

Independent Reserves Audit Yumna Field, Block 50 Offshore Oman Summary Report - March 2025



17th March 2025 Our Ref: E0138-RES-REP-001 V1.3

Exceed

Registered Office Address: 1 Rubislaw Terrace, Aberdeen Scotland, UK, AB10 1XE T: +44(0)1224 577940 E: info@xcd.com





Document Approval

			EXCEED		
	TITLE	NAME	SIGNATURE	DATE	ROLE
Authors:	Mr	H. Jutila	Heikki Jutila	17 th Mar 2025	Team Member
	Mrs	K. Howell	Katharine Howell	17 th Mar 2025	Team Member
Reviewed By:	Mr	M. Cullen	Mark Cullen	17 th Mar 2025	Team Member
Approved By:	Mr	S. Hayhurst	9 4	17 th Mar 2025	Qualified Person

Issue Summary

Issue Number	Date	Description of Revision or Amendment
1.0	13 th Feb 2025	Draft for Client
1.1	14 th Feb 2025	Final Draft for Client
1.2	27 th Feb 2025	Final Version for Client
1.3	17 th Mar 2025	Version for Release

© Copyright Exceed Torridon Ltd. All rights reserved.

The copyright in this document, which contains information of a proprietary and confidential nature, is vested in Exceed Torridon which includes its affiliates and parent company. The report has been prepared for the exclusive use of our client and its parent, and or subsidiaries, and applicable requirements of Practice Note 6.3 of the Listing Manual of the Singapore Exchange Securities Trading Limited (SGX) for a Summary Qualified Person's Report, unless otherwise agreed in writing by Exceed Torridon, any of its subsidiaries, or a related entity (collectively 'XCD'), no other party may use, make use of, or rely on the contents of this report.

The report has been compiled using the resources agreed with the client and in accordance with the scope of work agreed with the client. No liability is accepted by XCD for any use of this report, other than the purpose for which it was prepared. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. XCD does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to, or arising out of any use or reliance on the report.

XCD accepts no responsibility for any documents or information supplied to XCD by others and no legal liability arising from the use by others of opinions or data contained in this report. It is expressly stated that no independent verification of any documents or information supplied by others has been made. XCD has used reasonable skill, care, and diligence in compiling this report and no warranty is provided as to the report's accuracy. No part of this report may be copied or reproduced, by any means, without the prior written consent of XCD.



Exceed Torridon Limited 1 Rubislaw Terrace, Aberdeen, Scotland, UK AB10 1XE

Our Reference : E0138-RES-REP
Date : 17th March 2025

Masirah Oil Limited Coral Building, 3rd Floor Building Number 3235, Way No 3341 PO. Box 1552, P.C.:130 Muscat 115, OMAN

Attention : Mr Mike Hopkinson

Subject : Independent Reserves Estimation Yumna Field, Block 50 Offshore Oman

This Summary Qualified Person's Report ("QPR") has been prepared by Exceed Torridon Ltd, 1 Rubislaw Terrace, Aberdeen AB10 1XE, United Kingdom, and has been prepared in accordance with the applicable requirements in Practice Note 6.3 of the Singapore Exchange Securities Trading Limited's Mainboard Listing Rules.

Yours sincerely,

For Exceed Torridon Limited

Tuille

Mr Ian Mills

Managing Director

1 SUMMARY

1.1 Introduction

This Summary Qualified Persons Report (QPR) has been prepared at the request of Masirah Oil Ltd ("Masirah", or the "Company") by Exceed Torridon Ltd (XCD) as an independent Reserves Estimator. The QPR summary is based on work carried out by XCD to update dynamic and static models of the Yumna Field.

This Summary QPR has been approved for issue by Mr Ian Mills; the Managing Director of Exceed Torridon Limited, and Mr Stephen Hayhurst; the Qualified Person of Exceed Torridon Limited. Mr Hayhurst has over 36 years in the oil & gas industry and currently holds the position of Production Technology and Petroleum Engineering Manager. He holds the following qualifications: BSc (Honours) Geology, MSc Petroleum Engineering and an MBA in Oil & Gas Management. He is also a Chartered Engineer (CEng) and a Fellow of the Energy Institute (FEI) and has been a member of the Society of Petroleum Engineers (SPE) for 34 years.

1.2 Aim of this Summary

This Summary QPR aims to provide updated estimates on the remaining reserves of the Yumna Field as of 31st December 2024.

1.3 Scope & Standards used in this Summary

This Summary QPR is prepared in line with the standards set out under the Petroleum Resource Management System ("PRMS") to include production from the Yumna-1, Yumna-2, Yumna-3, Yumna-4 and Yumna-5 wells until 31st December 2024, in the Yumna Field. Masirah drilled the Yumna-5 production well in early 2024 which was put into production in April 2024.

1.4 Basis of the Summary

XCD provided Masirah Oil an updated static and dynamic reservoir model in late 2023 and Yumna-5 well was drilled based on the recommendations from this work. The field exceeded the production forecast, and the model was updated in October 2024 to better describe the production. The updated forecast has been accurate.

The same model was used to provide, together with production forecasts, an estimate the remaining reserves under various development options as of 31st December 2024.

1.5 History

The Yumna discovery was made in the GA-South-1 well which was spudded in December 2013. The well tested a NE-trending fault-block in the Cretaceous and Precambrian. The well encountered hydrocarbons in the Campanian Lower Aruma Sandstone Formation. The well was tested and flowed oil at a maximum rate of 3,481 stb/d. The oil density was light with 42°API. The first development well, Yumna-1, was spudded in December 2019 and completed in February 2020. The well was put on test production from the drilling rig, producing via a flexible flowline to a tanker moored some 500m away. In April 2020, production was transferred to a Mobile Offshore Production Unit (MOPU).

Production continued throughout 2020 from Yumna-1. In December 2020, Masirah commenced drilling operations with the Shelf Drilling Tenacious jack-up rig, to add on the Yumna-2 and Yumna-3 production wells. Yumna-2 was spudded on 10th December 2020 and was put on production on 23rd January 2021. The well started production at a rate of 9,000 stb/d of oil. The rate was constrained by the size of the down-



hole Electrical Submersible Pump installed in the well. Yumna-3 was spudded on 20th January 2021 and production commenced on 18th February 2021 at a rate of 12,984 stb/d of oil on natural flow through an 80/64" choke. Yumna-4 was spudded on 24th October 2022 and production commenced 2nd January 2023 at a rate of 2,342.5 stb/d of oil on natural flow on a 32/64" choke. Yumna-5 came on stream 26th of April 2024 at 2,605 stb/d of oil on a 46/64" choke.

The forward plan is to continue producing from the current well stock whilst continuously optimising the production rates. Further development wells are planned. The 2025 drilling and workover campaign includes drilling Yumna-6 at the northern extremity of the structure to drain oil left un-swept by the current producers. The possible drilling of Yumna-7 also to the north of the field will complete the development of the Yumna Field.

In view of the field depletion through production and creation of new models, an update of the remaining reserves estimate is prudent. The STOIIP (stock tank oil initially in place) is updated based on the modelling work carried out in 2024. The reserves presented herein are based on new assumptions for economic cut-off.

As of 31st December 2024, the Yumna Field had produced 9.07 MMstb. Based on the recoverable reserves estimate from the 2024 work, the remaining reserves are presented in Table 1-1.

			h Net Entitl Volume ^{2, 3}	ement	Rex's 87	7.5% Net Enti Volume ^{2,3}	tlement		
Category	Gross Attributable to Licence (MMstb) ^{1,2}	Previous Report (MMstb) ⁴	Current Report (MMstb) ⁵	% Change from Previous Update	Previous Report (MMstb) ⁴	Current Report (MMstb) ^{5,7}	% Change from Previous Update	Risk Factors ⁶	Remarks
Reserves	5								
Low 1P	0.6	1.0	0.4	-60%	0.9	0.4	-55%	NA	Change due to production ⁵ , improved terms, change in REX share of Masirah, maturation of reserves and updated volumetrics.
Base 2P	4.8	2.0	3.7	+85%	1.8	3.2	+77%	NA	Change due to production ⁵ , improved terms, change in REX share of Masirah, maturation of reserves and updated volumetrics.
High 3P	5.3	2.9	4.1	+41%	2.7	3.6	+33%	NA	Change due to production ⁵ , improved terms, change in REX share of Masirah, maturation of reserves and updated volumetrics.

Table 1-1: Yumna Field Summary of Oil Reserves as of 31st December 2024

- 1. Gross field Reserves (100% basis) after economic limit test as of 31st December 2024
- 2. Economic cut off year for the 1P, 2P and 3P reserves are December 2025, January 2029 and January 2029, respectively.
- 3. Company net entitlement Reserves after economic limit test
- 4. Volume as of 31st December 2023
- 5. Volume after subtraction of net entitlement production plus revision and maturation of reserves
- 6. No risk is applied to Reserves.
- 7. REX International Holding Ltd's share has reduced to 87.5% through various transactions from 91.81% in the previous report

NA Denotes not applicable.

1.6 Background

Current ownership of Masirah includes Rex International Holding Ltd (87.5%) and PETROCI (the National Oil Company of Côte D'Ivoire) (12.5%).

Table 1-2 gives a detailed description of the asset.

Asset name / Country	Masirah Interest (%)	Rex Interest (%)	Development Status	Licence expiry date	Licence Area	Type of mineral, oil or gas deposit	Remarks
Yumna Field, OMAN	100 %	87.5%	Developed and producing	12 th July 2030 or until the field waters out	Block 50, Oman	Oil Field	N/A

Table 1-2: Yumna Field Detailed Description

The Yumna Field lies within the Block 50 License located on the eastern coast of the Sultanate of Oman Figure 1-1, in a water depth of some 30 metres. The License is owned and operated by Masirah. The Yumna Field is the first discovery in Block 50 Oman and is located in the Masirah Graben geological feature. Further prospects are being evaluated within the License area. The principal terms and conditions for the concession are discussed in detail in the XCD QPR, including fiscal conditions, environmental and rehabilitation requirements, abandonment costs and consents.

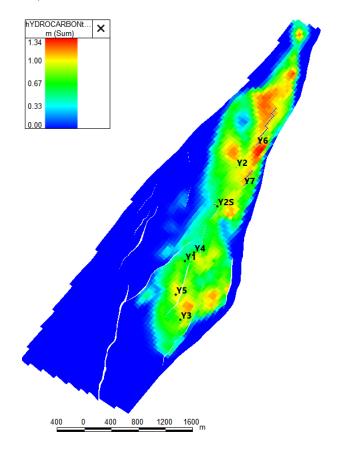


Figure 1-1: Map of the Yumna Field showing the well locations

The development of estimated in place resource has been positive during the development of the field. From well data, additional reserves have been identified and added to the STOIIP. The development is summarised in Table 1-3. This shows an improvement of the estimation and reduction in uncertainty of the volumes in place between the 2020 and 2024 work.

The three reserves cases are based on future work programme:

- 1P continue operations as per current plan with no further investment
- 2P drilling of Yumna-6 in addition to 1P activities.
- 3P drilling of Yumna-7 in addition to 2P activities.

STOIIP (MMstb) Ultimate Recovery4 (MMstb) RPS 20201 XCD End 2021² End XCD RPS 20201 End 2022³ XCD XCD End 20223 20245 20212 2023⁴ 2023⁴ 20246 Low 1P 9.7 24.5 11.5 14.6 28.6 10.0 12.7 9.6 22.1 4.4 Base 2P 18.1 23.5 29.1 24.3 28.7 9.6 12.2 15.8 11.1 13.8 High 3P 26.7 24.5 32.1 34.5 29.3 14.6 13.3 17.4 12.6 14.3

Gross Attributable to Licence

Table 1-3: Yumna Field STOIIP and Reserve History

- 1. RPS Reserves Audit as of 30th June 2020 dated 26th October 2020 after Yumna Field had produced approximately 1.05 MMstb.
- 2. Reserves Summary 2022 QPR dated 24th February 2022.
- 3. Reserves Summary 2023 QPR dated 2nd March 2023.
- 4. XCD Independent Reserves Estimation 14th March 2024
- 5. 'Dynamic' STOIIP based on accuracy of over 100 simulation models' matches to actual production and pressures
- 6. Based on Base Model with varying development options

1.7 Technical review

During 2024, 0.864 MMstb gross oil was produced from the Yumna Field from four wells: Yumna-2, Yumna-3, Yumna-4 and Yumna-5. Yumna-1 was shut-in due to Electrical Submersible Pump (ESP) issues and Yumna-2 was temporarily shut-in at the end of 2024 for review of gas lift optimisation. The oil rate peaked at 4,300 stb/d on 26th of April 2024. The rate has slowly declined to 2,700 stb/d of oil. The field has continued to experience strong water drive from a very large aquifer. Based on the production rates and other production data, along with the strong aquifer and high reservoir permeability, it is concluded that the recovery factor is best reflected by the higher value in the reserves summary +/-45%.

Based on well data from Yumna-5 of the reservoir, the reservoir properties (porosity and permeability) appear to be in line with predictions. The reservoir thickness is roughly as predicted. The petrophysical analysis of Yumna-5 showed very effective sweep with the lowermost part at the same level as Yumna-1 perforations with oil saturations at residual levels.



1.8 Remaining Reserves

The remaining Yumna Field reserves are estimated based on the new reservoir model presented in the XCD QPR, which carries reserves numbers with production up to 31st December 2024. The production data suggests a Recovery Factor of +/-45% The produced volumes have been subtracted from the updated STOIIP volumes for each of the three cases (Low, Base, High) on a gross basis attributable to the licence, and on a net entitlement basis to Masirah (Table 1-1). The Masirah net entitlement basis is found after an economic limit test, with economic cut-off year for Low, Base, and High case at December 2025 for Low case and January 2029 for the Base and High Cases. The remaining reserves are presented in Table 1-1 above

A constant Brent price of \$75/bbl has been used for oil calculations presented in this report to obtain an economic cut-off limit for the production.

1.9 Way forward

Further development wells are currently in the plan to drain the Yumna Field more effectively. Yumna-6 is planned to be spudded in the second half of 2025. It is in the far northern part of the field, north of Yumna-2. It is possibly followed by Yumna-7 depending on the results of Yumna-6. Yumna-6 as a horizontal well is included in P2. Yumna-7 horizontal well is included in P3.

1.10 Summary References

RPS Group PLC, 26th October 2020: "INDEPENDENT RESERVES AUDIT OF THE YUMNA FIELD AND EVALUATION OF PROSPECTIVE RESOURCES, BLOCK 50, OFFSHORE OMAN", commissioned to Masirah Oil Limited, 85 pages.

https://investor.rexih.com/newsroom/20201027_224719_5WH_H69MKT98A9OTP4S7.3.pdf

Summary Qualified Person's Report, 5th March 2021: "YUMNA FIELD, BLOCK 50, UPDATE OF INDEPENDENT RESERVES AUDIT SUMMARY", In-house summary QPR, 7 pages. 20210305_181930_5WH_IOL4DL2LE8J1DM9P.2.pdf (rexih.com)

Summary Qualified Person's Report, 24th February 2022: "YUMNA FIELD, BLOCK 50, UPDATE OF INDEPENDENT RESERVES AUDIT SUMMARY", In-house summary QPR, 10 pages. 20220224_YumnaSummaryQPR_2022_Final.pdf (rexih.com)

Summary Qualified Person's Report, 2nd March 2023: "YUMNA FIELD, BLOCK 50, UPDATE OF INDEPENDENT RESERVES AUDIT SUMMARY", In-house summary QPR, 12 pages. 20230302_YumnaSummaryQPR_Final.pdf (rexih.com)

Independent Reserves Audit, 14th of March 2024:"YUMNA FIELD, BLOCK 50, OFFSHORE OMAN SUMMARY REPORT", Exceed Torridon Ltd, Abeerdeen Scotland

Recent announcements by Rex related to Masirah:

30th Dec 2024: Rex Restructures And Streamlines Its Shareholdings In Masirah Oil Ltd

10th Dec 2024: Norway & Oman Production Update - November 2024

19th Nov 2024: Norway & Oman Production Update - October 2024

10th Oct 2024: Norway & Oman Production Update - September 2024

11th Sep 2024: Norway & Oman Production Update - August 2024



- 12th Aug 2024: Norway & Oman Production Update July 2024
- 15th Jul 2024: Norway & Oman Production Update June 2024
- 24th Jun 2024: Masirah Oil Completes Multi-Well Programme In Yumna Field
- 10th Jun 2024: Norway & Oman Production Update May 2024
- 10th May 2024: Norway & Oman Production Update April 2024
- 16th Apr 2024: Norway & Oman Production Update March 2024
- 28th Mar 2024: Masirah Oil Starts Multi-Well Programme In Yumna Field
- 14th Mar 2024: Independent Summary Qualified Person's Report Yumna
- 12th Mar 2024: Norway & Oman Production Update February 2024
- 29th Feb 2024: Masirah Oil Signs Jack-Up Drilling Rig Contract For Multi-Well Programme In Yumna Field
- 15th Feb 2024: NORWAY & OMAN PRODU29CTION UPDATE JANUARY 2024
- 9th Jan 2024: NORWAY & OMAN PRODUCTION UPDATE DECEMBER 2023
- 19th Dec 2023: NORWAY PRODUCTION NOVEMBER 2023 AND OMAN UPDATE
- 14th Nov 2023: NORWAY & OMAN PRODUCTION UPDATE OCTOBER 2023
- 9th Nov 2023: USE OF FUNDS/CASH BY MINERAL, OIL AND GAS COMPANIES
- 10th Oct 2023: NORWAY & OMAN PRODUCTION UPDATE SEPTEMBER 2023
- 12th Sep 2023: Rex Provides Business and Strategy Update
- 11th Sep 2023: NORWAY & OMAN PRODUCTION UPDATE AUGUST 2023
- 14th Aug 2023: OMAN & NORWAY PRODUCTION UPDATE JULY 2023
- 11th Aug 2023: FINANCIAL STATEMENTS AND RELATED ANNOUNCEMENT HALF YEARLY RESULTS
- 13th Jul 2023: OMAN & NORWAY PRODUCTION UPDATE JUNE 2023
- 12th Jun 2023: OMAN & NORWAY PRODUCTION UPDATE MAY 2023
- 12th May 2023: USE OF FUNDS/CASH BY MINERAL, OIL AND GAS COMPANIES
- 9th May 2023: OMAN & NORWAY PRODUCTION UPDATE APRIL 2023
- 12th Apr 2023: OMAN & NORWAY PRODUCTION UPDATE MARCH 2023
- 21st Mar 2023: INDEPENDENT SUMMARY QUALIFIED PERSON'S REPORTS
- 9th Mar 2023: OMAN & NORWAY PRODUCTION UPDATE FEBRUARY 2023
- 3rd Mar 2023: SUMMARY QUALIFIED PERSON'S REPORT
- 1st Mar 2023: FINANCIAL STATEMENTS AND RELATED ANNOUNCEMENT FULL YEARLY RESULTS
- 10th Feb 2023: OMAN & NORWAY PRODUCTION UPDATE JANUARY 2023



10th Jan 2023: OMAN & NORWAY PRODUCTION UPDATE - DECEMBER 2022

9th Jan 2023: DRILLING CAMPAIGN IN BLOCK 50 OMAN COMPLETED

7th Dec 2022: OMAN & NORWAY PRODUCTION UPDATE - NOVEMBER 2022

14th Nov 2022: APPRAISAL / EXPLORATION WELL SPUDDED IN OMAN

9th Nov 2022: OMAN & NORWAY PRODUCTION UPDATE - OCTOBER 2022

13th Oct 2022: OMAN & NORWAY PRODUCTION UPDATE - SEPTEMBER 2022

7th Sep 2022: OMAN & NORWAY PRODUCTION UPDATE - AUGUST 2022

12th Aug 2022: <u>FINANCIAL STATEMENTS AND RELATED ANNOUNCEMENT - HALF YEARLY RESULTS</u>

8th Aug 2022: <u>OMAN & NORWAY PRODUCTION UPDATE</u>

21st Jul 2022: <u>UPDATE ON YUMNA FIELD</u>

7th Jul 2022: <u>OMAN & NORWAY PRODUCTION UPDATE - JUNE 2022</u>

23rd Jun 2022: PRODUCTION AND DRILLING CAMPAIGN IN BLOCK 50 OMAN

20th Jun 2022: NORWAY & OMAN PRODUCTION UPDATE - MAY 2022

9th May 2022: OMAN & NORWAY PRODUCTION UPDATE - APRIL 2022

18th Apr 2022: OMAN & NORWAY PRODUCTION UPDATE - MARCH 2022

17th Mar 2022: OMAN & NORWAY PRODUCTION UPDATE - FEBRUARY 2022

9th Mar 2022: UPDATE ON BLOCK 50 OMAN

28th Feb 2022: FINANCIAL STATEMENTS AND RELATED ANNOUNCEMENT - FULL YEARLY RESULTS

24th Feb 2022: SUMMARY QUALIFIED PERSON'S REPORT

23rd Feb 2022: OMAN & NORWAY PRODUCTION UPDATE - JANUARY 2022

13th Jan 2022: REX'S 2021 ROUND-UP: A TRANSFORMATIONAL YEAR

10th Jan 2022: OMAN PRODUCTION UPDATE - DECEMBER 2021

16th Dec 2021: REX SUBSIDIARY INCREASES STAKE IN MASIRAH OIL LIMITED TO 91.81% - COMPLETION

7th Dec 2021: OMAN PRODUCTION UPDATE - NOVEMBER 2021

22nd Nov 2021: REX SUBSIDIARY INCREASES STAKE IN MASIRAH OIL LIMITED TO 91.81%

10th Nov 2021: OMAN PRODUCTION UPDATE - OCTOBER 2021

5th Oct 2021: OMAN PRODUCTION UPDATE – SEPTEMBER 2021

7th Sep 2021: OMAN PRODUCTION UPDATE – AUGUST 2021

11th Aug 2021: MASIRAH OIL LTD

3rd Aug 2021: OMAN PRODUCTION UPDATE - JULY 2021



5th Jul 2021: OMAN PRODUCTION UPDATE – JUNE 2021

18th Jun 2021: OMAN PRODUCTION UPDATE – MAY 2021

4th May 2021: OMAN PRODUCTION UPDATE – APRIL 2021

20th Apr 2021: OMAN PRODUCTION UPDATE - MARCH 2021

5th Apr 2021: <u>REX'S SUBSIDIARY COMPLETES DRILLING PROGRAMME COMMITMENT IN OMAN</u>

17th Mar 2021: REX'S SUBSIDIARY COMPLETES UPGRADE OF YUMNA FIELD PROCESS FACILITIES

23rd Feb 2021: REX'S SUBSIDIARY SPUDS ZAKHERA EXPLORATION WELL IN BLOCK 50 OMAN

22nd Feb 2021: REX'S SUBSIDIARY STARTS PRODUCTION AT YUMNA 3 WELL IN BLOCK 50 OMAN

1st Feb 2021: <u>REX'S SUBSIDIARY STARTS PRODUCTION AT YUMNA 2 WELL IN BLOCK 50 OMAN</u>

14th Dec 2020: REX'S SUBSIDIARY SPUDS YUMNA 2 DEVELOPMENT WELL IN BLOCK 50 OMAN

13th Aug 2020: <u>OMAN OIL PRODUCTION A GAME CHANGING START FOR REX IN 1H FY2020</u>

17th Jul 2020: <u>REX UPDATE: MAJOR MILESTONE ACHIEVED IN OMAN AND WELL IN NORWAY TO BE DRILLED</u>

IN LATE AUGUST 2020

28th Feb 2020: REX IN THE BLACK FOR FY2019; READY FOR RECURRENT INCOME FROM OMAN

17th Feb 2020: REX'S SUBSIDIARY ACHIEVES SUCCESSFUL OIL FLOW FROM YUMNA 1 WELL IN OMAN

APPENDIX A - GLOSSARY OF TERMS

1C	The low estimate of Contingent Resources. There is estimated to be a 90% probability that the quantities actually recovered could equal or exceed this estimate						
2C	The best estimate of Contingent Resources. There is estimated to be a 50% probability that the quantities actually recovered could equal or exceed this estimate						
3C	The high estimate of Contingent Resources. There is estimated to be a 10% probability that the quantities actually recovered could equal or exceed this estimate						
1P	The low estimate of Reserves (proved). There is estimated to be a 90% probability that the quantities remaining to be recovered will equal or exceed this estimate						
2P	The best estimate of Reserves (proved+probable). There is estimated to be a 50% probability that the quantities remaining to be recovered will equal or exceed this estimate						
3P	The high estimate of Reserves (proved+probable+possible). There is estimated to be a 10% probability that the quantities remaining to be recovered will equal or exceed this estimate						
1U	The low estimate of Prospective Resources. There is estimated to be a 90% probability that the quantities actually recovered could equal or exceed this estimate						
2U	The best estimate of Prospective Resources. There is estimated to be a 50% probability that the quantities actually recovered could equal or exceed this estimate						
3U	The high estimate of Prospective Resources. There is estimated to be a 10% probability that the quantities actually recovered could equal or exceed this estimate						
AVO	Amplitude versus Offset						
В	Billion						
bbl(s)	Barrels						
bbls/d	barrels per day						
Bcm	billion cubic metres						
Bg	gas formation volume factor						
Bgi	gas formation volume factor (initial)						
Во	oil formation volume factor						
Boi	oil formation volume factor (initial)						
Bw	water volume factor						
boe	Barrels of oil equivalent						
stb/d	barrels of oil per day						
ВНР	Bottom hole pressure						
Bscf	billions of standard cubic feet						
bwpd	barrels of water per day						
condensate	liquid hydrocarbons which are sometimes produced with natural gas and liquids derived from natural gas						
сР	Centipoise						
Eclipse	a fluid modelling software package						



Egi	Gas Expansion Factor					
EMV	Expected Monetary Value					
EUR	Estimated Ultimate Recovery					
FBHP	flowing bottom hole pressure					
FTHP	flowing tubing head pressure					
ft	Feet					
FWHP	Flowing well head pressure					
FWL	Free Water Level					
GDT	Gas Down To					
GIIP	Gas Initially in Place					
GOC	Gas oil Contact					
GOR	gas/oil ratio					
GRV	gross rock volume					
GWC	gas water contact					
IPR	Inflow performance relationship					
IRR	internal rate of return					
КВ	Kelly Bushing					
ka	absolute permeability					
kh	horizontal permeability					
km	Kilometres					
LPG	Liquefied Petroleum Gases					
m	Metres					
m3	cubic metres					
m3/d	cubic metres per day					
ma	million years					
M	Thousand					
M\$	thousand US dollars					
MBAL	Material balance software					
Mbbls	thousand barrels					
mD	permeability in millidarcies					
MD	measured depth					
MDT	Modular formation dynamics tester tool					
MM	Million					
MMbbls	million barrels					
MMscf/d	millions of standard cubic feet per day					
MMstb	million stock tank barrels (at 14.7 psi and 60° F)					



MMt	millions of tonnes						
MM\$	million US dollars						
MPa	mega pascals						
m/s	metres per second						
msec	Milliseconds						
Mt	thousands of tonnes						
mV	Millivolts						
NTG or N:G	Net-to-gross ratio						
NGL	Natural Gas Liquids						
NPV	Net Present Value						
OWC	oil water contact						
P90	There is estimated to be at least a 90% probability (P90) that this quantity will equal or exceed this low estimate						
P50	There is estimated to be at least a 50% probability (P50) that this quantity will equal or exceed this best estimate						
P10	There is estimated to be at least a 10% probability (P10) that this quantity will equal or exceed this high estimate						
PDR	Physical Data Room						
Petrel	A geoscience and reservoir engineering software package						
petroleum	deposits of oil and/or gas						
phi	porosity fraction						
pi	initial reservoir pressure						
PI	productivity index						
ppm	parts per million						
psi	pounds per square inch						
psia	pounds per square inch absolute						
pwf	flowing bottom hole pressure						
PSDM	Pre-stack depth migrated seismic data						
PSTM	Pre-stack time migrated seismic data						
PVT	pressure volume temperature						
rb	barrel(s) of oil at reservoir conditions						
rcf	reservoir cubic feet						
REP™	A Monte Carlo simulation software package						
RF	Recovery factor						
RFT	repeat formation tester						
RKB	relative to kelly bushing						
rm3	reservoir cubic metres						



SCADA	supervisory control and data acquisition						
SCAL	Special Core Analysis						
scf	standard cubic feet measured at 14.7 pounds per square inch and 60° F						
scf/d	standard cubic feet per day						
scf/stb	standard cubic feet per stock tank barrel						
SGS	Sequential Gaussion Simulation						
SIBHP	Shut in bottom hole pressure						
SIS	Sequential Indicator Simulation						
SMT	A geoscience software package						
sm3	standard cubic metres						
So	oil saturation						
Soi	irreducible oil saturation						
Sor	residual oil saturation						
Sorw	residual oil saturation (waterflood)						
sq. km	square kilometers						
stb	stock tank barrels measured at 14.7 pounds per square inch and 60° F						
stb/d	stock tank barrels per day						
STOIIP	stock tank oil initially in place						
Sw	water saturation						
Swc	connate water saturation						
\$	United States Dollars						
t	Tonnes						
THP	tubing head pressure						
Tscf	trillion standard cubic feet						
TVDSS	true vertical depth (sub-sea)						
TVT	true vertical thickness						
TWT	two-way time						
US\$	United States Dollar						
VDR	Virtual data room						
VLP	Vertical lift performance						
Vsh	shale volume						
VSP	Vertical Seismic Profile						
W/m/K	watts/metre/° K						
WC	water cut						
WUT	Water Up To						
Z	a measure of the "non-idealness" of gas						



ø	Porosity
μ	Viscosity
μgb	viscosity of gas
μob	viscosity of oil
μw	viscosity of water



Registered Head Office:

1 Rubislaw Terrace, Aberdeen, Scotland, UK, AB10 1XE +44(0)1224 577940 | info@xcd.com | xcd.com

Exceed is the trading name of the following companies:
Exceed (XCD) Holdings Ltd, Exceed Performance Ltd, XCD Ltd,
Exceed (XCD) Canada Ltd, Exceed Torridon Ltd, Exceed I-Vision Ltd,
Exceed Well Management Chana, Exceed MPR Ltd, Exceed Norge AS,
Exceed Mexico Ltd S. de R.L. de C.V.



