# RESULTS AND ALSACHIEVED

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### RESULTS AND GOALS ACHIEVED

Reference is made to the letter of assignment to Petoro AS for 2016, and to the business plan for Petoro AS. The targets set in the letter of assignment and Petoro's performance in relation to these are presented below.

#### SAFEGUARDING THE STATE'S DIRECT PARTICIPATING INTERESTS

Petoro shall be an active partner that helps maximise the value of the SDFI portfolio through comprehensive assessments. The work shall be focused on areas and tasks where the company, based on the portfolio and in interaction with other players on the Norwegian Continental Shelf, can provide a particular contribution toward increased value creation, considering the state's overall financial interests. Petoro shall ensure efficient and profitable development and operations, as well as the safety of people and the environment.

#### OPERATIONAL TARGETS "Petoro shall establish operational targets as regards achieving liquids

production in accordance with the 2016 budget."

Management parameters: Liquids production, 1 000 bbls per day. Explanation and development over time.

Total liquids production in 2016 was 409 000 bbls per day. Production in 2016 was on a par with 2015 as a result of the natural production decline being offset by an increased drilling pace, as well as improved regularity.

Total production was 1 040 000 bbls of oil equivalent (boe) per day, about 3 per cent lower than in 2015, primarily as a result of lower gas production. Gas production in 2015 was particularly high, as gas volumes were shifted from 2014 to 2015. Regularity has been good throughout the year.

In addition to ordinary licence followup, where the operator and partners set production targets and the operator is challenged on nonconformity management and mitigating measures, Petoro's efforts were particularly aimed at measures to increase drilling efficiency. This represents an important instrument for implementing the planned drilling programme and maintaining high production.

#### "Petoro shall prepare operational targets as regards achieving: Reduced costs in order to ensure profitable development and attaining permanent reductions."

Management parameters: Field costs (percentage reduction from the previous year) Investment costs in NOK billion. Explanation and development over time.

Cost efficiency measures in the licenses have been an important part of Petoro's work in 2016, and have been aimed specifically at drilling, as well as operations and maintenance.

In 2016, Petoro has been a driving force for ensuring that ambitious goals are set for cost improvements in the licenses, e.g. by guaranteeing that both achieved and anticipated future improvements are reflected in an unbiased manner in the budgets. In its follow-up, Petoro has furthermore focused on ensuring that cost reductions are sustainable over the long term, so that the measures entail actual efficiency improvements and not merely a reduction in activity.

The field cost for all producing fields in the portfolio was reduced by 12 per cent from 2015, which means that the rate of improvement from 2015 continued in 2016. Field costs have been reduced by 24 per cent since 2013. The improvement was achieved without negative impacts on regularity or underlying KPIs for maintenance.

Drilling efficiency compared with 2015 has levelled out - the average cost and time per well has remained at the 2015 level. However, the drilling pace in 2016 was the highest in 10 years on the fixed installations in the portfolio. The improvement in 2016 was mainly due to the drilling facility's increased availability to drill additional wells per year.

Investment in 2016 amounted to NOK 28 billion, which was on a par with 2015. Production drilling accounts for approximately one-half of the investments.

#### "Petoro shall prepare operational targets as regards safeguarding safety and environmental concerns."

Management parameters: Serious incidents (frequency) and CO2 emissions (tonnes). Explanation and development over time.

2016 was marked by the tragic helicopter accident near Turøy on 29 April in which 13 people lost their lives. There has also been a very negative development in Petoro's HSE performance throughout the year, in which the serious incident frequency increased from 0.5 for 2015 to 1.0 in 2016. The personal injury frequency increased from 3.3 for 2015 to 4.1 in 2016. The last time HSE performance was at this level was in 2013.

A KPI for CO2 emissions (tonnes) was established for learning purposes in 2016 on the basis of the portfolio's eight largest emission sources on a field basis, which represents about 70 per cent of total emissions. The results show the same overall level, 2.3 million tonnes, for 2016 as for 2015, but with variations between fields. Reduced emissions have been registered on multiple fields resulting from energy efficiency measures, but this is largely offset by increased emissions from operational incidents, as well as start-up of Åsgard subsea compression.

No serious discharges to sea were recorded in 2016.

The comprehensive transition and change processes in the industry impact the overall risk picture. Petoro has addressed this in 2016 as a topic in the work to follow up major accident risk in the licences. A number of management visits have been conducted in 2016 as well, focusing on health, safety and the environment on selected fields and installations.

### PRIORITY TARGETS AND ACTIVITIES IN 2016

#### **MODNE FELT**

"Petoro shall endeavour to reduce uncertainty in the reserve and resource base, to promote evaluation and approval of additional wells, and to ensure that robust facility solutions are established. As part of this, Petoro shall pursue operational improvements as well as increased efficiency, in particular within drilling."

Management parameters: Describe how Petoro has contributed to reduce uncertainty in the reserve and resource base, and increase the number of wells. Describe how Petoro has continued to work as a driving force for reducing costs in order to achieve profitable development and lasting reductions. Particular focus on Petoro's contributions to increased drilling efficiency.

Petoro's commitment related to the mature fields aims to improve recovery from priority fields by choosing good solutions for long-term field development, drilling more wells per year, and drilling more efficiently. The SDFI portfolio is dominated by large holdings in mature fields. In addition to the volumes covered by today's plans, Petoro has identified more than 100 million scm in remaining reserves and additional resources with potential profitability in the mature fields portfolio. Factors that affect their realisation include marginal profitability, timecriticality and investment requirements. Petoro has long worked to clarify the reserve and resource base by mapping the remaining resource potential, and by identifying associated well targets so that field development decisions can be made on the basis of realistic long-term plans in the licences.

The need for streamlining and cost reductions within the drilling and well service area has been an important issue for Petoro over several years. As part of this effort, Petoro has monitored the development in drilling pace on 10 fixed installations on 5 selected fields in the portfolio. For this selected sample, the number of wells has doubled and drilling costs per well have been cut in half over the last three years. This result can mainly be attributed to increased drilling efficiency, simplified well design and increased availability of drilling facilities.

2016 has also seen impressive results in drilling progress, and the field cost for all producing fields was substantially lower than the previous year. This provides a good starting point for further improvement efforts in 2017, but new measures are necessary in order to realise additional improvement.

#### "Petoro shall direct its efforts towards projects for improved recovery from Snorre, Heidrun and Oseberg. These joint ventures are facing important choices and investment decisions over the next few years that will contribute to improved recovery and reduce the risk of loss of reserves."

Management parameters: Describe how Petoro has contributed to realising improved recovery projects on selected fields, including how it has been a driving force for identifying new well targets, utilising rig capacity as well as fixed drilling facilities.

In keeping with the strategy of realising value in mature fields, particular effort has been devoted to Snorre, Heidrun, Troll and Oseberg in 2016.

For many years, Petoro has been a strong advocate for realising profitable reserves on Snorre. These efforts have mainly been aimed at reinforcing the reserve potential, and have contributed to a December 2016 licence decision to continue a further development project based on a seabed solution that will provide for 24 new wells. An investment decision is planned in 2017, with production start-up in 2021. This expansion project will facilitate the realisation of significant remaining values in Snorre.

On Heidrun, Petoro has used its own simulation studies to increase understanding of the reservoir, and has contributed to increased basis reserves on the field. A concept selection for Heidrun lifetime extension was made in 2016, and this will facilitate long-term maturing of reserves. The efforts have largely focused on establishing a robust resource base for further development of the field, with particular emphasis on the northern parts.

In the Troll license, Petoro has been a driving force to guarantee utilisation of rig capacity by undertaking comprehensive assessments in well approval processes. Work also got under way in the Troll licence in 2016 to assess the possibility of producing the gas cap in Troll Vest (Troll phase 3). Petoro has contributed to the scope and timeframe for the work to ensure a comprehensive approach to further development of the Troll field.

Petoro's efforts on Oseberg in 2016 have focused on increasing the resource base and thus laying the groundwork for new investments in the "Oseberg further development" project.

#### FIELD DEVELOPMENT

"Petoro shall contribute to the selection of good solutions for new field developments in the SDFI portfolio, thus ensuring that they have sufficient flexibility to safeguard new opportunities and facilitate profitable long-term production."

Management parameters: Describe how Petoro has contributed to the selection of good, profitable solutions for new field developments.

Part of Petoro's revised 2016 strategy has been to focus on enhancing the competitiveness of the portfolio. As regards new field developments in the planning phase, substantial reductions have been achieved in investment estimates. At the same time, functionality has been retained which ensures that recoverable reserves are virtually unchanged. This means that competitiveness has increased, which provides an improved basis for maturing new, profitable projects in the portfolio.

On the basis of its experience, Petoro has chosen to concentrate attention on flexibility in development solutions that safeguard future opportunities, as well as facilitating long-term profitable lifetimes, rapid and effective use of technological opportunities for improved recovery, reservoir descriptions and subsea processing. In 2016, Petoro has focused on influencing concept choices in the Johan Castberg and Johan Sverdrup projects. In 2016 resources were expended, especially on following up Johan Sverdrup; see separate discussion below.

#### "Petoro shall contribute to ensure that a concept selection is made for phase 2 in Johan Sverdrup that also facilitates realisation of the volume basis in subsequent phases."

Management parameters: Describe initiatives and measures implemented to attain the objective, as well as the results and effects the measures will have on later phases. In 2016. Petoro made a strong contribution to the choice of concept for Johan Sverdrup phase 2, which safeguards the functionality necessary for the greatest possible value creation. Several alternatives with various needs for investments and associated consequences for functionality have been considered. Before the summer, the joint venture agreed to continue the solution from 2015 involving a new process platform with a separate "power from shore" module. in accordance with the original concept choice. This solution also provides adequate capacity to install future IOR measures. The project has been matured through 2016 leading up to a planned DG2 decision in March 2017. Investment costs have been significantly reduced through optimisation, and the project currently appears to be robust. Start of production for phase 2 is planned in the last six months of 2022.

#### "Petoro shall work towards a concept selection in Johan Castberg that maximises value and preserves options for future development."

Management parameters: Describe initiatives and measures implemented in order to achieve the goal and what results and effects the measures may have to secure good solutions for future development.

The license made a DG2 decision in December, and a final investment decision is planned for late 2017. The administration's efforts have been aimed at increasing value creation opportunities in the project as well as maintaining flexibility in the chosen concept.

#### MONITORING STATOIL'S MARKETING AND SALE OF THE STATE'S PETROLEUM

"Petoro shall monitor to ensure that Statoil conducts the marketing and sale of the state's petroleum alongside its own in accordance with the marketing and sale instructions issued to Statoil ASA. This includes contributing to equitable distribution of income and costs."

"As part of the company's monitoring of Statoil's marketing and sale, Petoro shall monitor the marketing and sale of the state's petroleum with emphasis on the changed market situation, as well as issues of great significance in value terms or matters of principle."

Management parameters: Describe which initiatives and activities have been carried out and which considerations form the basis for the company's priorities. What kinds of results have been achieved through the activities and what impacts this has had as regards values.

#### "As part of its monitoring of Statoil's marketing and sale, Petoro shall complete its work on revising the formula for oil and wet gas."

Management parameters: Report on results of the revision efforts, which should be complete during the first six months of the year. The revised formula for oil and wet gas should be implemented starting from the last six months of 2016.

All oil and NGL from the portfolio is sold to Statoil. Statoil is responsible for marketing all the SDFI's natural gas alongside its own gas as a single portfolio, but at the state's expense and risk. Petoro is responsible for monitoring that Statoil's sales of the SDFI's petroleum achieve the highest possible value, and for ensuring an equitable division of total value creation. In this effort, Petoro concentrates on Statoil's marketing and sales strategy, issues of great significance in value terms, matters of principle and questions relating to incentives.

In 2016, Petoro has prioritised focus on the implementation of a new follow-up system

for sale and marketing. This follow-up system will facilitate better reporting to Petoro on continuous activities, including a scorecard for the joint activity.

Petoro has furthermore contributed to the introduction of a revised formula for

LPG as of 2017. The changes will result in more equitable distribution of value creation than before.

The continued demanding market situation for oil and gas has led the company to devote attention to ensuring that the products are sold in markets where the highest price can be achieved. Optimum utilisation of the capacity and flexibility in production facilities and infrastructure is of great significance in this context, and follow-up of this has been a prioritised area. The role of gas in Europe's future energy mix is increasingly challenged by EU energy and climate policy. Petoro is keeping a close eye on this development.

Verifications have been conducted to ensure that SDFI is subject to its fair share of sales-related costs and revenues.

#### FINANCIAL MANAGEMENT

"Petoro shall;

- ensure sound financial management and control of SDFI pursuant to Regulations on Financial Management in Central Government and instructions for financial management of the SDFI
- prepare and follow up budgets and forecasts, conduct accountancy and perform periodic variance analyses and reporting on the SDFI's financial standing and development.
- secure good reconciliation routines and follow up to verify that the operators comply with the deadline set for submitting auditor's reports. "

In 2016, Petoro has also ensured sound financial management and control of the SDFI in line with the Regulations on Financial Management in Central Government and instructions for financial management of the SDFI. Petoro implemented a new version of the accounting system in 2016 that provides enhanced performance and greater opportunities for efficiency improvements in the reporting of achieved goals and results. Requirements for a new payment format have been introduced. In an assessment of overall management and control in 2016, internal audits concluded that Petoro has a good structure for management and control.

Petoro has also bolstered the quality of decision processes by expanding the basis for decisions on important SDFI matters.

Petoro has been responsible for accountancy and has also undertaken periodic variance analyses and reporting on the SDFI's financial standing and development as regards deadlines specified in the Letter of Assignment. Petoro has also ensured good reconciliation routines and followed up operators' compliance with deadlines set for submitting auditor's reports.

Petoro uses an accounting supplier for the SDFI accounts. In addition to its focus on quality, Petoro sets requirements for efficient deliveries from the accounting supplier as well. The contract has incorporated incentive schemes through a contractual target price. This has resulted in shorter lead times from the supplier and lower costs for Petoro. The company also received a clean auditor's statement from the Office of the Auditor General for 2015.

## **RESOURCE ACCOUNTS 2016**

The tables below present remaining reserves in resource classes 1 to 3, as well as resources in classes 4 to 8.

		Remaining recoverable resources				
	Resource classes 1-8	Oil, NGL and condensate mill scm	<b>Gas</b> bn scm	<b>Oil equivalent</b> mill scm		
RC 1-3	Reserves	236.7	711.6	948.3		
RC 4	Resources in the planning phase	63.0	36.1	99.2		
RC 5	Recovery likely but not clarified	40.8	46.0	86.7		
RC 6	Development unlikely	11.3	9.6	20.9		
RC 7	Resources in new discoveries not evaluated and potential future IOR measures	61.0	38.9	99.9		
RC 8	Prospects	18.3	14.8	33.1		
	Total	431.2	856.9	12 88.1		

	Original recoverable reserves			Remaining reserves		
Field	<b>Oil and NGL*</b> mill scm	<b>Gas</b> bn scm	<b>Oil equivalent</b> mill scm	<b>Oil and NGL*</b> mill scm	<b>Gas</b> bn scm	<b>Oil equivalent</b> mill scm
ATLA	0.10	0.41	0.51	0.04	0.04	0.08
DRAUGEN	71.60	0.81	72.41	3.06	0.01	3.07
DVALIN	0.30	6.28	6.58	0.30	6.28	6.58
EKOFISK	28.76	7.95	36.71	4.24	0.68	4.91
ELDFISK	7.07	2.17	9.25	1.23	0.14	1.37
EMBLA	0.65	0.34	0.99	0.06	0.13	0.19
FLYNDRE	0.01	0.00	0.01	0.01	0.00	0.01
FRAM H-NORD	0.08	0.00	0.08	0.02	0.00	0.02
GIMLE	0.85	0.26	1.11	0.07	0.05	0.11
GJØA	9.01	10.81	19.82	2.92	4.69	7.60
GRANE	41.68	0.00	41.68	10.83	0.00	10.83
GULLFAKS	115.33	6.92	122.25	4.83	0.00	4.83
GULLFAKS SØR	25.63	25.41	51.04	7.06	11.43	18.49
HEIDRUN	110.32	28.32	138.64	20.15	18.17	38.32
JETTE	0.13	0.00	0.13	0.00	0.00	0.00

_	Original recoverable reserves			Remaining reserves			
Field	<b>Oil and NGL*</b> mill scm	<b>Gas</b> bn scm	<b>Oil equivalent</b> mill scm	<b>Oil and NGL*</b> mill scm	<b>Gas</b> bn scm	<b>Oil equivalent</b> mill scm	
JOHAN SVERDRUP	50.25	1.48	51.73	50.25	1.48	51.73	
KRISTIN	7.08	5.68	12.76	0.87	1.04	1.92	
KVITEBJØRN	16.24	28.94	45.18	5.55	8.95	14.50	
MARIA	8.65	0.67	9.32	8.65	0.67	9.32	
MARTIN LINGE	4.43	7.75	12.18	4.43	7.75	12.18	
NORNE	50.68	5.49	56.17	1.43	1.63	3.06	
ORMEN LANGE	7.11	108.82	115.94	2.51	45.20	47.71	
OSEBERG	142.31	39.00	181.31	10.34	23.98	34.32	
OSEBERG SØR	23.21	7.26	30.47	4.92	3.53	8.45	
OSEBERG ØST	9.18	0.13	9.31	2.32	0.02	2.34	
REV	0.27	0.80	1.06	0.02	0.00	0.02	
SKIRNE	0.70	3.20	3.90	0.10	0.14	0.25	
SKULD	1.42	0.09	1.51	0.61	0.01	0.62	
SNORRE	85.76	1.99	87.75	20.69	0.08	20.78	
SNØHVIT	12.37	67.13	79.51	9.15	54.73	63.89	
STATFJORD NORD	13.11	0.65	13.76	1.30	(0.06)	1.23	
STATFJORD ØST	12.57	1.22	13.79	0.66	0.01	0.67	
SVALIN	2.80	0.00	2.80	1.49	0.00	1.49	
SYGNA	3.38	0.00	3.38	0.30	0.00	0.30	
TORDIS	20.93	1.45	22.38	2.29	0.16	2.45	
TROLL	185.69	802.35	988.04	29.46	481.44	510.91	
TUNE	1.49	7.47	8.96	(0.05)	(0.36)	(0.40)	
URD	1.98	0.07	2.05	0.45	0.01	0.45	
VALEMON	0.90	4.98	5.88	0.68	3.69	4.37	
VEGA	5.52	4.95	10.47	2.95	2.84	5.79	
VESLEFRIKK	21.74	2.07	23.81	0.59	0.81	1.40	
VIGDIS	21.48	0.54	22.02	3.01	0.00	3.01	
VISUND	15.39	16.69	32.08	5.96	13.12	19.08	
VISUND SØR	1.29	1.79	3.07	0.48	0.97	1.45	
ÅSGARD	70.03	76.31	146.35	10.47	18.11	28.58	
Total	1209.49	1288.65	2498.14	236.70	711.58	948.28	