



STEP OIL Ltd Asset-class Security Token Offering (STO)

STEP OIL Company Ltd

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Arys MUNAY LLP UST Resources LLP



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This Confidential Information Memorandum and Business Summary, date XXX (the "Memorandum"), has been provided by Step Oil Company, Ltd. Step Oil Company Ltd. is issuing a Crypto Currency in order to secure financing the purchase of three major oil fields in the Republic of Kazakhstan. References in this summary to "Step Oil Company Ltd" "Step Oil." "we," "our" and "us" are to Step Oil Company, Ltd. and its subsidiaries.

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All discussions regarding Step Oil Company, Ltd. and its projects are to be considered confidential. Interested parties may not disclose to others (unless required to do so by law) that they are engaged in any evaluation of these or related projects. All communications, inquiries and requests for information relating to Step Oil Company, Ltd. should be directed to the address and phone numbers listed in the contact section of this document.

The Security Token Offering

This Security Token Offering ("STO") aims at raising funds to "tokenize" the purchasing and ownership of three selected oil fields based on blockchain technology. This STO intends to be fully compliant with any and all KYC/AML and tax obligations and securities regulations. Trading of the Tokens (as defined below) in the secondary market is expected to take place in the near future.



Eligibility

Step Oil Company Ltd founded in 2016 is a duly formed company registered in the United Kingdom (London), subject to the provisions and obligations related to Anti-Money Laundering ("AML") and Know Your Customer ("KYC") procedures of , namely the Proceeds of Crime Law (Revised) and the Anti-Money Laundering Regulations (Revised). This STO is intended for international purchasers based worldwide, excluding persons with residence/nationality in any country where the purchase of cryptocurrencies is legally forbidden, such as, but not limited to, China, Algeria, Bolivia, Ecuador, Morocco and Pakistan, in addition to persons located in any of the jurisdictions blacklisted by the Organization for Economic Co-operation and Development and the United Nations.

Accuracy of information, no consent of parties referenced in Whitepaper

This Whitepaper includes technical, market and industry information and forecasts that have been obtained from internal surveys, reports and studies, where appropriate, as well as market and academic research, publicly available information and publications and industry publications. Such surveys, reports, studies, market research, publicly available information and publications generally state that the information that they contain has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of such included information. Save for the Issuer and its respective directors, executive officers and employees, no person has provided his or her consent to the inclusion of his or her name and/or other information attributed or perceived to be attributed to such person in connection therewith in the Whitepaper and no representation, warranty or undertaking is or purported to be provided as to the accuracy or completeness of such information extracted from third-party sources, verified the accuracy or completeness of such information settracted from third-party sources, verified the accuracy or completeness of such information relied upon therein. Consequently, the Issuer makes no representation or warranty as to the accuracy or completeness of such information and shall not be obliged to provide any updates on said information.

Terms used

To facilitate a better understanding of the Tokens being offered for purchase by the Issuer, and the businesses and operations of the Issuer, certain technical terms and abbreviations, as well as, in certain instances, their descriptions, have been used in the Whitepaper. These descriptions and assigned meanings should not be treated as being definitive of their meanings and may not correspond to standard industry meanings or usage. Words importing the singular shall, where applicable, include the plural and vice versa and words importing the masculine gender shall, where applicable, include the feminine and neuter genders and vice versa. References to persons shall include corporations.

No further information or update

No person has been or is authorized to give any information or representation not contained in the Whitepaper in connection with the Issuer and its business and operations or the Tokens and, if given, such information or representation must not be relied upon as having been authorized by or on behalf of the Issuer. The continuing sale of Tokens shall not, under any circumstances, constitute a continuing representation or create any suggestion or implication that there has been no change, or development reasonably likely to involve a material change in the affairs, conditions and prospects of Issuer or in any statement of fact or information contained in the Whitepaper since the date hereof. Statements made in the Whitepaper are based on the law and practice in the jurisdiction as of the current date it was issued. Those statements are therefore subject to change should that law or practice change. Under no circumstance does the delivery of the Whitepaper or the sale of Tokens imply or represent that the affairs of the Issuer have not changed since the date of the Whitepaper.

Know Your Customer and Anti-Money Laundering policies

Any applicants to the STO, either in a primary issuance or in the secondary market, will be subject to all applicable KYC/AML policies that may be in place at the time of the purchase, being subject to periodic assessment and routines in this regard. Failure to comply with the KYC/AML procedures and routines applicable to the purchase of Tokens shall prevent the purchase of the Tokens or the imposition of sanctions on purchasers, including the freeze of funds, mandatory cancellation or redemption of Tokens through our smart contract or any other measure that the Issuer may deem appropriate to meet the applicable regulatory requirements.

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" We, Step Oil, know where the oil is, it is just a matter of time to increase the production volume and secure these tremendous proven reserves.

Step Oil is a current operational company extracting crude oil from numerous wells with an average of 76,166 barrels of oil every month and sold in 2019 by year end for 54,840,000 USD.

This offering is not about an empty field where a company is engaged in the search for oil. Step Oil has 158,000,000 barrels of oil pinpointed in the fields under contract, which has been proven by a high-profile geological survey company, and the Kazakhstan government.

Step Oil knows where the oil is now it is just a matter of time to extract the oil and sell it. With this investment from this STO it provides the funds for aggressive further development, by drilling more wells for the extraction of the reserves. It is not a guess; it is a fact.

Step Oil has a highly seasoned team of experts in the oil extraction and marketing of crude oil on a global basis. This is not an Entrepreneurial Dream or a too good to be true investment. This STO is 100% accurate based on proven facts which all can be verified."

Andrey OZERNOV

Chairman of the Board of Directors and CEO

STEP OIL Company Ltd,





I. Our STO at a glance

Step Oil founded in 2016 - and formed company registered in the United Kingdom - conducted studies of the oil fields in the Republic of Kazakhstan and finally in 2017 with this expertise selected Tenge, Jupiter's Block 31 and Korolevskoe oil fields as the most attractive for private investments. In 2017, Step Oil completed the acquisition of UST Resources (100% owned by Step Oil). Step Oil retains the exclusive rights for the purchase and development of Korolevskoe oil fields.

Step Oil is now managing a final round of investments for the purchase of three selected oil fields. This strategical milestone will open an immediate access for the continued operation of oil production and exploitation of **158 Million barrels of resources** (proven categories P1 and P2) valued on September the 26th at **\$9.17 Billion USD**.

2020 will be dedicated for the completing of this investment and therefore for the development of its production from 284.000 barrels (2019) up to **2.456.000 barrels** (2024 plan).

I.1 Target assets

Those investments operations are managed through 3 separate segments: Tenge, Jupiter Block 31 and Korolevskoe.

	Tenge	Jupiter	Korolevskoe	Total Target Assets
Current production (2019)	525 000 barrels valued at 33.643.000 USD	284,000 barrels Q1+ Q2 2019 valued at 18.199.000 USD		
Production vision at 6 years	528,000 tons	335,000 tones	118,000 tons	981.000 tons
in barrels	3 874 000	2 456 000	866 000	7 196 000
Total revenue 2026	\$232 440 000	\$147 360 000	\$51 960 000	\$431 760 000
net profit	\$197 574 000	\$125 256 000	\$44 166 000	\$366 996 000
Proven reserve in barrels	87 MMbbl	62 MMbbl	7.8 MMbbl	157.8 MMbbl
				9.17 Bn USD\$
Proven Reserve Estimated in USD				Proven Reserve Estimated

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1.2 Benefits for the investors / token holders

Total	production in barrels	total revenue	net profit
2020	1 509 000	90 540 000 USD	76 959 000 USD
2021	2 344 000	140 640 000 USD	119 544 000 USD
2022	3 935 000	236 100 000 USD	200 685 000 USD
2023	5 015 000	300 900 000 USD	255 765 000 USD
2024	5 736 000	_ 344 160 000 USD_	_292 536 000 USD_

1.2.1 2020 – 2024 Total revenue - Net profit



A dividend pool of funds to be created from 30% of net profits with payments to holders of the tokens. The percentage of payments to holders is calculated as the total issued tokens and the tokens owned by each holder, the number of tokens held by individual owners divided by the total tokens issued equals the percentage of the net profits due to that holder.

- This STO is backed by significant assets and providing token holder with monthly dividends after 1 year.
- Upon the beginning of the second year of operations Step Oil intends to create a Pool of funds (POF) each month in the mount equal to 30 percent of the net profit.
- After 60 days of accumulated POF Step Oil will distribute the prior 30 days of accumulated POF and distribute a prorate share of the POF to Token holders.



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TABLE OF CONTENT

Disclai	mer	2
I. O	ur STO at a glance	5
I.1	Target assets	5
1.2	Benefits for the investors / tokenholders	6
1.2	2.1 2020 – 2024 Total revenue - Net profit	6
TABLE	OF CONTENT	7
II. O	VERVIEW	9
II.1	DEVELOPMENT	9
11.2	ROADMAP	10
III.	TOKENIZATION	11
III.1	Blockchain, tokens and STO	11
111	1.1.1 Purchase Structure - in practical terms, how does the STO work	
IV.	ISSUANCE	13
IV.1	Security Token Offering : introducing the <i>ENERGY</i> Token (ENG)	13
IV.2	Token Allocation Table	14
IV.3	Use of Funds	14
IV.4	Project summary	15
IV.5	Token sale summary	15
IV.6	Token summary	16
IV.7	Secondary Market	17
IV.8	TIME SCHEDULE	17
IV.9	TOKEN BENEFITS	17
V. E	STIMATED REVENUE	
V.1	Tenge revenue forcast	19
		19
V.2	Jupiter revenue forcast	20
		20
V.3	Korolevskoe revenue forcast	21
VI.	Our team and Arys Munay LLP, UST Resources	22
VII.	TARGET ASSETS - DESCRIPTION	24





VII.1	Tenge	24
VII.1.1	1 TENGE Production	24
VII.1.2	2 TENGE Reserve	24
VII.2 J	JUPITER	25
VII.3 J	Jupiter Production	26
VII.4 H	KOROLEVSKOE	27
VII.4.2	1 Korolevskoe plan	27
VIII. CO	NTACT	28
		28
VIII.1	APPENDIX	29



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II. OVERVIEW

Step Oil Company Ltd was founded in 2016 and is a duly formed company registered in the United Kingdom (London). Since Establishment Step Oil conducted comprehensive and thorough studies of the oil fields in the Republic of Kazakhstan and finally in 2017 with this expertise selected Tenge, Jupiter's Block 31 and Korolevskoe oil fields as the most attractive for private investments.

During this process involving a step by step process, managed by ARYS MUNAY LLP (100% daughter company of Step Oil Company Ltd), achieved agreements for the Subsoil hydrocarbon rights and the accompanying assets. The proven Oil Reserves within "Blocks 31" which includes Akkar East oilfields, Akkar North (East block), Zhetybai West, and the Tenge oil field with proven reserves totaling 158 million barrels of oil valued on September the 26th at \$9.17 Billion USD.

In 2017, Step Oil completed the acquisition of UST Resources (100% owned by Step Oil). Step Oil retains the exclusive rights for the purchase and development of Korolevskoe oil fields.

Step Oil is creating an exclusive process for investors to achieve an investment backed by the proven reserves of those oil fields.

II.1 **DEVELOPMENT**

Step Oil Company Ltd (UK), Arys Munay LLD (daughter company of Step oil), and UST Resources (100 % owned by Step Oil) are working together to create and optimize oil and gas backed assets, by developing secured partnerships.

Today Step Oil has unlocked all the doors leading to the exploitation of exceptional oil and gas fields with proven resources and is now ready to provide investors the opportunity to be part of the development.

Founded in 2016 as an oil production company, we have grown and completed profitable transactions with local partnerships to secure the conditions surrounding the exploitation of three main oil fields located in Kazakhstan. Three years of close and exclusive negotiations have been necessary to achieve an exclusive pre-transaction ownership of three of the most profitable and valuable Kazakhstan oilfields.

Signed agreements and geological surveys which secure the conditions leading to a valuable investment backed by 157 MMbbl (157 million of barrels) of oil valued, as of September 26, 2019 at 9.17 Billion USD\$.







- Step Oil (with Arys Munay and UST) completed agreements for the Subsoil hydrocarbon use rights, the accompanying assets, and retains the exclusive rights for the purchase and the development of 3 major oil fields.
- Step Oil has received reports of the proven oil and gas reserves provided by Kazakhstan State Commission and confirmed by an independent oil expertise company.
- Step Oil has secured pre-transactions agreements in an exclusive partnership with major oil exploitation firms (pipeline junctions) and with the Kazakhstan Administration.



II.2 ROADMAP







III.1 Blockchain, tokens and STO

Step Oil Company Ltd is the first energy company in the oil business to make use of blockchain technology for a STO raise, funded by a preferred stock offer utilizing Blockchain-based Security Token. A blockchain is a decentralized and immutable public database of transactions. The database is organized by connecting a chain of blocks together. Each block contains a group of transactions and the blocks are ordered chronologically and linked together, using cryptographic hashes. Large quantities of computational resources must be expended to create each block, and each one contains the previous block's hash. This is how they are chained.

One of the most widely used projects based on this technology is Ethereum, which uses a concept of virtual quasi-turing machine - called the EVM (Ethereum Virtual Machine) - and a high-level programing language - called Solidity - to facilitate the creation of smart contracts. As a security token offering or "STO" offers a token with the promise of a return (by way of profits, assets or both) as opposed to the promise of utility, purchasers of such tokens are better protected from project failure or fraud.



Our STO will be based on an audited smart contract generating the requisite tokens (ENG). Purchases will be made in crypto-assets ETH. Our **ENERGY** Token (ENG) will rely on the widely used Ethereum Network and the ERC20 standard protocol, the most established blockchain-based smart contract technology to date.





III.1.1 Purchase Structure - in practical terms, how does the STO work



1 After KYC/AML approvals, each Purchaser subscribes Tokens by entering into terms and conditions of purchase and delivering ETH. On the specified delivery date, the Issuer provides the Purchaser with Tokens;

2 The Issuer exchanges the cryptocurrencies received for fiat currency (i.e. Euro, Dollar, ..) and invests directly into Target Assets (target oil fields) via Arys Munay LLD (daughter company of Step Oil Company Ltd), and UST Resources (100 % owned by Step Oil Company Ltd) both registered in Kazakhstan.

3 The funds are deployed for the acquisition of the oil fields defined as Target Assets.

4 Step Oil Company Ltd manage the (Target) Assets at a profit via its subsidiaries Arys Munay LLD (daughter company of Step Oil Company Ltd), and UST Resources. Both operate the oil fields according to the production plan (see below)





IV. ISSUANCE

IV.1 Security Token Offering: introducing the ENERGY Token (ENG)

Step Oil Company, Ltd. will create the **ENERGY (ENG)** Token, a preferred stock offering represented by a blockchain-based token built on the Ethereum (ERC-20) platform.

The initial tokens (each representing a single preferred stock share) will be issued in a limited amount of 600 million token. The initial issue for this STO will be limited to 200 Million Tokens. 100 million Energy tokens will be reserved for Step Oil Company, Ltd. founders and previous investors. While previous investors will receive their tokens immediately (less than 20 million tokens total), all others, including founder tokens, will vest over a period of not less than five years, and founder/employee token holders will not be permitted to release more than 25 percent of their tokens in any one calendar year. Step Oil Company, Ltd. will reserve the right to reclaim tokens from employees fired for cause.

The first round is a pre-sale \$40 million for accredited investors, followed immediately by a second round of \$160 million.

This STO will be a fully compliant security, offered with the assumption that the tokens may increase in value and earn dividends on a monthly basis paid to investors. We intend to be in full compliance of any and all pertinent regulations, and we shall amend the terms of the STO as required by any securities trading regulations applicable to cryptocurrency transactions, now and in the future, as required by law.

The token used for Step Oil Ltd STO is named ENERGY (ENG)

After the completion of the first two rounds up to 200 Million Tokens, leaves a balance of 400 Million tokens that shall be released in structured amounts over a period of up to 5 years for the purpose of development of these oil fields in Kazakhstan (i.e. drilling programs for extraction).

Upon the completion of the first raise of 40 million Tokens, the second release of 160 million tokens shall be released.

Further releases shall be issued according to the financial activity of Step Oil Company Ltd.'s operations, with buy-backs conducted at appropriate moments in time to support the token market value. Step Oil Company, Ltd. and its board will make every good faith effort to ensure that additional tokens are released only when we have confidence that the new productions will raise the value of the existing tokens sufficiently to offset any potential dilution effects





IV.2 Token Allocation Table

DETAILS OF ALLOCATION OF TOKENS		STEP OIL
	Number of Tokens	Number of Tokens allocated (%)
Number of Tokens sold to private investors during Pre-Sale	40 million Tokens	20 %
Number of Tokens available for the second round	160 million Tokens	80 %
200 Million Tokens		100 %

IV.3 Use of Funds

Use of Funds	%	*	Allocation
Investment	55%		allocated for investment development, tech support, function and security enhancement
Advisers, Partners and Third Party Service Providers	15%		allocated for operations, administration, financial and legal consultancy
Marketing	5%		used for marketing campaign (pre & post STO), public relations events and community building activities
Development	8%		allocated to advisors for research and development, strategic planning, project support (whitepaper, website
Working Capital	17%		





IV.4 Project summary

After years of geological surveys, reports, and investment preparation, Step Oil, (in partnership with Arys Munay and UST Resources) has achieved its preliminary stages of development and completed agreements for the Subsoil hydrocarbon use rights, the accompanying assets, and retains the exclusive rights for the purchase and the development of 3 major oil fields. Step Oil has received reports of the proven oil and gas reserves provided by Kazakhstan State Commission and confirmed by an independent oil expertise company.

Step Oil has secured pre-transactions agreements in an exclusive partnership with major oil exploitation firms (pipeline junctions) and with the Kazakhstan Administration.

Step Oil is now managing a final round of investments for the purchase of those selected oil fields. This strategical milestone will open an immediate access for the continued operation of oil production and exploitation of 158 Million barrels of resources (proven categories P1 and P2).

IV.5 Token sale summary

The following is provided for summary purposes only and does not form a part of any agreement to the purchase of the Infinites Tokens.

Private Sale Period:	To be determine
Public Sale Period:	
Total supply of Tokens:	600 Million
Total Tokens for Sale	200 Million
Private Sale Round	40 Million
Public Sale Round	160 Million
Unsold Tokens	Reserved for future development
Minimum Purchase Amount	USD 5.000
Accepted payment methods	FIAT, Cryptocurrencies, bank transfers, credit cards
Declaration	STEP OIL Company Ltd has taken all reasonable care to
	ensure that the facts stated in this document are true
	and accurate in all material respects, and that there no other facts that the omission of which would make
	misleading any statement in the document, whether of
	facts or opinion. STEP OIL Company Ltd accepts
	responsibility accordingly.





IV.6 Token summary

Website	stepoilkaz.
Issuer	i.e. STEP OIL FIN Private Company Limited by shares
Issuel	Incorporated and registered in Singapore on DATE
	Company registration number: xxxxxxx Registered Office:
	xxxxx Singapore regulated company limited by shares, formed
T . I	for the purpose of issuing ENERGY tokens.
Token Name	ENERGY Token
Smart contract	
Ticker	ENG
Project summary	Step Oil is now managing a final round of investments for the purchase of those selected oil fields. This strategical milestone will open an immediate access for the continued operation of oil production and exploitation of 158 Million barrels of resources (proven categories P1 and P2)
Private Sale period	Date to date
Total supply of Tokens	600 Million
Private Sale Round	40 Million
Management Reserve	
Unsold Tokens	Reserved for future development
Minimum sale target (soft cap)	No soft cap
Maximum sale target (hard cap)	200 Million
Token Price	1 Energy Token = 1 US dollar
	1 US Dollar = 1 Energy Token

Accepted payment methods	
Countries not allowed for participation	To be determine, depending on the jurisdiction
Involvement in other Token Sales	STEP OIL has not issued any other tokens prior to this Whitepaper
Advisers, Partners and Third- Party Service Providers	The compensation arrangements for each of those parties are as follows: Strategy advisors: fiat currency payments based on work performed. Legal advisors: fiat currency payments based on work performed. Auditors: fiat currency payments based on work performed. Marketing Partners: fiat currency based on work performed. INF confirms that there is no affiliation, conflict of interest or related party transactions with its management team and directors





IV.7 Secondary Market

At the inception of the STO, no secondary market trading of the Tokens will be available. We intend to create a marketplace with strategic partners to provide Token holders with the ability to exchange their assets, thus potentially increasing liquidity.

IV.8 TIME SCHEDULE

2020 Q2: completion finalization of the current agreements with the sellers

2020 Q2 -Q3: establishment of STEP OIL administration and management for TENGE oil field

2020 Q3: thorough inspection of all other wells for rework purposes

2020 Q4: Aggressive and further development on the fields for the drilling of a minimum of 20 wells

IV.9 TOKEN BENEFITS

Tokens are issued with the assumption that they can be freely traded in compliance with all relevant currency and securities regulations, and that they may potentially increase in value over time.

Upon the beginning of the second year of operations Step Oil intends to create a Pool of funds (POF) each month in the mount equal to 30 percent of the net profit.

After 60 days of accumulated POF Step Oil will distribute the prior 30 days of accumulated POF and distribute a prorate share of the POF to Token holders. Token holders shall have the right to purchase additional tokens in subsequent releases before the general public. As outlined in the Private Placement Memorandum, token holders are protected in the event of a sale of the company, ensuring that investors shall receive the greater of \$1 or fair market value for each token held. The tokens will be honored at the present market value at the time of the transaction, regardless of the purchase price, and not less than the original issue price.

This STO is the first of its kind backed by significant assets and providing token holder with monthly dividends after 1 year. A dividend pool of funds to be created from 30% of net profits with payments to holders of the tokens. The percentage of payments to holders is calculated as the total issued tokens and the tokens owned by each holder, the number of tokens held by individual owners divided by the total tokens issued equals the percentage of the net profits due to that holder. Investors have a twofold possibility to earn funds from their investment

- a) an increase in the value of a tokens and;
- b) dividend payments from their investments,





All tokens shall be tradable, subject to relevant securities laws.

Tokens will be placed on as many exchanges as possible to ensure maximum value and tradability. Step Oil Company, Ltd. Will cooperate with all broker-dealers and platforms officially registered to trade tokens when investors are able to resell ENERGY tokens on the open market (one year after initial investment/purchase.

V. ESTIMATED REVENUE

Total	production in barrels	total revenue	net profit
2020	1 509 000	90 540 000 USD	76 959 000 USD
2021	2 344 000	140 640 000 USD	119 544 000 USD
2022	3 935 000	236 100 000 USD	200 685 000 USD
2023	5 015 000	300 900 000 USD	255 765 000 USD
2024	5 736 000	344 160 000 USD	292 536 000 USD
2025	3 644 000	218 640 000 USD	185 844 000 USD
2026	3 992 000	239 520 000 USD	203 592 000 USD







V.1 Tenge revenue forecast

Net Profit TENGE (plan)	production in barrels	Total revenue	net profit
2020	1 033 000	61 980 000 USD	52 683 000 USD
2021	1 720 000	103 200 000 USD	87 720 000 USD
2022	2 320 000	139 200 000 USD	118 320 000 USD
2023	2 755 000	165 300 000 USD	140 505 000 USD
2024	3 180 000	190 800 000 USD	162 180 000 USD
2025	3 530 000	211 800 000 USD	180 030 000 USD
2026	3 874 000	232 440 000 USD	197 574 000 USD







V.2 Jupiter revenue forecast

Net Profit Jupiter (plan)	production in barrels	total revenue	net profit
2020	463 000	27 780 000 USD	23 613 000 USD
2021	608 000	36 480 000 USD	31 008 000 USD
2022	1 573 000	94 380 000 USD	80 223 000 USD
2023	2 194 000	131 640 000 USD	111 894 000 USD
2024	2 456 000	147 360 000 USD	125 256 000 USD









V.3 Korolevskoe revenue forecast

Net Profit Korolevskoe (plan)	production in barrels	total revenue	net profit
2020	13 000	98 000 USD	83 300 USD
2021	16 000	120 000 USD	102 000 USD
2022	42 000	315 000 USD	267 750 USD
2023	66 000	487 000 USD	413 950 USD
2024	100 000	727 000 USD	617 950 USD
2025	114 000	840 000 USD	714 000 USD
2026	118 000	866 000 USD	736 100 USD







VI. Our team and Arys Munay LLP, UST Resources

Andrey OZERNOV

Chairman of the Board of Directors and CEO

STEP OIL Company Ltd,

Andrey Ozernov, CEO, Step Oil Ltd.

Graduated Kazakh Technical University, specialization in systems engineering.

International investor and businessman. Works with government - and privately held companies around the globe. Andrey's past experience, professional skills in negotiating, and the realization of new projects of any scope is highly qualified. He managed and successfully realized numerous infrastructure projects in Kazakhstan with a total volume of more than US\$ 500 Million (i.e. Atyrau oil refinery modernization project / EPC Turnkey Contract in the value of US\$ 235 Million), including feasibility study, engineering, procurement and construction.

Denis KIM

Chief Financial Officer, STEP OIL Company Ltd

Denis Kim, CEO, Arys Munay & UST Resources

Graduated Kazakh State University, specialization in mechanics and applied mathematics.

Denis is an experienced specialist in oil field development, oil and oil products, trading, and logistics. His experience in the oil industry exceeds 25 years. After several years as CFO of Atyrau oil refinery (daughter company of National oil & gas company KazMunayGas); and as well as chairman of the board of directors, of Kazakh-British JV "Trans Service" (Atyrau), Denis moved into the private sector of oil industry in Kazakhstan. As CEO of oil company "Turan Barlau" (oilfield exploration) and Chairman of the board of directors of oil company "Kok Mai" (oilfield exploration), he managed exploration of a total of seven oilfields in Kazakhstan. Thereafter, he became a member of the board and crisis manager of JSC "Chimkent Bulk Plant Petroleum Depot". Since 2013 - independent entrepreneur and investor of various Kazakh companies. Currently leads the teams of both Arys Munay and UST Resources.





Kuanysh MAKAZHANOV

Arys Munay LLP, Chief geologist

Graduated Kazakh Polytechnical University in Almaty, specialization in geology.

Has more than 40 years' experience in geology and oilfield exploration, was leading geologist in various state-owned enterprises, chief geologist in oil companies "Kor", "Turan Barlau" in Kazakhstan. Kuanysh has exceptional experience in the sectors of oilfield engineering and development.

Kuanysh is member of State Commission on Reserves for the Ministry of ecology, geology, and natural resources for the Republic of Kazakhstan.

Since 2017, chief geologist in Step Oil.

Bakhyt KONKASHEV

Arys Munay LLP, CFO

Graduated Kazakh State University in Almaty, specialization in economics and finance.

Proven experience in banking and oil sectors: head of corporate finance department of Alem Bank Kazakhstan, director of cash management departments of National Oil & Gas company KazMunayGas (ex "KazakhOil"), deputy general director of "Central Asia Oil". Bakhyt headed the development of such oilfields as «Mukhtar-Konyr-Akmechet», Ural-Volga, Koljan-Uyaly, Tenge in Kazakhstan and the Russian Federation





VII. TARGET ASSETS - DESCRIPTION

VII.1 Tenge



- Gas zones: 5 (XIII XVII)
- Oil and gas zones: 6 (XVIII XXIII)
- Oil and Gas Column: 700 m
- 3D seismic: 154 km2
- Previously drilled wells: 63 (1960s 80s)
- Newly drilled wells: 2 (nos.221, 249)
- Producing wells: 12, including (3 gas (XIII+XVII), 9 oil (XVIII, XXI, XXIII horizons).

VII.1.1 TENGE Production

Production (pla	in)		
2020	140,000 tons	1.0 MMbbl	1.033.000 barrels
2021	140,000 tons	1.7 MMbbl	1.720.000 barrels
2022	316,000 tons	2.3 MMbbl	2.320.000 barrels
2023	375,000 tons	2.7 MMbbl	2.755.000 barrels
2024	433,000 tons	3.1 MMbbl	3.180.000 barrels
2025	481,000 tons	3.5 MMbbl	3.530.000 barrels
2026	528,000 tons	3.8 MMbbl	3.874.000 barrels

VII.1.2 TENGE Reserve

TENG Reserves 88. 8 MMbbl Equivalent 11.6 million tons



- Discovery year 1964
- Oil production started 2000
- Gas Production started 1970
- Contract type: Production
- Permit issued in December 2006 and acquired by Jupiter in June 2008

Mangyshlak Basin, West Kazakhstan

- Block: Tenge
- Area: 154 km2
- Mining Allotment: up to the Base Triassic
- Producing Horizons: Middle Jurassic Clastics
- Depth: 1700 2400 m



VII.2 JUPITER

Block 31

- Total area of ~123km2
- 3D seismic data obtained over the entire block
- area: 235km

Akkar North (East Block) & East Akkar

- 5 wells at 1-2km apart
- All oil produced from the Triassic (T2B) horizon
- Sidetrack being considered for J-53 well
- T2A and Jurassic has shown in all wells, but the Company has not produced from intervals other than T2B;
- Appraisal well to be drilled in C2 reserves area before Final Reserves Report to be submitted for approval;
- Focus will then be on Full Field Development.

West Zhetybai

- 3 wells @ 4km apart
- Best performing well is within this area (J-58). Tested at 200 tons per day
- Sidetrack being considered for J-55 well

Drillings & Wells

- A total of 9 wells have been drilled since 2008.
- 1 more well will be drilled * before the end of 2019.
- 3 wells in trial production.
- 6 well on conservation or liquidated.









VII.3 Jupiter Production

In accordance with the project of trial production, each well can produce 50 tons / 345 barrels per day only (limited maximum). From 2020, after the starting of full value exploitation, production can be doubled.

2018 (maximum limited) : 12,000 tons / 90 Mbbl / 90,000 barrels 2019 (forecast after 4 months): 38,000 tons / 284 Mbbl / 284,000 barrels

Production (pla	n)		
2020	63,000 tons	463 Mbbl	463.000 barrels
2021	82,000 tons	608 Mbbl	608,000 barrels
2022	214,000 tons	1,5 MMbbl	1.573,000 barrels
2023	300,000 tons	2,2 MMbbl	2.194.000 barrels
2024	335,000 tons	2,4 MMbbl	2.456,000 barrels

note :

State Reserves Commission (GKZ) approved preliminary reserves in 2012 of 4.9 million tons / 37 million barrels of recoverable oil (C1 + C2 categories) for the Akkar North (East Block) and East Akkar fields

Preliminary State Reserves Report approved in June 2014 with C1+C2 reserves estimated at 3.6 million tons / 25 million barrels of recoverable oil for West Zhetybai Total Reserve of recoverable oil for Block 31 is 8.5 million tons/62 million barrels

There is a significant potential in increasing reserves on West Zhetybai with initial estimates estimating 7.3 million tons / 55 million barrels of reserves

JUPITER Block 31

62.0 MMbbl (P1+P2)

equivalent 8.5 Million tons





VII.4 KOROLEVSKOE

VII.4.1 Korolevskoe plan

Production (p	lan)		
2020	13,000 tons	98 Mbbl	98.000 barrels
2021	16,000 tons	120 Mbbl	120.000 barrels
2022	42,000 tons	315 Mbbl	315.000 barrels
2023	66,000 tons	487 Mbbl	487.000 barrels
2024	100,000 tons	727 Mbbl	727.000 barrels
2025	114,000 tons	840 Mbbl	840.000 barrels
2026	118,000 tons	866 Mbbl	866.000 barrels

KOROLEVSKOE

62.0 MMbbl (P1+P2)

equivalent 8.5 Million tons





VIII. CONTACT

Britannia House, 1 - 11 Glenthorne Road,

London,

United Kingdom,

W6 0LH

Registered Office address:

Company Number 10262939





Arys MUNAY LLP UST Resources LLP







VIII.1 APPENDIX

TENGE JV	
Competent Demonia Depart	
Competent Person's Report	
Tenge Field – Kazakhstan	
As of December 31, 2010	
Prepared For:	
T	
Tenge JV LLP	
Microdistrict 3/6	
Zhanaozen City, 130200	
Kazakhstan	
Razakiistaii	
Prepared By:	
McDaniel & Associates Consultants Ltd.	
2200, 255 - 5 th Avenue SW	
Calgary, Alberta	
T2P 3G6	
May 2011	
may 2011	
McDaniel	
X & Association France and Link	



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May 5, 2011

Tenge JV LLP Microdistrict 3/6 Zhanaozen City, 130200 Kazakhstan

Reference: Tenge JV LLP Competent Persons Report as of December 31, 2010

Attention: Mr. Daniyar Mukushev, General Director

Dear Sir:

1 INTRODUCTION

Pursuant to your request we have prepared an evaluation of the crude oil and natural gas reserves and the net present values of these reserves for the interests of Tenge JV LLP ("Tenge JV") in Jurassic Zones 18, 21, 22 and 23 of the Tenge Field in Western Kazakhstan, as of December 31, 2010.

The future net revenues and net present values presented in this report were calculated using forecast prices and costs using McDaniel & Associates opinion of future crude oil and natural gas prices at January 1, 2011 and were presented in United States dollars.

The reserves estimates and future net revenue forecasts have been prepared in accordance with the 2007 SPE/WPC/AAPG/SPEE Petroleum Resource Management System. The format and content of this report follows the guidance set out in the June 2009 Note for Mining and Oil & Gas Companies published by the London Stock Exchange.

Standard industry practice for reserves evaluations in a country that does not have a history of production contract extensions past the contract expiry date (such as Kazakhstan) is to only assign reserves that are forecast to be produced up to the contract expiry date. The reserves presented in this report are those produced to the end of the contract but those reserves expected to be produced to the end of the field life are also presented in separate tables for illustrative purposes.





Page 2 May 5, 2011

This evaluation was prepared during the period from March to May 2011 and was based on technical and financial data to the end of December 2010. Tenge JV has provided McDaniel & Associates with written representation to confirm the completeness and accuracy of the data provided and that no new data or information has been acquired between December 31, 2010 and the date of this report which might materially impact our opinions in this report.

2 CORPORATE SUMMARY

Tenge JV has an interest in the Tenge field in Kazakhstan as shown in Figure 1 below:



Figure 1 - Location Map for the Tenge Field in Kazakhstan

A summary of Tenge JV's ownership in the Tenge field is presented in Table 1 below.

Table 1 - Tenge JV Asset Summary

Oil & Gas Field	Country	Operating Company	Contract Type	Interest	Contract Expiry Date	Area (sq.km)
Tenge	Kezakhstan	Tenge JV	Production	100%	Sept 5, 2020	154







Tenge JV	Page 3
Competent Person's Report	May 5, 2011

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2.1 Reserves

Tenge JV's gross and net working interest share of the remaining crude oil and natural gas reserves, as of December 31, 2010 are presented in Table 2 below:

Table 2 - Tenge JV Crude Oil and Natural Gas Reserves Summary

Crude Oil and Natural Gas Reserves at December 31, 2010, Mbbl, MMcf (1)

Proved Prod.	Proved Undev.	Total Proved	Probable	Total Proved plus Probable	Total Possible	Proved plus Probable plus Possible
393	8,165	8,558	45,443	54,000	35,916	89,917
369	7,620	7,989	40,539	48,529	31,267	79,796
-	-	-	209,267	209,267	126,047	335, 313
-	-	-	188,340	188,340	113,442	301,782
393	8,165	8,558	80,320	88,878	56,924	145,802
369	7,620	7,989	71,929	79,919	50,174	130,093
	9rod. 313 369 - - 313	Prod. Undev. 393 8,165 369 7,620 393 8,165	Prod. Undex. Proved 393 8,165 8,558 369 7,620 7,989 - - - 393 8,165 8,558 399 7,620 7,989 - - - 393 8,165 8,558	Prod. Undex. Proved Probable 393 8,165 8,558 45,443 369 7,620 7,999 40,539 - - - 209,267 - - 188,340 393 8,165 8,558 80,320	Proved Prod. Proved Undex. Total Proved Probable Proved Probable Proved plus Probable 303 8,165 8,558 45,443 54,000 369 7,620 7,989 40,539 48,529 - - 209,267 209,267 - - 188,340 188,340 393 8,165 8,558 80,320 88,878	Proved Prod. Proved Undex. Total Proved Proved Probable Proved Probable Total Probable 393 8,165 8,558 45,443 54,000 35,916 369 7,820 7,989 40,539 48,529 31,267 - - 209,267 209,267 126,047 - - 188,340 113,442 393 8,165 8,558 80,320 88,878 56,924

(1) Reserves are estimated to the end of the current contract (September 5, 2020).

(2) Gross reserves include Tenge JV's 100 percent working interest reserves before deductions of royalty.
(3) Net reserves include gross reserves after deduction of royalty.
(4) Based on a conversion of 6 thousand cubic feet of natural gas equal to 1 berrel of oil equivalent.

2.2 Net Present Values of the Reserves

The net present values of the reserves were based on future production and revenue analyses. Tenge JV's share of the net present values of the reserves were based on forecast prices and costs as of December 31, 2010 are presented in Table 3 below:

Table 3 - Tenge JV Net Present Value Summary

Net Present Values at December 31, 2010 (1) (US\$1000)

	0%	5%	Discounted A	15%	20%
Before Income Taxes (2) (3)					
Proved Producing Reserves	14,384	12,132	10,432	9,119	8,084
Proved Undeveloped Reserves	174,804	125,761	90,510	64,745	45,630
Total Proved Reserves	189,188	137,893	100,943	73,865	53,724
Probable Reserves	2,054,289	1,505,937	1,123,342	850,304	651,505
Total Proved + Probable Reserves	2,243,457	1,643,831	1,224,284	924,169	705,229
Possible Reserves	1,789,182	1,306,476	971,573	733,989	562,061
Total Proved + Probable + Possible Reserves	4,032,639	2,950,306	2,195,857	1,658,158	1,267,280
After Income Taxes (2) (3)					
Proved Producing Reserves	13,844	11,673	10,035	8,769	7,771
Proved Undeveloped Reserves	122,530	83,972	56,596	36,852	22,426
Total Proved Reserves	138,374	95,645	66,630	45,621	30,196
Probable Reserves	1,252,495	899,356	654,424	480,834	355,437
Total Proved + Probable Reserves	1,388,868	995,002	721,054	526,455	385,633
Possible Reserves	1,048,917	760,670	560,400	418,244	315,393
Total Proved + Probable + Possible Reserves	2,437,785	1,755,671	1,281,454	944,699	701,026

McDaniel

(1) Net present values are estimated to the end of the current contract (September 5, 2020).

The net present values may not necessarily represent the fair market value of the reserves.
The value of all wells and facilities are included in the net present value estimates



Tenge JV Competent Person's Report

Page 4 May 5, 2011

3 PROPERTY OVERVIEW

The Tenge field is located in the Mangistau region of Western Kazakhstan approximately 150 kilometers east of the city of Aktau as shown in Figure 1. The field is a large four way dip closed anticline structure measuring approximately twenty by three kilometers and is positioned immediately to the south of the large Uzen field.

The Tenge field was discovered in 1964 and has been developed as a gas field from five Jurassic intervals (zones 13 to 17) with production starting in 1970. Gas production from these intervals reached a maximum of 220 MMcfpd in 1974 before declining rapidly and for the last 10 years the field has produced less than 10 MMcfpd. The production is used to supply gas to the Uzen field and the local town of Zhanaozen, but the current economics are understood to be marginal. These shallow gas reservoirs were not included as part of this evaluation.

Below the depleted gas zones there are a number of additional Jurassic intervals which, unlike the shallower zones, also have oil bearing intervals in the form of oil rims. (The term oil rim is used in this report to denote an oil zone that is overlain by a gas cap and underlain by a water leg.) These intervals, which are located at depths below 1,600 meters subsea ("m ss"), are referred to as Zones 18, 21, 22 and 23 and are largely undeveloped and are the focus of this report.

The field has approximately 60 wells drilled to date. Nearly all the wells were drilled during the 1960's and 1970's. The wells that intersected the deeper oil bearing zones were often tested immediately after drilling with typical rates in the range of 10 to 300 bopd. The oil is light (36° API) and waxy which is typical of the area. The composition of the gas within the gas caps is predominantly methane (butane and heavier components amount to less than 1 mol percent) and does not contain hydrogen sulphide.

Whilst the original intention was probably to leave the deeper zones until the oil intervals could be properly exploited, there were five gas wells that were re-completed on the deeper gas caps. The most significant gas production was from zones 22 and 23 where four wells produced a total of 90 Bcf between 1972 and 1980 (approximately 30 percent of the original gas in place). As production from two of the re-completed wells was commingled with production from the shallower intervals (zones 14, 15 and 16), the production allocation is uncertain. It is not clear what the impact of this production has been on the associated oil intervals.

Since 2000 approximately seven of the old gas wells have been recompleted on the oil rims with somewhat mixed results. Only five wells have managed to sustain production and of the 890,000 bbl of oil produced to date 86 percent of this comes from two wells (TE-6 and TE-52) which are both producing within 200 meters of each other from the oil rim on zone 18. Initially these two wells each produced at rates over 200 bopd. Current production is around 260 bopd from the four producing wells. Oil from TE-6 and TE-52 is gathered at a small group station where the gas is separated and flared. The other wells, TE-2 and TE-58 both produce to a tank alongside each well which is open to the atmosphere to allow any gas to be vented. All the produced liquids are then trucked to the nearby Uzen processing facility (CPF) owned by





Tenge JV Competent Person's Report

Page 5 May 5, 2011

KazMunaiGas. Here any water is removed and the oil is treated to the specifications required by the KazTransOil operated pipeline which is linked to the main Atyrau-Samara system.

Whilst it was originally hoped that the deeper reservoirs could be developed at relatively low cost using the old gas wells it now appears, due to the state of these very old wells and the difficulty in re-completing wells to date, that new wells will be required to properly develop the field. In 2002 a new well was drilled (TE-235) to target the oil interval in zone 23, however, the results were somewhat disappointing. The resistivity measurements across the section where the oil should be present are very low suggesting either very low or no hydrocarbon saturation. The resistivity measurements across the section where the oil should be present are very low suggesting either very low or no hydrocarbon saturation. The resistivity measurements across the section where the oil should be present are very low suggesting either very low or no hydrocarbon saturation. Operations at the well were suspended due, in part, to a change in ownership of the field. There is some concern that the earlier gas production on zones 22 and 23 may have affected the oil rim causing it to partly migrate into the gas cap. Due to this risk no oil reserves for an oil rim development in zones 22 and 23 have been assigned as part of this evaluation.

In February 2008 drilling of a new well, TE-467, close to wells TE-6 and TE-52 was started. Unfortunately, after a number of months the drilling had to be stopped prior to reaching the reservoir section due to problems with the rig and the drilling contractor. Tenge JV has plans to drill a number of new vertical wells around the field area to gather some much needed up to date data, particularly on the state of the oil bearing intervals in zones 22 and 23, the current reservoir pressures and to help improve the geological model. Tenge is also planning to drill some horizontal wells as ultimately the development of the oil rims will require the drilling of horizontal wells to minimize the risk of coning gas and/or water.

The exact development plans will depend on the results of further study work that Tenge JV intends to undertake. Through further integration of the existing subsurface well data and 3D seismic data (which shows some indications of channel like features) it is hoped to better understand the geometry of the reservoir and to characterize the channel systems.

Gas reserves have been assigned as part of this evaluation as the field is close to gas export pipelines and the gas market in Western Kazakhstan is to some degree established. Proved gas reserves have not been assigned as there is no gas contract in place for the gas in zones 18 to 23.

Further exploration potential may exist in the Triassic which lies below the existing Jurassic hydrocarbon bearing reservoirs. The Triassic represents a secondary target within the Mangyshlak area and five old wells in Tenge were drilled deep enough to encounter potential pay sections. Three of these wells (TE-51, TE-55, TE-58) are reported to have tested small amounts of oil, but they did not support flow to surface. The Triassic potential was not included as part of this evaluation.







Page 6 May 5, 2011

4 OWNERSHIP AND CONTRACT TERMS

The licensing and contractual arrangements for the field are complex due to changes in the State sub-surface laws, a number of ownership changes and some legal disputes all of which have occurred since an original Tenge Joint Enterprise foundation agreement was signed in 1993 between MangistauMunaiGas (then fully owned by the State) and Anglo-Dutch a US company. Tenge JV has informed us that all the historical contractual and legal issues are currently resolved and that Tenge JV holds a 100 percent working interest in the Tenge Joint Enterprise.

The terms of the original sub-soil use license covering the field were revised in 2009 and the field is now required to pay taxes in line with the current Kazakh tax code. These include mineral extraction tax, export rent tax, property tax, corporation tax, excess profits tax and some other minor taxes. The sub-soil use license covering the field was registered on September 1, 1995 for a period of 25 years and is set to expire on September 5, 2020. There is a provision within the contract for a possible extension of between 5 and 15 years. The Ministry of Energy and Mineral Resources has written to Tenge JV outlining that any extension would need to be negotiated in 2018 two years before the current expiry.

The existing contract allows for the full development of all the hydrocarbon zones including zones 18, 21, 22 and 23. A technological scheme was originally approved for the field in 1997. In 2008 a revised technological scheme was approved based on drilling vertical and horizontal wells and providing pressure support through water injection.

A summary of the economic terms are presented in Table 10 of the Appendix.

5 RESERVES DEFINITIONS

The definitions employed in this evaluation conform to the 2007 Petroleum Resource Management System jointly published by the Society of Petroleum Engineers ("SPE"), World Petroleum Council ("WPC"), American Association of Petroleum Geology ("AAPG") and the Society of Petroleum Evaluation Engineers ("SPEE").

5.1 Resources

The term "resources" is intended to encompass all quantities of petroleum naturally occurring on or within the Earth's crust, discovered and undiscovered (recoverable and unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum whether currently considered "conventional" or "unconventional."

The resources classification framework is summarized in Figure 2 and a summary of the definitions are given below.







Tenge JV Competent Person's Report Page 7 May 5, 2011



Figure 2 – Resource Classification Framework

The "Range of Uncertainty" reflects a range of estimated quantities potentially recoverable from an accumulation by a project, while the vertical axis represents the "Chance of Commerciality", that is, the chance that the project that will be developed and reach commercial producing status.

The quantities estimated to be initially-in-place are defined as Total Petroleum-initially-in-place, Discovered Petroleum-initially-in-place and Undiscovered Petroleum-initially-in-place, and the recoverable portions are defined separately as Reserves, Contingent Resources, and Prospective Resources. Reserves constitute a subset of resources, being those quantities that are discovered (i.e. in known accumulations), recoverable, commercial and remaining.





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Page 8 May 5, 2011

Reserves

Reserves those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.

The reserve classification system is covered in Section 5.3.

Contingent Resources

Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by their economic status.

Prospective Resources

Prospective Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

5.2 Range of Uncertainty

The range of uncertainty of the recoverable and/or potentially recoverable volumes may be represented by either deterministic scenarios or by a probability distribution. When the range of uncertainty is represented by a probability distribution, a low, best, and high estimate shall be provided such that:

There should be at least a 90 percent probability (P90) that the quantities actually recovered will equal or exceed the low estimate.

There should be at least a 50 percent probability (P50) that the quantities actually recovered will equal or exceed the best estimate.







Tenge JV Competent Person's Report

Page 9 May 5, 2011

There should be at least a 10 percent probability (P10) that the quantities actually recovered will equal or exceed the high estimate.

When using the deterministic scenario method, typically there should also be low, best, and high estimates, where such estimates are based on qualitative assessments of relative uncertainty using consistent interpretation guidelines. Under the deterministic incremental (risk-based) approach, quantities at each level of uncertainty are estimated discretely and separately.

These same approaches to describing uncertainty may be applied to Reserves, Contingent Resources, and Prospective Resources. While there may be significant risk that sub-commercial and undiscovered accumulations will not achieve commercial production, it is useful to consider the range of potentially recoverable quantities independently of such a risk or consideration of the resource class to which the quantities will be assigned.

5.3 Reserves Categories and Status

For Reserves, the general cumulative terms low/best/high estimates are denoted as 1P/2P/3P, respectively. The associated incremental quantities are termed Proved, Probable and Possible. Reserves are a subset of, and must be viewed within context of, the complete resources classification system.

Proved Reserves

Proved Reserves are those quantities of petroleum which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimate.

Probable Reserves

Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50 percent probability that the actual quantities recovered will equal or exceed the 2P estimate.

Possible Reserves

Possible Reserves are those additional Reserves which analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus





Reserves status categories define the development and producing status of wells and reservoirs.

Developed Reserves

Developed Reserves are expected quantities to be recovered from existing wells and facilities. Reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor compared to the cost of a well. Where required facilities become unavailable, it may be necessary to reclassify Developed Reserves as Undeveloped. Developed Reserves may be further sub-classified as Producing or Non-Producing.

Developed Producing Reserves

Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate. Improved recovery reserves are considered producing only after the improved recovery project is in operation.

Developed Non-producing Reserves

Developed Non-Producing Reserves include shut-in and behind-pipe Reserves. Shut-in Reserves are expected to be recovered from (1) completion intervals which are open at the time of the estimate but which have not yet started producing, (2) wells which were shut-in for market conditions or pipeline connections, or, (3) wells not capable of production for mechanical reasons. Behind-pipe Reserves are expected to be recovered from zones in existing wells, which will require additional completion work or future re-completion prior to start of production.

Undeveloped Reserves

Undeveloped Reserves are expected quantities expected to be recovered through future investments: (1) from new wells on undrilled acreage, (2) from deepening existing wells to a different (but known) reservoir, (3) from infill wells that will increase recovery, or (4) where a relatively large expenditure (e.g. when compared to the cost of drilling a new well) is required to (a) recomplete an existing well or (b) install production or transportation facilities for primary or improved recovery projects.

5.4 Contingent Resource Categories

For Contingent Resources, the general cumulative terms low/best/high estimates are denoted as 1C/2C/3C respectively. No specific terms are defined for incremental quantities within Contingent Resources.







Tenge JV Competent Person's Report Page 11 May 5, 2011

5.5 Prospective Resource Categories

For Prospective Resources, the general cumulative terms low/best/high estimates apply. No specific terms are defined for incremental quantities within Prospective Resources.

6 SOURCE AND QUALITY OF DATA

All of the basic information employed in the preparation of this report was obtained from Tenge JV. McDaniel & Associates personnel visited Tenge JV's office in Almaty and Zhanaozen, Kazahstan to gather all available technical data and to review geological interpretations with Tenge JV's technical staff.

The data set comprised seismic data, original well data, production data, contractual data and financial data on operating costs, capital costs and crude oil pricing. The 3D seismic acquired in 2002 together with several seismic interpretation reports was provided. Well log data for forty wells that penetrated below zone 18 were provided in digital format. This log data typically comprises gamma ray, spontaneous potential, resistivity and a neutron porosity log. In addition two wells have a sonic log. The logs themselves provide insufficient data to reliably estimate porosity and water saturation and are mainly used as a net sand indicator. However, well TE-235 drilled in 2002 does have a complete set of modern logs.

A Moscow based institute, Central Geophysical Expedition ("CGE") has carried out a full reservoir modeling and petroleum engineering study of the field over the last two years including seismic interpretation, reservoir geocellular modeling and reservoir simulation. The top surfaces for the reservoir horizons generated as part of this study were used as the top structure maps for this evaluation.

A number of other reports were also provided including the 1967, 1968, and 2008 State Reserves Calculations, the 1997 and 2008 Technological Development Schemes and various reports by local institutes and Western consultants.

The data was generally of fair quality, albeit quite old, but generally consistent with the type and quality of information usually available in Kazakhstan.

7 REGIONAL GEOLOGY - SOUTH MANGYSHLAK BASIN

The South Mangyshlak Basin is located entirely within Kazakhstan immediately to the east of the Caspian Sea. The basin is bounded by the Mangyshlak fold-belt to the north and northeast and to the south by the Karabogaz arch where only thin Cretaceous and Tertiary rocks overlie the basement. The western boundary of the South Mangyshlak basin is not clearly defined extending into the central part of the Caspian Sea where its dimensions are unknown. The basin first formed when rifting during late Permian and Triassic times formed grabens which were subsequently filled with a thick sequence of clastic, carbonate and volcanic sediments. Compression and inversion of the area then provided the structures to form the hydrocarbon traps.





Tenge JV Competent Person's Report Page 16 May 5, 2011

9 RESERVES ESTIMATES

The crude oil and natural gas reserves were primarily based on volumetric estimates considering all available data including test data, production data, structural and net pay interpretations, amount and quality of data and economics of development. A number of reservoir simulation studies have been conducted in the past to evaluate the likely recovery that could be obtained from a Tenge field oil rim development. In 2008 Epic Consulting Services Ltd of Calgary undertook a sector modeling study on behalf of McDaniel & Associates to investigate the sensitivity of oil recovery to well spacing and production rate within the oil rims of zones 18b and 18c. These studies combined with analogue data have been used to estimate the ranges of recovery factors used in this evaluation. The reserves were classified into Proved Developed Producing ("PDP"), Proved Undeveloped ("PUD"), Total Proved ("1P"), Proved plus Probable ("2P") and Proved plus Probable plus Possible ("3P") classes as defined in Section 5 of this report. In this evaluation the PUD is the difference between the 1P and PDP.

Gas reserves have been assigned as part of this evaluation as the field is close to gas export pipelines and the gas market in Western Kazakhstan is to some degree established. Proved gas reserves have not been assigned as there is no gas sales contract in place for the zones being evaluated.

For the analysis of reserves, each zone was categorized according to the type of development that would be applicable given the reservoir and fluid characteristics. Zone 18a only has a 12 meter gross oil column, underlain by water and overlain by gas, which is likely too thin for a viable oil rim development. Well tests all show high GORs and fairly low oil rates so it was assumed that zone 18a will be developed as a gas reservoir using vertical wells and that the oil recovery would be very low.

Zones 18b and 18c both have a 31 meter gross oil column, underlain by water and overlain by gas, and development of the oil rims should be viable if horizontal wells are employed. Due to the geometry of these sands, 500 to 1,000 meter horizontal wells could be oriented in a radial direction allowing them to target both intervals in a single well. At the eastern and western ends of the field the horizontal distances between zones appears to be too large to develop both intervals in the same well thus some additional wells will be required. In total it is estimated that 32 horizontal wells will be required to develop the 18b and 18c oil rims.

Zone 21 is divided into an eastern and western part. The western part does not appear to have a gas cap, but is low relief and thin and the development of only a portion of the area is likely to be viable. The eastern part should give better recovery as it is thicker with a gross oil column of up to 51 meters although it does have a small gas cap.

Zones 22 and 23 both initially had oil rims although it is not clear if the gas production (estimated to be 90 Bcf) that has already occurred from these two intervals has negatively impacted the potential recovery from the oil rims. The limited data available suggests the rim on zone 23 may no longer be intact; well TE-235 did not encounter high oil saturations when drilled in what should have been a rim location and well TE-109 tested water while swabbing in 1997 from what should





have been an oil rim location. It may be that there are explanations for the results of these two wells which still allow for an oil rim to be present, however, it was forecast in this evaluation that the future development would focus on the blowdown of the gas caps and that any oil recovery would be very low.

The concept for the reservoirs with a viable oil development (18b, 18c, 21 East and 21 West) was to first develop the oil, re-injecting any produced gas, followed in all cases (except zone 21 West) by a gas cap blowdown. For the reservoirs where it was felt that an oil development was not viable (18a, 22a, 22b and 23) it was assumed that the gas would be developed immediately.

Crude Oil Reserves

A very small quantity of proved producing oil reserves (393 Mbbl) were assigned on the basis of production analysis of the existing four wells, three of which produce from zone 18b and the other which produces from zone 21.

Proved undeveloped oil reserves were only assigned to zones 18b and 18c assuming that roughly half their reservoir area is proved. A development using 16 horizontal wells and 2 new vertical wells was estimated to give a 10 percent recovery for 50 percent of the mapped in place volume.

The 2P oil reserves for zones 18b and 18c assume a development of the full mapped area using 32 horizontal wells and 2 new vertical wells. These producers are assumed to be supported by 10 gas cap injectors (vertical) and 10 water leg injectors (horizontal) giving a recovery factor of 25 percent. The 3P oil reserves are based on the same numbers of wells but with a 25 percent increase in the oil in place and a 30 percent recovery factor.

The 2P oil reserves for zone 21 East are based on a development of the thickest net pay areas, which is assumed to be 50 percent of the oil in place, requiring five producers (horizontal), 2 gas injectors (vertical) and 2 water injectors (vertical) giving a recovery factor of 20 percent. The 3P oil reserves assume the full oil in place can be developed using double the number of wells resulting in a 25 percent recovery factor.

The 2P oil reserves for zone 21 West assume 25 percent of the oil-in-place is developed using 2 new producers (vertical) giving a recovery factor of 15 percent. The 3P oil reserves assume 9 new producers are required to develop the full mapped area with a resulting 20 percent recovery factor.

For the reservoirs where a gas blowdown is assumed to occur immediately a small amount of oil reserves were assigned to the 2P and 3P cases. For interval 18a a 2P and 3P recovery factor of 4 and 10 percent respectively were assumed. For zones 22 and 23 a 2P and 3P recovery factor of 2 and 5 percent respectively were assumed reflecting the fact that the oil rim may not be present in some areas of the field.



Tenge JV Competent Person's Report

Solution Gas Reserves

Solution gas will be recovered during the blowdown phases of each reservoir development. For the oil rim developments the solution gas will be re-injected until the blowdown phase commences. The solution gas recovery factors were estimated to vary between the oil recovery factors and the gas cap gas recovery factors. No proved gas reserves were assigned as there currently are no gas sales contracts in place. A shrinkage factor of 10 percent was applied to convert the raw gas volumes to sales gas volumes.

Page 18 May 5, 2011

Gas Cap Gas Reserves

Gas cap gas will be recovered during the blowdown phases of each reservoir development. No proved gas reserves were assigned as there currently are no gas sales contracts in place. The gas cap gas recovery factors are expected to be in line with typical depletion drive gas recovery factors. Reservoirs in the Mangyshlak area do not typically have strong aquifer support and so the recoveries should be relatively high. For calculating 2P reserves a recovery factor of 70 percent was applied to the mapped gas cap gas in place. For calculating 3P reserves a recovery factor of 80 percent was applied to 125 percent of the mapped gas cap gas in place. A shrinkage factor of 10 percent was applied to convert the raw gas volumes to sales gas volumes.

Where possible, wells that were used for gas injection during the oil rim development phase will later be converted to gas producers during the blowdown phase. The 2P case assumes 38 gas producers will be required with 10 coming from the conversion of injectors and 28 new wells. The 3P case assumes 38 gas producers will be required with 12 coming from the conversion of injectors and **26** new wells.

Summaries of the oil, solution gas and gas cap gas reserves by zone are presented in Tables 6, 7 and 8 respectively of the Appendix. These reserves are based on the full life of the field and are prior to the application of the contract expiry cut-off in September 5, 2020. Reservoir and fluid properties are summarized in Table 9 of the Appendix.

Standard industry practice for reserves evaluations in a country that does not have a history of production contract extensions past the contract expiry date (such as Kazakhstan) is to only assign reserves that are forecast to be produced up to the contract expiry date. Those reserves to the end of the contract are presented on a property gross, company gross and company net basis in Table 4.



PDP PUD 1P Probable 2P Possible 3P Crude Oil, Mbbl 393 35,916 89,917 Property Gross 8,165 8,558 45.443 54,000 393 8,165 8,558 45,443 54,000 35,916 89,917 Company Gross (2) Company Net (3) 360 7,620 7,989 40,539 48,529 31,267 79,796 Natural Gas, MMcf 209,267 209,267 126,047 335,313 Property Gross 209,267 209,267 126,047 335,313 Company Gross (2)

8,558

8,558

7,969

188,340

80,320

80,320

71,929

188,340

88,878

88,878

79,919

113,442

56,924

56,924

50,174

Table 4 - Reserves to End of Contract, September 5, 2020

301,782

145,802

145.802

130,093

7,620 Reserves at March 31, 2011 are estimated to the end of the current contract (September 5, 2020).

393

393

369

(2)Gross reserves include Tenge JV's 100 percent working interest reserves before deductions of royalty

8,165

8,165

Net reserves include gross reserves after deduction of royally. Based on a conversion of 6 thousand cubic feet of natural gas equal to 1 barrel of oil equivalent. 2

Tenge believes that it will be possible to negotiate a contract extension past 2020 to allow all the oil and gas to be recovered. The reserves expected to be produced to the end of the field life are also presented in Table 5 for illustrative purposes.

	PDP	PUD	1P	Probable	2P	Possible	3P
Crude Oil, Mbbl (1)							
Property Gross	393	8,217	8,610	49,808	58,418	47,781	106,199
Company Gross (2)	393	8,217	8,610	49,808	58,418	47,781	106,199
Company Net (3)	369	7,689	8,038	44,537	52,575	41,985	94,580
Natural Gas, MMcf (1)							
Property Gross	-	-	-	545,501	545,501	292,776	838,277
Company Gross (2)	-	-	-	545,501	545,501	292,778	838,277
Company Net (3)	-	-	-	490,951	490,951	263,498	754,449
Barrels of Oil Equiv.(4)							
Property Gross	393	8,217	8,610	140,725	149,335	96,577	245,912
Company Gross (2)	393	8,217	8,610	140,725	149,335	96,577	245,912
Company Net (3)	369	7,669	8,038	126,363	134,400	85,901	220,302

盟

Reserves at March 31, 2011 are estimated to the end of the field life Gross reserves include Tenge JV's 100 percent working interest reserves before deductions of royalty.

Net reserves include gross reserves after deduction of royalty. Based on a conversion of 6 thousand cubic feet of natural gas equal to 1 berrel of oil equivalent. 2

10 PRICE FORECASTS

Company Net (3)

Property Gross

Barrels of Oil Equiv. (4)

Company Gross (2) Company Net (3)

The net present value estimates were based on the McDaniel & Associates December 31, 2010 price forecast. The crude oil export price is based on the forecast Brent crude oil price less an estimate of the price differential between the Brent reference price and the field price. This differential includes the cost of crude processing, transporting the crude from the field to the point of sale and all other related commercial costs to market the oil. Based on the oil sales information for 2010 the total price differential has averaged \$18.50/bbl during the year and this has been used





for forecasting oil price. There are specific clauses within the Tenge sub-soil contract that allow for 100 percent crude oil export. Tenge JV is currently exporting all the oil it produces and 100 percent future export has been assumed.

Natural gas prices are based on the published gas prices paid by Gazprom in the region. These have been indirectly linked to European gas prices which in turn track the Brent crude oil price to allow for future price changes.

A summary of the reference crude oil and natural gas price forecasts are presented in Table 11 of the Appendix.

11 NET PRESENT VALUES

The net present values of the crude oil and natural gas reserves were based on future production and revenue analyses. Estimates are provided both to the current contract expiry date of September 5, 2020 (Table 6) and for illustrative purposes to the end of the field life (Table 7). All of the net present value estimates presented in this report were presented in US dollars and include an allowance for Kazakhstan taxes.

The future production forecasts were based on detailed calculations including allowances for future drilling or recompletions. Tenge JV believes it will be possible to have a maximum of six rigs working in the Tenge field each drilling up to eight vertical or five horizontal wells per year. In 2011 it is planned to drill four vertical wells to appraise the zone 18b, 18c and 21 oil rims. Three of these vertical wells will later be replaced by horizontal wells at which point they will be converted to gas producers on zone 18a. Whilst facilities are being constructed any associated gas produced will be supplied free of charge to the Kazakh Gas Processing Plant (subsidiary of UzenMunaiGaz).

Future crude oil revenue was derived by employing the forecast production and the forecast crude oil price discussed in Section 10. An allowance for customs export duty (re-introduced at the beginning of 2011), mineral extraction and export rent taxes and income taxes were made according to the terms of the contract. Current unit operating costs are very high because of the very low production levels. Future operating costs are based on our experience with analogous oil and gas projects. Drilling costs are based on budget estimates provided by Tenge JV which indicates a vertical well will cost \$3.4 million and a horizontal well will cost \$5.5 million. Tenge JV provided some preliminary facility cost estimates from two local design institutes for a small scale production facility which were used to benchmark our estimates of the likely facility costs. An allowance was also made for well abandonment costs at the end of each respective forecast.

Table 1 of the Appendix presents a summary of the reserves and net present values to the end of the contract. Tables 2 to 5 of the Appendix present the revenue forecasts to the end of the contract for each reserves category. For illustrative purposes only, the same information to the end of the field life is presented in Tables 13 to 17 of the Appendix. (The small amount of associated gas produced whilst facilities are being built is excluded from the reserves presented in these tables as no revenue is derived).





Tenge JV	Page 21
Competent Person's Report	May 5, 2011

Table 10 of the Appendix provides a summary of the economic parameters and Table 12 of the Appendix provides a breakdown of the capital costs.

Table 6 - Net Present Values to End of Contract, September 5, 202

	Net Present Values at December 31, 2010 (1) (US\$1000)						
	Discounted At						
	0%	5%	10%	15%	20%		
Before Income Taxes (2) (3)							
Proved Producing Reserves	14,384	12,132	10,432	9,119	8,084		
Proved Undeveloped Reserves	174,804	125,761	90,510	64,745	45,630		
Total Proved Reserves	189,188	137,893	100,943	73,865	53,724		
Probable Reserves	2,054,289	1,505,937	1,123,342	850,304	651,505		
Total Proved + Probable Reserves	2,243,457	1,643,831	1,224,284	924,169	705,229		
Possible Reserves	1,789,182	1,306,476	971,573	733,989	562,061		
Total Proved + Probable + Possible Reserves	4,032,639	2,950,306	2,195,857	1,658,158	1,267,280		
After Income Taxes (2) (3)							
Proved Producing Reserves	13,844	11,673	10,035	8,769	7,771		
Proved Undeveloped Reserves	122,530	83,972	56,598	38,852	22,426		
Total Proved Reserves	136,374	95,645	66,630	45,621	30,196		
Probable Reserves	1,252,495	899,356	654,424	480,834	355,437		
Total Proved + Probable Reserves	1,388,868	995,002	721,054	528,455	385,633		
Possible Reserves	1,048,917	760,670	560,400	418,244	315,393		
Total Proved + Probable + Possible Reserves	2,437,785	1,755,671	1,281,454	944,699	701,026		

Net present values are estimated to the end of the current contract (September 5, 2020).
The net present values may not necessarily represent the fair market value of the reserves.
The value of all wells and facilities are included in the net present value estimates

Table 7 - Net Present Values to End of Field Life - Presented for Illustrative Purposes Only

	Net Present Values at December 31, 2010 (1) (US\$1000)							
	Discounted At							
	0%	5%	10%	15%	20%			
Before Income Taxes (2) (3)								
Proved Producing Reserves	14,384	12,132	10,432	9,119	8,084			
Proved Undeveloped Reserves	175,674	126,309	90,862	64,978	45,793			
Total Proved Reserves	190,058	138,441	101,294	74,095	53,878			
Probable Reserves	3,958,104	2,414,494	1,586,099	1,099,452	792,141			
Total Proved + Probable Reserves	4, 148, 163	2,552,935	1,687,394	1,173,547	846,018			
Possible Reserves	3,084,586	1,980,115	1,339,360	943,199	685,314			
Total Proved + Probable + Possible Reserves	7,232,729	4,533,050	3,026,754	2,116,746	1,531,332			
After Income Taxes (2) (3)								
Proved Producing Reserves	13,844	11,673	10.035	8,769	7,771			
Proved Undeveloped Reserves	123,148	84,361	56,846	37,016	22,535			
Total Proved Reserves	136,991	96,034	66,880	45,785	30,306			
Probable Reserves	2,098,719	1,318,998	876.054	604,181	427,158			
Total Proved + Probable Reserves	2,235,710	1,415,032	942,934	649,966	457,482			
Possible Reserves	1,779,980	1,146,909	773,558	540,367	387,677			
Total Proved + Probable + Possible Reserves	4,015,690	2,561,941	1,716,492	1,190,333	845,139			

Net present values are estimated to the end of the field life.
The net present values may not necessarily represent the fair market value of the reserves.
The value of all wells and facilities are included in the net present value estimates





Competent Descents Descent	
Competent Person's Report	

Page 22 May 5, 2011

12 PROFESSIONAL QUALIFICATIONS

McDaniel & Associates Consultants Ltd. has over 50 years of experience in the evaluation of oil and gas properties. McDaniel& Associates Consultants Ltd. is registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA). All of the professionals involved in the preparation of this report have in excess of 5 years of experience in the evaluation of oil and gas properties. Mr. Bryan Emslie, Senior Vice President, Mr. Paul Taylor, Senior Petroleum Engineer and Mr. Anatoli Tchernavskikh, Manager International Geology, all with McDaniel & Associates Consultants Ltd., were responsible for the preparation of this report. Mr. Emslie has over 30 years of experience in the evaluation of oil and gas properties, Mr. Taylor have over 20 years of experience and Mr. Anatoli Tchernavskikh has in excess of 19 years. All of the persons involved in the preparation of this report and McDaniel & Associates Consultants Ltd. are independent of Tenge JV.

In preparing this report, we relied upon factual information including ownership, technical well and seismic data, contracts, and other relevant data supplied by Tenge JV. The extent and character of all factual information supplied were relied upon by us in preparing this report and has been accepted as represented without independent verification. We have relied upon representations made by Tenge JV as to the completeness and accuracy of the data provided and that all data proved to us was lawfully acquired.

This report was prepared by McDaniel & Associates Consultants Ltd. for the exclusive use of Tenge JV. Tenge JV agrees not to use the report in securities transactions without the prior written consent of McDaniel & Associates Consultants Ltd., which McDaniel & Associates Consultants Ltd. shall not unreasonably withhold. We reserve the right to revise any opinions provided herein if any relevant data existing prior to preparation of this report was not made available or if any data provided is found to be erroneous.

Sincerely,

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