

**NOSTRUM OIL & GAS PLC**

**Estimated**

**Future Reserves and Income**

**Attributable to the Terms of the Production**

**Sharing Agreement and Subsoil Use Contracts**

**Between The Republic of Kazakhstan**

**and Zhaikmunai LLP**

**Unescalated Parameters**

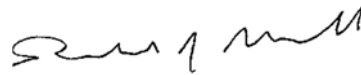
**As of**

**January 1, 2020**



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**RYDER SCOTT COMPANY, L.P.**  
TBPE Firm Registration No. F-1580



**RYDER SCOTT COMPANY**  
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March 20, 2020

The Directors  
Nostrum Oil & Gas PLC  
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Ladies and Gentlemen:

At the request of Nostrum Oil & Gas PLC (Nostrum), Ryder Scott Company, L.P (Ryder Scott) has prepared an estimate of the proved, probable and 2P hydrocarbon reserves, future production and income attributable to certain interests derived through certain Production Sharing Agreements (PSA) and Subsoil Use Contracts for four license areas between the Republic of Kazakhstan and Zhaikmunai LLP (Zhaikmunai) as of January 1, 2020. In addition, we have prepared an estimate of the 2C contingent resource volumes in the License areas owned and operated. The reserves and contingent resource volumes included herein were estimated based on the definitions and disclosure guidelines contained in the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG), and Society of Petroleum Evaluation Engineers (SPEE) Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA), and European Association of Geoscientists & Engineers (EAGE) 2018 Petroleum Resources Management System (SPE-PRMS), which were revised in June 2018. The reserves volumes were estimated based on unescalated price and cost parameters (SPE-PRMS constant case), provided by Nostrum. The income data for the reserves volumes were estimated using future price and cost parameters as noted herein and held constant throughout the life of the properties (SPE-PRMS constant case). The contingent resources presented herein were not projected or economically evaluated. The results of our third party study, completed on March 20, 2020 are presented herein.

The principal producing asset of Nostrum Oil & Gas is the Chinarevskoye field, in which it holds a 100 percent interest and is the operator, through its wholly-owned subsidiary Zhaikmunai LLP. In addition, Nostrum Oil & Gas holds a 100 percent interest in and is the operator, through its wholly-owned subsidiary Zhaikmunai LLP, of the Daryinskoye, Yuzhno-Gremyachenskoye and Rostoshinskoye oil and gas fields. Located in the pre-Caspian basin to the north-west of Uralsk, these exploration and development fields are approximately 60 and 120 kilometers respectively from the Chinarevskoye field.

The properties evaluated by Ryder Scott represent 100 percent of the total net proved and probable liquid hydrocarbon reserves and 100 percent of the total net proved and probable gas reserves of Nostrum as of January 1, 2020. This estimate also represents 100 percent of the total liquid hydrocarbon 2C contingent resource volumes and 100 percent of the total gas 2C contingent resource volumes of Nostrum as of January 1, 2020.

Zhaikmunai holds an interest in certain oil and gas properties in the Chinarevskoye license area located in the Republic of Kazakhstan. Zhaikmunai entered into both a License and Production Sharing Agreement (PSA) with the Republic of Kazakhstan in May 1997 and in October 1997, respectively. The PSA sets out the parameters for the exploration and development of the field and the fees, basis for

production sharing, and the taxes payable to the Republic of Kazakhstan.

Zhaikmunai holds an interest in certain oil and gas properties recently acquired licenses, the Rostoshinskoye, Yuzhno-Gremyachinskoye and Daryinskoye fields, located in the Republic of Kazakhstan. The combined field areas are known as the Trident Project (Trident). Zhaikmunai entered into both a License and Production Sharing Agreement (PSA) with the Republic of Kazakhstan in March 2013. The PSA sets out the parameters for the exploration and development of the field and the fees, basis for production sharing, and the taxes payable to the Republic of Kazakhstan.

Nostrum does not have a firm commitment or commercially viable project within a reasonable time frame currently planned for Trident. Therefore, Nostrum has deemed that the Trident previously classified Probable reserves should now be classified as Contingent Resources. Nostrum intends to carry out relevant appraisal activity on the two licenses along with Yuzhno-Gremyachenskoye and further decisions will be based on those results.

The estimated reserves presented in this report as of January 1, 2020, are related to hydrocarbon prices based on unescalated price parameters. As a result of both economic and political forces, there is substantial uncertainty regarding the forecasting of future hydrocarbon prices. Consequently, actual future prices may vary considerably from the prices assumed in this report. The recoverable reserves volumes and the income attributable thereto have a direct relationship to the hydrocarbon prices actually received; therefore, volumes of reserves actually recovered and amounts of income actually received may differ significantly from the estimated quantities presented in this report. The results of this study are summarized below:

**Unescalated Parameters  
 Zhaikmunai LLP**

Estimated Future Reserves and Income Derived  
 Through the Terms of the Production Sharing Agreements  
 Between the Republic of Kazakhstan and Zhaikmunai LLP

**Chinarevskoye License Area  
 As of January 1, 2020**

	Proved Reserves			
	Developed			Total
	Producing	Non-Producing	Undeveloped	Proved
<b><u>Net Reserves</u></b>				
Oil/Condensate – Barrels	11,821,995	621,859	3,073,720	15,517,574
Plant Products – Barrels	6,663,663	484,910	1,277,549	8,426,122
Gas – MMCF	128,855	8,896	19,942	157,693
<b><u>Income Data (\$M)</u></b>				
Future Gross Revenue	\$1,168,383	\$71,118	\$255,555	\$1,495,056
Deductions	<u>388,881</u>	<u>25,539</u>	<u>113,895</u>	<u>528,315</u>
Future Net Income (FNI)	\$ 779,502	\$45,579	\$141,660	\$ 966,741
Discounted FNI @ 10%	\$ 540,154	\$27,441	\$ 73,438	\$ 641,033

**Unescalated Parameters  
 Zhaikmunai LLP**

Estimated Future Reserves and Income Derived  
 Through the Terms of the Production Sharing Agreements  
 Between the Republic of Kazakhstan and Zhaikmunai LLP

**Chinarevskoye License Area**

As of January 1, 2020

	Probable Reserves		
	Developed Non-Producing	Undeveloped	Total Probable
<b><u>Net Reserves</u></b>			
Oil/Condensate – Barrels	591,674	25,235,605	25,827,279
Plant Products – Barrels	551,595	11,744,463	12,296,058
Gas – MMCF	11,283	230,447	241,730
<b><u>Income Data (\$M)</u></b>			
Future Gross Revenue	\$77,960	\$2,306,920	\$2,384,880
Deductions	<u>26,176</u>	<u>968,633</u>	<u>994,809</u>
Future Net Income (FNI)	\$51,784	\$1,338,287	\$1,390,071
Discounted FNI @ 10%	\$29,168	\$ 642,258	\$ 671,426

**Unescalated Parameters  
 Zhaikmunai LLP**

Estimated Future Reserves and Income Derived  
 Through the Terms of the Production Sharing Agreements  
 Between the Republic of Kazakhstan and Zhaikmunai LLP

**Chinarevskoye License Area**

As of January 1, 2020

	Proved + Probable (2P) Reserves		
	Developed		Total Proved + Probable
	Producing	Non-Producing	
<b><u>Net Reserves</u></b>			
Oil/Condensate – Barrels	11,821,995	1,213,533	28,309,325
Plant Products – Barrels	6,663,663	1,036,505	13,022,012
Gas – MMCF	128,855	20,179	250,389
<b><u>Income Data (\$M)</u></b>			
Future Gross Revenue	\$1,168,383	\$149,078	\$2,562,475
Deductions	<u>388,881</u>	<u>51,715</u>	<u>1,082,528</u>
Future Net Income (FNI)	\$ 779,502	\$ 97,363	\$1,479,947
Discounted FNI @ 10%	\$ 540,154	\$ 56,609	\$ 715,696
			\$1,312,459

Liquid hydrocarbons are expressed in standard 42 U.S. gallon barrels. All gas volumes are reported on an “as sold” basis expressed in millions of cubic feet (MMCF) at the official temperature and pressure bases of the areas in which the gas reserves are located. The contingent resource volumes

are also shown later in this report on an equivalent unit basis wherein natural gas is converted to oil equivalent using a factor of 6,000 cubic feet of natural gas per one barrel of oil equivalent. BOE means barrels of oil equivalent. In this report, the revenues, deductions, and income data are expressed as thousands of U.S. dollars (\$M).

The future gross revenue is after the deduction of royalties due to the Republic of Kazakhstan under the Chinarevskoye Production Sharing Agreement. The deductions comprise the normal direct costs of operating the wells, recompletion costs, drilling and completion costs, gas processing plant fees, oil, condensate and plant products (LPG) transportation fees, other infrastructure costs, and abandonment costs. The future net income is before the deduction of income taxes by the Republic of Kazakhstan and general administrative overhead, and has not been adjusted for outstanding loans that may exist nor does it include any adjustment for cash on hand or undistributed income.

Liquid hydrocarbon reserves account for approximately 71 percent of the total future gross revenue from proved reserves and gas reserves account for the remaining 29 percent of total future gross revenue from the proved reserves reported herein. Liquid hydrocarbon reserves account for approximately 72 percent of the total future gross revenue from probable reserves and gas reserves account for the remaining 28 percent of total future gross revenue from the probable reserves reported herein.

The discounted future net income shown above was calculated using a discount rate of 10 percent per annum compounded monthly. Future net income was discounted at four other discount rates which were also compounded monthly. These results are shown in summary form as follows:

<b>Unescalated Parameters</b> <b>Zhaikmunai LLP</b> Discounted Future Net Income (\$M) As of January 1, 2020			
Discount Rate Percent	Total Proved	Total Probable	Total Proved + Probable
12	\$597,004	\$583,777	\$1,180,781
15	\$539,844	\$474,823	\$1,014,667
20	\$463,315	\$339,259	\$ 802,574
25	\$404,237	\$244,644	\$ 648,881

The results shown above are presented for your information and should not be construed as our estimate of fair market value.

The following tables present the gross reserves of the Chinarevskoye license area before the terms of the production sharing agreement terms as of January 1, 2020 through the end of the license term.

**Chinarevskoye License Area**

Estimated Gross Reserves

As of January 1, 2020

	Proved			
	Developed			Total
	Producing	Non-Producing	Undeveloped	Proved
Oil/Condensate – Barrels	12,044,488	626,846	3,080,209	15,751,543
Plant Products – Barrels	6,772,009	487,689	1,279,685	8,539,383
Gas – MMCF (after shrink)	130,905	8,932	19,970	159,807

**Chinarevskoye License Area**

Estimated Gross Reserves

As of January 1, 2020

	Probable			
	Developed		Undeveloped	Total Probable
	Producing	Non-Producing		
Oil/Condensate – Barrels	0	596,510	25,327,462	25,923,972
Plant Products – Barrels	0	555,504	11,788,401	12,343,905
Gas – MMCF (after shrink)	0	11,363	231,358	242,721

**Chinarevskoye License Area**

Estimated Gross Reserves

As of January 1, 2020

	Proved + Probable (2P)			
	Developed		Undeveloped	Total Proved + Probable
	Producing	Non-Producing		
Oil/Condensate – Barrels	12,044,488	1,223,356	28,407,671	41,675,515
Plant Products – Barrels	6,772,009	1,043,193	13,068,086	20,883,288
Gas – MMCF (after shrink)	130.905	20.295	251.328	402.528

***Reserves and Resources Included in This Report***

The proved and probable reserves and 2C contingent resources included herein conform to the definitions of reserves and contingent resources sponsored and approved by the SPE, WPC, AAPG, SPEE, SEG, SPWLA and EAGE as set forth in the 2018 SPE-PRMS and where applicable, based on unescalated price and constant cost parameters (SPE-PRMS constant case). The estimated quantities of reserves presented in this report, based on unescalated price and constant cost parameters (SPE-PRMS constant case). Abridged versions of the SPE-PRMS reserves and contingent resources terms and definitions used herein are included as attachments to this report and entitled “PETROLEUM RESERVES and RESOURCES CLASSIFICATIONS and DEFINITIONS.”

The various reserves and contingent resources development and production status categories are defined in the attachment to this report entitled “PETROLEUM RESERVES AND RESOURCES STATUS DEFINITIONS AND GUIDELINES.” The developed proved and probable non-producing reserves included herein consist of the shut-in and behind pipe status categories.

No attempt was made to quantify or otherwise account for any accumulated gas production imbalances that may exist. The gas volumes presented herein do not include volumes of gas consumed in operations as reserves or contingent resources.

### ***Reserves and Resources Classification***

Recoverable petroleum resources may be classified according to the SPE-PRMS into one of three principal resource classifications: prospective resources, contingent resources, or reserves. The distinction between prospective and contingent resources depends on whether or not there exists one or more wells and other data indicating the potential for moveable hydrocarbons (e.g. the discovery status). Discovered petroleum resources may be classified as either contingent resources or as reserves depending on the chance that if a project is implemented it will reach commercial producing status (e.g. chance of commerciality -  $P_c$ ). The distinction between various “classifications” of resources and reserves relates to their discovery status and increasing chance of commerciality. Commerciality is not solely determined based on the economic status of a project which refers to the situation where the income from an operation exceeds the expenses involved in, or attributable to, that operation. Conditions addressed in the determination of commerciality also include technological, economic, legal, environmental, social, and governmental factors. While economic factors are generally related to costs and product prices, the underlying influences include, but are not limited to, market conditions, transportation and processing infrastructure, fiscal terms and taxes. At Nostrum’s request, this report addresses only the reserves and contingent resources attributable to the properties evaluated herein and not the prospective resources (if any).

Certain estimated recoverable volumes have been classified as contingent resources in this report due to one or more contingencies. These contingencies are related to indefinite development plans, remaining volumes beyond current license terms, geologic uncertainty, the lack of adequate seismic to interpret the reservoir area, drilling to determine reservoir properties, production tests of sufficient time to determine commerciality and reserve potential.

### ***Reserves and Resources Uncertainty***

All reserves and resources estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. Estimates will generally be revised only as additional geologic or engineering data becomes available or as economic conditions change. Discussions of reserves and contingent resources are presented below with general descriptions of the risks and uncertainties related to each of these resources classifications.

### ***Reserves***

Reserves are “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.” The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved.

Proved oil and gas 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.”

Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. Probable reserves are “those additional reserves that 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.” For probable 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” (cumulative 2P volumes). Possible reserves are “those additional reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than probable reserves.” For possible reserves, the “total quantities ultimately recovered from the project have a low probability to exceed the sum of the proved plus probable plus possible reserves” (cumulative 3P volumes).

The reserves included herein were estimated using deterministic methods and presented as incremental quantities. Under the deterministic incremental approach, discrete quantities of reserves are estimated and assigned separately as proved, probable or possible based on their individual level of uncertainty. Cumulative 2P reserves are also presented in this report.

Estimates of reserves may increase or decrease as a result of future operations, effects of regulation by governmental agencies or geopolitical risks. As a result, the estimates of oil and gas reserves have an intrinsic uncertainty. The reserves included in this report are therefore estimates only and should not be construed as being exact quantities. They may or may not be actually recovered, and if recovered, the revenues therefrom and the actual costs related thereto could be more or less than the estimated amounts.

### ***Contingent Resources***

Contingent resources are “those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable due to one or more contingencies.” The contingent resources included herein were estimated using deterministic incremental approach methods and presented as cumulative 2C quantities.

There may be a significant risk that accumulations containing contingent resources will not achieve commercial production. Moreover, estimates of resources may increase or decrease as a result of future operations, effects of regulation by governmental agencies or geopolitical risks. As a result, the estimates of oil and gas resources have an intrinsic uncertainty. The contingent resources included in this report are therefore estimates only and should not be construed as being exact quantities. They may or may not be actually recovered, and if recovered, could be more or less than the estimated amounts.

### ***Reserves and Resources Derived Through Certain Production Sharing Contracts***

The reserves reported herein are limited to the period prior to expiration of current contracts providing the legal right to produce or a revenue interest in such production unless there is a reasonable



expectation that an extension, a renewal or a new contract will be granted. The contingent resources reported herein may be subject to a contract providing the legal right to produce or a revenue interest in such production which is subject to negotiations. Recoverable hydrocarbon volumes are classified as contingent resources when such negotiations have yet to establish that there is a reasonable expectation that a new contract or contract renewal will be granted. A reasonable expectation is noted as representing a high degree of confidence that an extension, a renewal or new contract will be granted.

Furthermore, properties in different countries may be subjected to substantially varying contractual fiscal terms that affect the net revenue to Nostrum for the production of these volumes. The prices and economic return received for these net volumes can vary materially based on the terms of these contracts. Therefore, when applicable, Ryder Scott reviewed the fiscal terms of such existing or proposed contracts and discussed with Nostrum the net economic benefit attributed to such operations for the determination of the net hydrocarbon volumes and income thereof. Ryder Scott has not conducted an exhaustive audit or verification of such contractual information. Neither our review of such contractual information or our acceptance of Nostrum's representations regarding such contractual information should be construed as a legal opinion on this matter.

### ***Possible Effects of Regulation***

Ryder Scott did not evaluate country and geopolitical risks in the country where Nostrum operates or has interests. Nostrum's operations may be subject to various levels of governmental controls and regulations. These controls and regulations may include matters relating to land tenure and leasing, the legal rights to produce hydrocarbons including the granting, extension or termination of production sharing contracts, the fiscal terms or various production sharing contracts, drilling and production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax, and foreign trade and investment and are subject to change from time to time. Such changes in governmental regulations and policies may cause volumes of reserves and contingent resources actually recovered and amounts of income actually received to differ significantly from the estimated quantities.

The estimates of reserves and contingent resources presented herein were based upon a detailed study of the properties in which Nostrum derives an interest; however, we have not made any field examination of the properties. No consideration was given in this report to potential environmental liabilities that may exist nor were any costs included for potential liability to restore and clean up damages, if any, caused by past operating practices.

### ***Methodology Employed for Estimates of Reserves and Resources***

The estimation of reserves and resources quantities involves two distinct determinations. The first determination results in the estimation of the quantities of recoverable oil and gas and the second determination results in the estimation of the uncertainty associated with those estimated quantities. The process of estimating the quantities of recoverable oil and gas reserves and resources relies on the use of certain generally accepted analytical procedures. These analytical procedures fall into three broad categories or methods: (1) performance-based methods, (2) volumetric-based methods and (3) analogy. These methods may be used individually or in combination by the reserves evaluator in the process of estimating the quantities of reserves and/or resources. Reserves evaluators must select the method or combination of methods which in their professional judgment is most appropriate given the nature and amount of reliable geoscience and engineering data available at the time of the estimate, the established or anticipated performance characteristics of the reservoir being evaluated, and the stage of development or producing maturity of the property.

In many cases, the analysis of the available geoscience and engineering data and the subsequent interpretation of this data may indicate a range of possible outcomes in an estimate, irrespective of the method selected by the evaluator. When a range in the quantity of recoverable hydrocarbons is identified, the evaluator must determine the uncertainty associated with the incremental quantities of those recoverable hydrocarbons. If the quantities are estimated using the deterministic incremental approach, the uncertainty for each discrete incremental quantity is addressed by the reserves or resources category assigned by the evaluator. Therefore, it is the categorization of incremental recoverable quantities that addresses the inherent uncertainty in the estimated quantities reported.

Estimates of reserve and resource quantities and their associated categories or classifications may be revised in the future as additional geoscience or engineering data become available. Furthermore, estimates of the recoverable quantities and their associated categories or classifications may also be revised due to other factors such as changes in economic conditions, results of future operations, effects of regulation by governmental agencies or geopolitical or economic risks as previously noted herein.

The reserves and contingent resources for the properties included herein were estimated by performance methods, the volumetric method, analogy, or a combination of methods. In general, reserves attributable to producing wells and/or reservoirs were estimated by performance methods or a combination of methods. These performance methods include, but may not be limited to, decline curve analysis, material balance and/or reservoir simulation which utilized extrapolations of historical production and pressure data available through December 2019 in those cases where such data were considered to be definitive. The data used in this analysis were furnished to Ryder Scott by Nostrum and were considered sufficient for the purpose thereof. In certain cases, producing reserves were estimated by the volumetric method, analogy, or a combination of methods. These methods were used where there were inadequate historical performance data to establish a definitive trend and where the use of production performance data as a basis for the estimates was considered to be inappropriate.

Reserves and contingent resources attributable to non-producing and undeveloped categories included herein were estimated by the volumetric method, analogy, or a combination of methods. The volumetric analysis utilized pertinent well and seismic data furnished to Ryder Scott by Nostrum. The data utilized from the analogues as well as well and seismic data incorporated into our volumetric analysis were considered sufficient for the purpose thereof.

### ***Assumptions and Data Considered for Estimates of Reserves and Resources***

To estimate recoverable oil and gas reserves and related future net cash flows, we consider many factors and assumptions including, but not limited to, the use of reservoir parameters derived from geological, geophysical and engineering data which cannot be measured directly, economic criteria based on the cost and price assumptions as noted herein, and forecasts of future production rates. Under the SPE-PRMS Section 1.1.0.6, “reserves are 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.”

Nostrum has informed us that they have furnished us all of the material accounts, records, geological and engineering data, and reports and other data required for this investigation. In preparing our forecasts of future production and income, we have relied upon data furnished by Nostrum with respect to property interests derived, production and well tests from examined wells, normal direct costs of operating the wells or leases, other costs such as transportation and/or processing fees, recompletion and development costs, abandonment costs after salvage, product prices, geological structural and isochore maps, well logs, core analyses, and pressure measurements. Ryder Scott reviewed such

factual data for its reasonableness; however, we have not conducted an independent verification of the data supplied by Nostrum.

In summary, we consider the assumptions, data, methods and analytical procedures used in this report appropriate for the purpose hereof, and we have used all such methods and procedures that we consider necessary and appropriate to prepare the estimates of reserves and contingent resources herein.

### ***Future Production Rates***

For wells currently on production, our forecasts of future production rates are based on historical performance data. If no production decline trend has been established, future production rates were held constant, or adjusted for the effects of curtailment where appropriate, until a decline in ability to produce was anticipated. An estimated rate of decline was then applied to depletion of the reserves. If a decline trend has been established, this trend was used as the basis for estimating future production rates.

Test data and other related information were used to estimate the anticipated initial production rates for those wells or locations that are not currently producing. For reserves not yet on production, sales were estimated to commence at an anticipated date furnished by Nostrum. Wells or locations that are not currently producing may start producing earlier or later than anticipated in our estimates due to unforeseen factors causing a change in the timing to initiate production. Such factors may include delays due to weather, the availability of rigs, the sequence of drilling, completing and/or recompleting wells and/or constraints set by regulatory bodies.

The future production rates from wells currently on production or wells or locations that are not currently producing may be more or less than estimated because of changes including, but not limited to, reservoir performance, operating conditions related to surface facilities, compression and artificial lift, pipeline capacity and/or operating conditions, producing market demand and/or allowables or other constraints set by regulatory bodies.

### ***Hydrocarbon Prices***

Nostrum provided us with the future hydrocarbon price parameters to be used in this report. Estimates of future price parameters have been revised in the past because of changes in governmental policies, changes in hydrocarbon supply and demand, and variations in general economic conditions. The price parameters used in this report may be revised in the future for similar reasons.

As of January 1, 2020, the initial price for natural gas is \$2.83/Mcf for 2020 and held constant thereafter. The weighted average initial price for natural gas liquids (NGL) is \$32.44/bbl for 2020 and held constant thereafter. The weighted average initial price for condensate is \$59.92/bbl for 2020 and held constant thereafter. The weighted average initial oil price is \$53.03/bbl for 2020 and held constant thereafter. The weighted average prices are based on the hydrocarbon reference prices for the domestic and export markets for the various production streams and the percentage of production or sales volumes sold in the domestic or export markets.

Product prices which were actually used for each property reflect adjustments for gravity, quality, local conditions, gathering and gas transportation fees and/or distance from market, referred to herein as "differentials." The differentials used in the preparation of this report were furnished to us by Nostrum.

The effects of derivative instruments designated as price hedges of oil and gas quantities are not

reflected in Nostrum's individual property evaluations.

While it may reasonably be anticipated that the future prices received for the sale of production and the operating costs and other costs relating to such production may also increase or decrease from existing levels, such changes were omitted from consideration in making this evaluation.

## **Costs**

Operating costs for the leases and wells in this report were furnished by Nostrum and are based on the operating expense reports of Nostrum and include only those costs directly applicable to the leases or wells. Operating costs were on both a fixed and variable basis and in our opinion represent the expected costs as future production varies.

General and administrative costs of Zhaikmunai LLP include only those costs directly applicable to the leases and wells in this report and were provided by Nostrum.

Transportation costs for oil, condensate and LPG ("plant products" or "LPG") were supplied by Nostrum.

No deduction was made for loan repayments, interest expenses, or exploration and development prepayments that were not charged directly to the leases or wells.

Development costs were furnished to us by Nostrum and are based on authorizations for expenditure for the proposed work or actual costs for similar projects. The costs for infrastructure development were based on current estimates and/or the actual costs of similar projects. Development costs include costs associated with well drilling and completion, gas and oil pipeline construction, other infrastructure costs, costs for oil treatment facilities, gas processing plant, LPG terminal, LPG trucks for transportation, costs for camp construction, water injection and power generation, as well as facility and well abandonment costs. The development cost also includes commissioning, management costs, insurances and contingencies. The estimated net cost of abandonment was included for properties where abandonment costs were material. The estimates of the net abandonment costs furnished by Nostrum were accepted without independent verification.

Because of the direct relationship between volumes of undeveloped reserves and development plans, we include in the undeveloped reserves category only those volumes assigned to undeveloped locations that we have been assured will definitely be drilled and reserves assigned to the undeveloped portions of secondary or tertiary projects which we have been assured will definitely be developed. In accordance with SPE-PRMS guidelines, "a reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While 5 years is recommended as a benchmark, a longer time frame could be applied where, for example, development of an economic project is deferred at the option of the producer for, among other things, market-related reasons, or to meet contractual or strategic objectives." Nostrum has assured us of their intent, commitment, and ability to proceed with the development activities included in this report and that they are not aware of any legal, regulatory, or political obstacles that would significantly alter their plans. Furthermore, Nostrum has also assured us that for the evaluated properties, any development initiated beyond "a reasonable time frame" is in accordance with the above mentioned guidelines.

Current costs used by Nostrum were held constant throughout the life of the properties.

## **Contingent Resources**

### **Chinarevskoye License Area Contingent Resources as of January 1, 2020**

In addition to the estimated 2P reserves, 2C contingent resources have been identified in the Chinarevskoye License.

The contingent resources can be divided into two main groups:

- 1) Contingent resources which can be mapped – but which are not considered in the drilling program of the business plan, mainly due to the low oil price scenario or pending license extension.
- 2) Contingent resources which cannot be mapped – remaining volumes beyond current license term. These resources were calculated as the difference of the final projected recoverable volumes and the expected cumulative production at the end of current license term.

#### Group 1:

- Tournaisian South –Tournaisian T1gas, T1 oil and T2 horizons – Hydrocarbon (HC) bearing proved by test in well #23
- Tournaisian North (pool well #33) - Tournaisian T1gas, T1 oil, T2 and T3 horizons – HC bearing proved by test and production from well #33
- Ardatovski South, North East and North West
- Mullinski North East and South
- Bashkirian areas well # 52 and well #45
- Vorobyovski North

#### Group 2:

- Biski-Afoninski North East
- Tournaisian North East
- Frasnian North

Based on the results of the deterministic calculations, the contingent resources amount to 184.8 million barrels of oil equivalent.

The 2C contingent resources estimated as of January 1, 2020 amount to 62.1 million barrels of oil/condensate, 32.1 million barrels of plant products and 543.9 billion cubic feet of sales gas. A breakdown of the contingent resources is provided in the Table 1 that follows.

**Table 1 - Contingent 2C Resources in the Chinarevskoye License Area as of January 1, 2020**

Reservoir	Oil/Condensate, Bbls	Plant products, Bbls	Sales Gas, MMcf	TOTAL BOE using 6:1 conversion by RSC
Tournaisian, South (gas)	8,305,340	4,211,870	94,767	28,311,723
Tournaisian, South (oil)	5,223,599	513,822	5,842	6,711,101
Tournaisian, Well 33	2,826,846	1,668,138	18,967	7,656,067
Tournaisian, North East	5,295,860	1,144,716	13,015	8,609,786
Biyski/Afoninski, North East	7,829,162	1,264,337	25,861	13,403,741
Ardatovski, South	4,230,163	3,337,348	104,724	25,021,457
Ardatovski, North East	2,159,226	938,911	29,462	8,008,535
Ardatovski, North West	472,504	382,577	12,005	2,855,916
Mullinski, North East	7,559,095	7,122,142	76,631	27,453,011
Mullinski, South	8,875,702	7,272,435	78,248	29,189,423
Mullinski, North	1,542,603	904,107	9,372	4,008,685
Frasnian, North	37,289	329,961	3,690	982,310
Bashkirian, East	1,571,316	294,305	1,588	2,130,285
Bashkirian, West	3,386,582	558,076	3,011	4,446,525
Vorobyovski, North	2,777,782	2,126,439	66,726	16,025,253
<b>Total</b>	<b>62,093,068</b>	<b>32,069,185</b>	<b>543,909</b>	<b>184,813,816</b>

**Trident License Area Contingent Resources as of January 1, 2020**

The 2C contingent resources estimated as of January 1, 2020 amount to 16.7 million barrels of oil/condensate, 17.9 million barrels of plant products and 788.9 billion cubic feet of sales gas. The contingent resources amount to 166.0 million barrels of oil equivalent. A breakdown of the contingent resources is provided in the Table 2 as follows.

The contingent resources can be divided into three main groups:

- 1) Contingent resources which can be mapped – but which are not considered in the drilling program of the business plan, mainly due to the low oil price scenario or pending license extension.
- 2) Contingent resources which cannot be mapped – remaining volumes beyond current license term. These resources were calculated as the difference of the final projected recoverable volumes and the expected cumulative production at the end of current license term.
- 3) The Probable reserves reported at December 31, 2019 have been downgraded to 2C (i.e., C1+C2) contingent resources due to uncertainty in timing of development of the fields.

**Table 2 - Contingent 2C Resources in the Trident License Area as of January 1, 2020**

Field Area	Oil/Condensate, Bbls	Plant products, Bbls	Sales Gas, MMcf	TOTAL BOE using 6:1 conversion by Ryder Scott
Daryinskoye	5,834,269	554,144	26,025	10,725,913
Rostoshinskoye	2,259,679	14,972,927	725,305	138,116,773
Yuzhno-Gremyachenskoye	8,569,342	2,364,937	37,582	17,197,946
<b>Total</b>	<b>16,663,290</b>	<b>17,892,008</b>	<b>788,912</b>	<b>166,040,631</b>

### ***Standards of Independence and Professional Qualification***

Ryder Scott is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1937. Ryder Scott is employee-owned and maintains offices in Houston, Texas; Denver, Colorado; and Calgary, Alberta, Canada. We have approximately eighty engineers and geoscientists on our permanent staff. By virtue of the size of our firm and the large number of clients for which we provide services, no single client or job represents a material portion of our annual revenue. We do not serve as officers or directors of any privately-owned or publicly-traded oil and gas company and are separate and independent from the operating and investment decision-making process of our clients. This allows us to bring the highest level of independence and objectivity to each engagement for our services.

Ryder Scott actively participates in industry related professional societies and organizes an annual public forum focused on the subject of reserves evaluations and SEC regulations. Many of our staff have authored or co-authored technical papers on the subject of reserves related topics. We encourage our staff to maintain and enhance their professional skills by actively participating in ongoing continuing education.

Prior to becoming an officer of the Company, Ryder Scott requires that staff engineers and geoscientists have received professional accreditation in the form of a registered or certified professional engineer's license or a registered or certified professional geoscientist's license, or the equivalent thereof, from an appropriate governmental authority or a recognized self-regulating professional organization. Regulating agencies require that, in order to maintain active status, a certain amount of continuing education hours be completed annually, including an hour of ethics training. Ryder Scott fully supports this technical and ethics training with our internal requirement mentioned above.

We are independent petroleum engineers with respect to Nostrum Oil & Gas PLC and Zhaikmunai LLP. Neither we nor any of our employees have any financial interest in the subject properties and neither the employment to do this work nor the compensation is contingent on our estimates of reserves and resources for the properties which were reviewed.

The results of this study, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott. The professional qualifications of the undersigned, the technical person primarily responsible for overseeing the evaluation of the reserves and contingent resources information discussed in this report, are included as an attachment to this letter.

## **General**

This report reflects the terms of the Production Sharing Agreement between the Republic of Kazakhstan and Zhaikmunai LLP. This report reflects the royalty payment to the Republic of Kazakhstan, the cost oil provisions, profit oil provisions and production bonus payments as set out in the Production Sharing Agreement.

## **Terms of Usage**

This report was prepared for the exclusive use and sole benefit of Nostrum Oil & Gas PLC as described in the first paragraph of this letter and may not be put to other use without our prior written consent for such use. The data, work papers, and maps used in the preparation of this report are available for examination by authorized parties in our offices. Please contact us if we can be of further service.

Very truly yours,

**RYDER SCOTT COMPANY, L.P.**

TBPE Firm Registration No. F-1580



James L. Baird, P.E.  
Colorado License No. 41521  
Advising Senior Vice President



Richard J. Marshall, P.E.  
Colorado License No. 23260  
Associate Senior Engineer

JLB-RJM (FWZ)/pl



## **Professional Qualifications of Primary Technical Person**

The conclusions presented in this report are the result of technical analysis conducted by teams of geoscientists and engineers from Ryder Scott Company, L.P. James Larry Baird was the primary technical person responsible for overseeing the estimate of the reserves.

Mr. Baird, an employee of Ryder Scott Company, L.P. (Ryder Scott) since 2006 to 2018 was a Managing Senior Vice President and served as Manager of the Denver office, responsible for coordinating and supervising staff and consulting engineers of the company in ongoing reservoir evaluation studies worldwide. Mr. Baird is now serving as an Advising Senior Vice President in the Denver office. Before joining Ryder Scott, Mr. Baird served in a number of engineering positions with Gulf Oil Corporation (1970-1973), Northern Natural Gas (1973-1975) and Questar Exploration & Production (1975-2006). For more information regarding Mr. Baird's geographic and job specific experience, please refer to the Ryder Scott Company website at [www.ryderscott.com/Experience/Employees](http://www.ryderscott.com/Experience/Employees).

Mr. Baird earned a Bachelor of Science degree in Petroleum Engineering from the University of Missouri at Rolla in 1970. He is a registered Professional Engineer in the States of Colorado and Utah. He is also a Legion of Honor member of the Society of Petroleum Engineers.

In addition to gaining experience and competency through prior work experience, several State Boards of Professional Engineers require a minimum number of hours of continuing education annually, including at least one hour in the area of professional ethics, which Mr. Baird fulfills as part of his registration in two states. As part of his continuing education, Mr. Baird attends internally presented training as well as public forums relating to the definitions and disclosure guidelines contained in the United States Securities and Exchange Commission Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, and Final Rule released January 14, 2009 in the Federal Register. Mr. Baird attends additional hours of formalized internal and external training covering such topics as the SPE/WPC/AAPG/SPEE Petroleum Resources Management System, reservoir engineering and petroleum economics evaluation methods, various analysis software and ethics for consultants.

Based on his educational background, professional training and more than 50 years of practical experience in the estimation and evaluation of petroleum reserves, Mr. Baird has attained the professional qualifications as a Reserves Estimator and Reserves Auditor set forth in Article III of the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information" promulgated by the Society of Petroleum Engineers as of February 19, 2007.

# **PETROLEUM RESERVES and RESOURCES CLASSIFICATIONS and DEFINITIONS**

**As Adapted From:**

**2018 PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)<sup>1</sup>**

**Sponsored and Approved by:**

**SOCIETY OF PETROLEUM ENGINEERS (SPE)**

**WORLD PETROLEUM COUNCIL (WPC)**

**AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)**

**SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)**

**SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)**

**SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS (SPWLA)**

**EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS (EAGE)**

## ***SECTION A - PREAMBLE - RESERVES***

Reserves are those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward under defined conditions. All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability.

Estimation of reserves is done under conditions of uncertainty. The method of estimation is called deterministic if a single best estimate of reserves is made based on known geological, engineering, and economic data. The method of estimation is called probabilistic when the known geological, engineering, and economic data are used to generate a range of estimates and their associated probabilities. Identifying reserves as proved, probable, and possible has been the most frequent categorization method and gives an indication of the probability of recovery. Because of the differences in uncertainty, caution should be exercised when aggregating reserves of different categories.

Reserves estimates will generally be revised as additional geologic or engineering data becomes available or as economic conditions change.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural reservoir energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

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<sup>1</sup> Petroleum Resources Management System prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE); reviewed and jointly sponsored by the World Petroleum Council (WPC), the American Association of Petroleum Geologists (AAPG), the Society of Petroleum Evaluation Engineers (SPEE), Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA), and European Association of Geoscientists & Engineers (EAGE), March 2007 and revised June 2018.

Reserves may be attributed to either conventional or unconventional petroleum accumulations under the SPE-PRMS. Petroleum accumulations are considered as either conventional or unconventional based on the nature of their in-place characteristics, extraction method applied, or degree of processing prior to sale. Examples of unconventional petroleum accumulations include coalbed or coalseam methane (CBM/CSM), basin-centered gas (low permeability), tight gas and tight oil (low permeability), shale gas, gas hydrates, natural bitumen (very high viscosity oil) and oil shale deposits. These unconventional accumulations may require specialized extraction technology and/or significant processing prior to sale. The SPE-PRMS acknowledges unconventional petroleum accumulations as reserves regardless of their in-place characteristics, the extraction method applied, or the degree of processing required.

Reserves do not include quantities of petroleum being held in inventory and may be reduced for usage, processing losses and/or non-hydrocarbons that must be removed prior to sale.

### ***SPE-PRMS RESERVES DEFINITIONS***

In March 2007, the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG), and Society of Petroleum Evaluation Engineers (SPEE) jointly approved the “Petroleum Resources Management System” (“SPE-PRMS”); subsequently also supported by the Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA), and European Association of Geoscientists & Engineers (EAGE). SPE-PRMS was revised in June 2018. The SPE-PRMS consolidates, builds on, and replaces guidance previously contained in the 2000 “Petroleum Resources Classification and Definitions” and the 2001 “Guidelines for the Evaluation of Petroleum Reserves and Resources” publications.

The intent of the SPE, WPC, AAPG, SPEE, SEG, SPWLA, and EAGE in approving additional categories beyond proved reserves is to facilitate consistency among professionals using such terms. In presenting these definitions, none of these organizations are recommending public disclosure of reserves categorized as unproved. Public disclosure of the quantities categorized as unproved reserves is left to the discretion of the countries or companies involved and should not be construed as replacing guidelines for public disclosures under the guidelines established by regulatory and/or other governmental agencies.

Reference should be made to the full SPE-PRMS for the complete definitions and guidelines as the following definitions, descriptions and explanations rely wholly or in part on excerpts from the SPE-PRMS document (direct passages excerpted from the SPE-PRMS document are denoted in italics and footnoted with Section references herein).

### **RESERVES DEFINITIONS**

***Reserves.*** *Reserves are 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 satisfy four criteria: they must be discovered, recoverable, commercial and remaining 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 the development and production status.<sup>2</sup>*

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<sup>2</sup> Table 1, “Reserves”, Definition & Guidelines

**ADDITIONAL TERMS USED IN RESERVES EVALUATIONS (SPE-PRMS DEFINITIONS)**

**Improved recovery.** Improved Recovery is the extraction of additional petroleum, beyond primary recovery, from naturally occurring reservoirs by supplementing the natural forces in the reservoir. It includes waterflooding and gas injection for pressure maintenance, secondary processes, tertiary processes and any other means of supplementing natural reservoir recovery processes. Improved recovery also includes thermal and chemical processes to improve the in-situ mobility of viscous forms of petroleum. (Also called enhanced recovery.)<sup>3</sup>

Improved recovery projects must meet the same Reserves technical and commercial maturity criteria as primary recovery projects.<sup>4</sup> Similarly there should be an expectation that the project will be economically viable, which includes the requirement that there is evidence of firm intention to proceed with development within a reasonable time-frame<sup>5</sup> (generally within 5 years; further delays should be clearly justified). If there is significant project risk, the forecast incremental recoveries should be classified as Contingent Resources.

The judgment on commerciality is based on pilot project results within the subject reservoir or by comparison to a reservoir with analogous rock and fluid properties and where a similar established improved recovery project has been successfully applied.<sup>6</sup>

Incremental recoveries through improved recovery methods that have yet to be established through routine, commercially successful applications are included as Reserves only after a favorable production response from the subject reservoir from either (a) a representative pilot or (b) an installed portion of the project, where the response provides support for the analysis on which the project is based. The improved recovery project's resources will remain classified as Contingent Resources Development Pending until the pilot has demonstrated both technical and commercial feasibility and the full project passes the Justified for Development "decision gate."<sup>7</sup>

The types of in-place petroleum resources defined as conventional and unconventional may require different evaluation approaches and/or extraction methods. However, the PRMS resources definitions, together with the classification system, apply to all types of petroleum accumulations regardless of the in-place characteristics, extraction method applied, or degree of processing required.<sup>8</sup>

A project is commercial when there is evidence of a firm intention to proceed with development within a reasonable time-frame. Typically, this requires that the best estimate case meet or exceed the minimum evaluation decision criteria (e.g., rate of return, investment payout time). There must be a reasonable expectation that all required internal and external approvals will be forthcoming. Also, there must be evidence of a technically mature, feasible development plan and the essential social, environmental, economic, political, legal, regulatory, decision criteria, and contractual conditions are met.<sup>9</sup>

A reasonable time-frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a benchmark, a longer time-frame could be applied where justifiable; for example, development of economic projects that take longer than five years to be developed or are deferred to meet contractual or strategic objectives. In

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<sup>3</sup> Appendix A, "Improved Recovery"

<sup>4</sup> Section 2.3.4.2

<sup>5</sup> Table 1, "Reserves", Guidelines

<sup>6</sup> Section 2.3.4.3

<sup>7</sup> Section 2.3.4.4

<sup>8</sup> Section 2.4.0.1

<sup>9</sup> Appendix A, "Commercial"

*all cases, the justification for classification as Reserves should be clearly documented.*<sup>10</sup>

### **PROVED RESERVES (SPE-PRMS DEFINITIONS)**

**Proved oil and gas reserves.** *Proved Reserves are those quantities of petroleum that, 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 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% probability (P90) that the quantities actually recovered will equal or exceed the estimate.*

*The area of the reservoir considered as Proved includes:*

- (1) the area delineated by drilling and defined by fluid contacts, if any, and*
- (2) adjacent undrilled portions of the reservoir that can reasonably be judged as continuous with it and commercially productive on the basis of available geoscience and engineering data.*<sup>11</sup>

*In the absence of data on fluid contacts, Proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless otherwise indicated by definitive geoscience, engineering, or performance data. Such definitive information may include pressure gradient analysis and seismic indicators. Seismic data alone may not be sufficient to define fluid contacts for Proved. (see “2001 Supplemental Guidelines”, Chapter 8).*

*Reserves in undeveloped locations may be classified as Proved provided that:*

- The locations are in undrilled areas of the reservoir that can be judged with reasonable certainty to be commercially mature and economically productive.*
- Interpretations of available geoscience and engineering data indicate with reasonable certainty that the objective formation is laterally continuous with drilled Proved locations.*

*For Proved Reserves, the recovery efficiency applied to these reservoirs should be defined based on a range of possibilities supported by analogs and sound engineering judgment considering the characteristics of the Proved area and the applied development program.*<sup>12</sup>

### **PROBABLE RESERVES (SPE-PRMS DEFINITIONS)**

**Probable oil and gas reserves.** *Probable Reserves are those additional Reserves that analysis of geoscience and engineering data indicates 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% probability that the actual quantities recovered will equal or exceed the 2P estimate.*

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<sup>10</sup> Section 2.1.2.3

<sup>11</sup> Table 3, “Proved Reserves”, Definition & Guidelines

<sup>12</sup> Table 3, “Proved Reserves”, Definition & Guidelines

*Probable Reserves may be assigned to areas of a reservoir adjacent to Proved where data control or interpretations of available data are less certain. The interpreted reservoir continuity may not meet the reasonable certainty criteria. Probable estimates also include incremental recoveries associated with project recovery efficiencies beyond that assumed for Proved.*<sup>13</sup>

### **POSSIBLE RESERVES (SPE-PRMS DEFINITIONS)**

**Possible oil and gas reserves.** *Possible Reserves are those additional reserves that analysis of geoscience and engineering data indicates 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 Possible (3P), which is equivalent to the high-estimate scenario. When probabilistic methods are used, there should be at least a 10% probability (P10) that the actual quantities recovered will equal or exceed the 3P estimate.*

*Possible Reserves may be assigned to areas of a reservoir adjacent to Probable where data control and interpretations of available data are progressively less certain. Frequently, this may be in areas where geoscience and engineering data are unable to clearly define the area and vertical reservoir limits of economic production from the reservoir by a defined, commercially mature project. Possible estimates also include incremental quantities associated with project recovery efficiencies beyond that assumed for Probable.*<sup>14</sup>

## **SECTION B - PREAMBLE – RESERVES & RESOURCES**

Reserves and resources classification systems are intended to provide a consistent approach to estimating petroleum quantities and evaluating projects and thereby allow the evaluator to follow the progression of changes in the exploration and production life cycle of a reservoir, field, or project that arise as a result of obtaining more technical information or as a result of a change in the economic status. Most systems incorporate terminology to describe the progression of a project from the delineation of an initial prospect, to the confirmation of the prospect through exploration drilling, onto the appraisal and development phase, and finally from initial production through depletion. *The evaluation elements consider the risk of geologic discovery and the technical uncertainties together with a determination of the chance of achieving the commercial maturation status of a petroleum project.*<sup>15</sup> These reserves and resources definitions thus provide the decision making framework to manage risk and uncertainty through the classification and categorization of the recoverable hydrocarbon volumes.

*The term resources as used herein is intended to encompass all quantities of petroleum naturally occurring within the Earth's crust, both discovered and undiscovered (whether recoverable or unrecoverable), plus those quantities already produced. Further it includes all types of petroleum whether currently considered as conventional or unconventional resources.*<sup>16</sup>

Reserves are a subset of resources and are 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 satisfy four criteria: discovered, recoverable, commercial, and remaining (as of the evaluation's effective date) based on the development project(s) applied.<sup>17</sup>

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<sup>13</sup> Table 3, "Probable Reserves", Definition & Guidelines

<sup>14</sup> Table 3, "Possible Reserves", Definition & Guidelines

<sup>15</sup> Section 1.0.0.1 A

<sup>16</sup> Section 1.1.0.2

<sup>17</sup> Section 1.1.0.6 A 1

All reserves and resources estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. Estimates will generally be revised as additional geologic or engineering data becomes available or as economic conditions change. Commercial factors must also be considered in the classification of resources.

Estimation of reserves and resources is done under conditions of uncertainty. The method of estimation is called deterministic if a single best estimate of reserves and resources is made based on known geological, engineering, and economic data. The method of estimation is called probabilistic when the known geological, engineering, and economic data are used to generate a range of estimates and their associated probabilities. Because of the differences in uncertainty, caution should be exercised when aggregating quantities of petroleum from different reserves categories and/or resources classifications.

Reserves and resources may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural reservoir energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

Reserves and resources may be attributed to either conventional or unconventional petroleum accumulations under the SPE-PRMS. Petroleum accumulations are considered as either conventional or unconventional based on the nature of their in-place characteristics, extraction method applied, or degree of processing prior to sale. Examples of unconventional petroleum accumulations include coalbed or coalseam methane (CBM/CSM), basin-centered gas (low permeability), tight gas and tight oil (low permeability), shale gas, gas hydrates, natural bitumen (very high viscosity oil) and oil shale deposits. These unconventional accumulations may require specialized extraction technology and/or significant processing prior to sale. The SPE-PRMS acknowledges unconventional petroleum accumulations as reserves and resources regardless of their in-place characteristics, the extraction method applied, or the degree of processing required.

Reserves and resources do not include quantities of petroleum being held in inventory and may be reduced for usage, processing losses and/or non-hydrocarbons that must be removed prior to sale.

### ***SPE-PRMS RESOURCES DEFINITIONS***

In March 2007, the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG), and Society of Petroleum Evaluation Engineers (SPEE) jointly approved the "Petroleum Resources Management System" ("SPE-PRMS"); subsequently supported by the Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA), and European Association of Geoscientists & Engineers (EAGE). SPE-PRMS was revised in June 2018. The SPE-PRMS consolidates, builds on, and replaces guidance previously contained in the 2000 "Petroleum Resources Classification and Definitions" and the 2001 "Guidelines for the Evaluation of Petroleum Reserves and Resources" publications.

Reference should be made to the full SPE-PRMS for the complete definitions and guidelines as the following definitions, descriptions and explanations rely wholly or in part on excerpts from the SPE-PRMS document (direct passages excerpted from the SPE-PRMS document are denoted in italics and footnoted with Section references herein). For convenience, Table 1: "Recoverable Resources Classes and Sub-Classes" from the SPE-PRMS has been reproduced in full and included as an attachment to this document.

The SPE-PRMS incorporates the petroleum initially-in-place as well as the recoverable and unrecoverable petroleum quantities into a common resources classification framework. *Petroleum is defined as a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid, or solid state.*<sup>18</sup>

The SPE-PRMS defines the major resources classes: Production, Reserves, Contingent Resources, and Prospective Resources, as well as Unrecoverable petroleum. The basic classification scheme requires establishment of criteria for a petroleum discovery and thereafter the distinction between commercial (Reserves) and sub-commercial projects (Contingent Resources) in known accumulations. Under this classification scheme, estimated recoverable quantities from accumulations that have yet to be discovered are termed Prospective Resources. Further, the SPE-PRMS includes all types of petroleum whether currently considered “conventional” or “unconventional”.

Figure 1 shown at the end of this document is a graphical representation of the SPE-PRMS resources classification system. The SPE-PRMS “classifies” reserves and resources according to project maturity and increasing *chance of commerciality* (vertical axis), *which is the chance that a project will be committed for development and reach commercial producing status.*<sup>19</sup> It also “categorizes” reserves and resources according to the *range of uncertainty* (horizontal axis) *of the estimated quantities potentially recoverable from an accumulation by a project.*<sup>20</sup> The following definitions apply to the major subdivisions within the resources classification:

### **RESOURCES CLASSIFICATION (SPE-PRMS)**

Recoverable petroleum resources as described herein may be classified into one of three principal resources classifications: Prospective Resources, Contingent Resources, or Reserves. The distinction between Prospective and Contingent Resources depends on whether or not there exists one or more wells and other data indicating the potential for moveable hydrocarbons (e.g. the discovery status). Discovered petroleum resources may be classified as either Contingent Resources or as Reserves depending on the chance that if a project is implemented it will reach commercial producing status (e.g. chance of commerciality). The distinction between various “classifications” of Resources and Reserves relates to their discovery status and increasing chance of commerciality as described herein.

### **TOTAL PETROLEUM-INITIALLY-IN-PLACE**

*Total Petroleum-Initially-in-Place (PIIP) is all quantities of petroleum that are estimated to exist originally in naturally occurring accumulations, discovered and undiscovered, before production.*<sup>21</sup>

Total Petroleum-Initially-in-Place may be subdivided into Discovered Petroleum-Initially-in-Place and Undiscovered Petroleum-Initially-in-Place, with Discovered Petroleum-Initially-in-Place being limited to known accumulations.

It is recognized that not all of the Petroleum-Initially-in-Place quantities may constitute potentially recoverable resources since the estimation of the proportion which may be recoverable can be subject to significant uncertainty and will change with variations in commercial circumstances, technological developments and data availability.

Given the aforementioned constraints, a portion of the Petroleum-Initially-in-Place may need to be classified as Unrecoverable.

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<sup>18</sup> Section 1.1.0.1

<sup>19</sup> Section 1.1.0.4

<sup>20</sup> Section 1.1.0.4

<sup>21</sup> Section 1.1.0.5 A



**DISCOVERED PETROLEUM-INITIALLY-IN-PLACE**

*Discovered PIIP is the quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations before production.<sup>22</sup>*

Discovered PIIP may be subdivided into Commercial and Sub-commercial categories, with the estimated potentially recoverable portion being classified as Reserves and Contingent Resources respectively, as defined below.

**KNOWN ACCUMULATION**

The SPE-PRMS defines an accumulation as *an individual body of naturally occurring petroleum in a reservoir.*<sup>23</sup> For an accumulation to be considered as “known”, it must have been discovered. Discovered is defined as *a petroleum accumulation where one or several exploratory wells through testing, sampling, and/or logging have demonstrated the existence of a significant quantity of potentially recoverable hydrocarbons and thus have established a known accumulation.*<sup>24</sup> The SPE-PRMS states that in this context, “significant” implies that there is evidence of a sufficient quantity of petroleum to justify estimating the in-place volume demonstrated by the well(s) and for evaluating the potential for technical recovery.<sup>25</sup> Known accumulations may contain Reserves and/or Contingent Resources.

**RESERVES**

*Reserves are defined as 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: discovered, recoverable, commercial, and remaining (as of the evaluation’s effective date) based on the development project(s) applied.*<sup>26</sup>

*Reserves are further categorized in accordance with the range of uncertainty and should be sub-classified based on project maturity and/or characterized by development and production status.*<sup>27</sup> Reference should be made to the full SPE-PRMS for the complete definitions and guidelines.

**CONTINGENT RESOURCES**

*Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development project(s) not currently considered to be commercial owing to one or more contingencies. Contingent Resources have an associated chance of development. 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 range of uncertainty*

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<sup>22</sup> Section 1.1.0.5 B

<sup>23</sup> Appendix A, “Accumulation”

<sup>24</sup> Appendix A, “Discovered”

<sup>25</sup> Appendix A, “Discovered”

<sup>26</sup> Section 1.1.0.6 A.1.

<sup>27</sup> Section 1.1.0.6 A.3

*associated with the estimates and should be sub-classified based on project maturity and/or economic status.*<sup>28</sup> Reference should be made to the full SPE-PRMS for the complete definitions and guidelines.

### **UNDISCOVERED PETROLEUM-INITIALLY-IN-PLACE**

*Undiscovered PIIP is that quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.*<sup>29</sup>

The estimated potentially recoverable portion of Undiscovered PIIP is classified as Prospective Resources, as defined below.

### **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 geologic discovery and a chance of development. Prospective Resources are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be sub-classified based on project maturity.*<sup>30</sup> Reference should be made to the full SPE-PRMS for the complete definitions and guidelines.

### **UNRECOVERABLE**

*Unrecoverable Resources are that portion of either discovered or undiscovered PIIP evaluated, as of a given date, to be unrecoverable by the currently defined project(s). A portion of these quantities may become recoverable in the future as commercial circumstances change, technology is developed, or additional data are acquired. The remaining portion may never be recovered because of physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.*<sup>31</sup>

### **ADDITIONAL TERMS USED IN RESOURCES CLASSIFICATION (SPE-PRMS)**

#### **CHANCE OF COMMERCIALITY**

The “Chance of Commerciality”, as denoted in the SPE-PRMS and as shown in Figure 1, is *the estimated probability that the project will achieve commercial maturity to be developed. For Prospective Resources, this is the product of the chance of geologic discovery and the chance of development. For Contingent Resources and Reserves, it is equal to the chance of development.*<sup>32</sup>

The chance of commerciality is determined by the probability of a discrete event occurring. In the context of the SPE-PRMS, the discrete event is comprised of one of several conditions, as noted below, which impact the project’s commercial viability.

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<sup>28</sup> Section 1.1.0.6 B.

<sup>29</sup> Section 1.1.0.6 C.

<sup>30</sup> Section 1.1.0.6 D.

<sup>31</sup> Section 1.1.0.6 E.

<sup>32</sup> Appendix A, “Chance of Commerciality”

*The commercial viability of a development project within a field's development plan is dependent on a forecast of the conditions that will exist during the time period encompassed by the project. Conditions include technical, economic (e.g., hurdle rates, commodity prices), operating and capital costs, marketing, sales route(s), and legal, environmental, social, and governmental factors forecast to exist and impact the project during the time period being evaluated. While economic factors can be summarized as forecast costs and product prices, the underlying influences include, but are not limited to, market conditions (e.g., inflation, market factors, and contingencies), exchange rates, transportation and processing infrastructure, fiscal terms, and taxes.<sup>33</sup>*

*A project may constitute the development of a well, a single reservoir, or a small field; an incremental development in a producing field; or the integrated development of a field or several fields together with the associated processing facilities (e.g., compression).<sup>34</sup> An accumulation or potential accumulation of petroleum is often subject to several separate and distinct projects that are at different stages of exploration or development. Thus, an accumulation may have recoverable quantities in several resources classes simultaneously.<sup>35</sup>*

### **COMMERCIALITY APPLIED TO RESERVES**

*Discovered recoverable quantities (Contingent Resources) may be considered commercially mature, and thus attain Reserves classification, if the entity claiming commerciality has demonstrated a firm intention to proceed with development. This means the entity has satisfied the internal decision criteria (typically rate of return at or above the weighted average cost-of-capital or the hurdle rate). Commerciality is achieved with the entity's commitment to the project and all of the following criteria:*

- A. Evidence of a technically mature, feasible development plan.*
- B. Evidence of financial appropriations either being in place or having a high likelihood of being secured to implement the project.*
- C. Evidence to support a reasonable time-frame for development.*
- D. A reasonable assessment that the development projects will have positive economics and meet defined investment and operating criteria. This assessment is performed on the estimated entitlement forecast quantities and associated cash flow on which the investment decision is made (see Section 3.1.1, Net Cash-Flow Evaluation).*
- E. A reasonable expectation that there will be a market for forecast sales quantities of the production required to justify development. There should also be similar confidence that all produced streams (e.g., oil, gas, water, CO<sub>2</sub>) can be sold, stored, re-injected, or otherwise appropriately disposed.*
- F. Evidence that the necessary production and transportation facilities are available or can be made available.*
- G. Evidence that legal, contractual, environmental, regulatory, and government approvals are in place or will be forthcoming, together with resolving any social and economic concerns.<sup>36</sup>*

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<sup>33</sup> Section 1.2.0.10

<sup>34</sup> Section 1.2.0.4

<sup>35</sup> Section 1.2.0.8

<sup>36</sup> Section 2.1.2.1

*To be included in the Reserves class, a project must be sufficiently defined to establish both its technical and commercial viability as noted above (in Section 2.1.2.1). There must be a reasonable expectation that all required internal and external approvals will be forthcoming and evidence of firm intention to proceed with development within a reasonable time-frame. A reasonable time-frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a benchmark, a longer time-frame could be applied where justifiable; for example, development of economic projects that take longer than five years to be developed or are deferred to meet contractual or strategic objectives. In all cases, the justification for classification as Reserves should be clearly documented.<sup>37</sup>*

*For a project to be included in a Reserves class, there must be a high confidence in the commercial maturity and economic producibility of the reservoir as supported by actual production or formation tests. In certain cases, Reserves may be assigned on the basis of well logs and/or core analysis that indicate that the subject reservoir is hydrocarbon-bearing and is analogous to reservoirs in the same area that are producing or have demonstrated the ability to produce on formation tests.<sup>38</sup>*

### **COMMERCIALITY APPLIED TO CONTINGENT RESOURCES**

Potentially recoverable quantities from known accumulations that are not currently considered to be commercially recoverable owing to one or more contingencies<sup>39</sup> should be classified as Contingent Resources.

*Based on assumptions regarding future conditions and the impact on ultimate economic viability, projects currently classified as Contingent Resources may be broadly divided into two groups:*

- A. **Economically Viable Contingent Resources** are those quantities associated with technically feasible projects where cash flows are positive under reasonably forecasted conditions but are not Reserves because it does not meet the commercial criteria defined above (in Section 2.1.2.).
- B. **Economically Not Viable Contingent Resources** are those quantities for which development projects are not expected to yield positive cash flows under reasonable forecast conditions.<sup>40</sup>

**Unrecoverable Resources** are that portion of either discovered or undiscovered PIIP evaluated, as of a given date, to be unrecoverable by the currently defined project(s).<sup>41</sup>

### **RESOURCES CATEGORIZATION (SPE-PRMS)**

All estimates of the quantities of petroleum potentially recoverable from an accumulation classified as having Prospective or Contingent Resources or Reserves involve uncertainty. The relative degree of uncertainty may be conveyed by placing the estimated quantities into one of several “categories” as described herein.

### **RANGE OF UNCERTAINTY**

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<sup>37</sup> Section 2.1.2.3

<sup>38</sup> Table 1 “Reserves”, Guidelines

<sup>39</sup> Table 1, “Contingent Resources”, Definition

<sup>40</sup> Section 2.1.3.7.1

<sup>41</sup> Section 1.1.0.6 E.

The Range of Uncertainty, as denoted in the SPE-PRMS and as shown in Figure 1, reflects a range of estimated quantities potentially recoverable from an accumulation by a project. *Evaluators may assess recoverable quantities and categorize results by uncertainty using the deterministic incremental method, the deterministic scenario (cumulative) method, geostatistical methods, or probabilistic methods (see Section 4.2, Resources Assessment Methods). Also, combinations of these methods may be used.*<sup>42</sup>

### **DETERMINISTIC METHODS (SPE-PRMS)**

For estimates using Deterministic Methods, an evaluator chooses *an assessment method based on discrete estimate(s) made based on available geoscience, engineering, and economic data and corresponds to a given level of certainty.*<sup>43</sup>

*In the deterministic method, quantities are estimated by taking a discrete value or array of values for each input parameter to produce a discrete result. For the low-, best- and high-case estimates, the internally consistent deterministic inputs are selected to reflect the resultant confidence of the project scenario and the constraints applied for the resources category and resources class. A single outcome of recoverable quantities is derived for each deterministic increment or scenario. Two approaches are included in the deterministic method—the scenario (or cumulative) method and the incremental method—and should yield similar results.*<sup>44</sup>

### **RESERVES**

*For Reserves, the general cumulative terms low/best/high forecasts are used to estimate the resulting 1P/2P/3P quantities, respectively. The associated incremental quantities are termed Proved (P1), Probable (P2) and Possible (P3).*<sup>45</sup>

### **CONTINGENT RESOURCES**

For Contingent Resources, the range of uncertainty is generally expressed in deterministic scenario (cumulative) terms or in terms of probability using probabilistic methods. *For Contingent Resources, the general cumulative terms low/best/high estimates are used to estimate the resulting 1C/2C/3C quantities, respectively. The terms C1, C2, and C3 are defined for incremental quantities of Contingent Resources.*<sup>46</sup>

Should evaluators choose to characterize the range of uncertainty for Contingent in discrete incremental quantities, they should denote such quantities as such and provide sufficient detail in their report to allow an independent evaluator or auditor to clearly understand the basis for estimation and categorization of the recoverable quantities.

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<sup>42</sup> Section 2.2.2.1

<sup>43</sup> Appendix A, "Deterministic Method"

<sup>44</sup> Section 4.2.1.1

<sup>45</sup> Section 2.2.2.2

<sup>46</sup> Section 2.2.2.3



## **PROSPECTIVE RESOURCES**

For Prospective Resources, the range of uncertainty is generally expressed in deterministic scenario (cumulative) terms as low, best and high estimates or in terms of probability using probabilistic methods. *For Prospective Resources, the general cumulative terms low/best/high estimates also apply and are used to estimate the resulting 1U/2U/3U quantities. No specific terms are defined for incremental quantities within Prospective Resources.*<sup>47</sup>

## **BEST ESTIMATE**

To best communicate uncertainty in estimates of resources volumes, a range of potential results can be reported. However, if a single representative result is required to be reported, the "best estimate" should represent *the most realistic assessment of recoverable quantities. If probabilistic methods are used, there should be at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate.*<sup>48</sup> The term "best estimate" is used here as a generic expression for the estimate considered being closest to the quantity that will actually be recovered from the accumulation between the date of the estimate and the time of abandonment. *The best estimate is generally considered to represent the sum of Proved and Probable estimates (2P) for Reserves or 2C when Contingent Resources are cited, when aggregating a field, multiple fields, or an entity's resources.*<sup>49</sup> It should be noted that under the deterministic incremental method, discrete estimates are made for each category and should not be aggregated without due consideration of associated confidence.<sup>50</sup> In the case of Contingent Resources and Prospective Resources, the best estimate would be represented by the 2C and 2U, respectively. If probabilistic methods are used, this term would generally be a measure of central tendency of the uncertainty distribution (most likely/mode, median/P50 or mean). The terms "Low Estimate" and "High Estimate" should provide a reasonable assessment of the range of uncertainty in the Best Estimate.

## **PROBABILISTIC METHODS (SPE-PRMS)**

If probabilistic methods are used, these estimated quantities should be based on methodologies analogous to those applicable to the definitions of Reserves, Contingent Resources and Prospective Resources; therefore, in general, the resulting probabilities should correspond to the deterministic (cumulative) terms as follows:

- There should be at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the 1P, 1C or 1U (Low Estimate).
- There should be at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the 2P, 2C or 2U (Best Estimate).
- There should be at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the 3P, 3C or 3U (High Estimate).

## **COMPARABILITY OF SIMILAR RESERVES AND RESOURCES CATEGORIES**

As indicated in Figure 1, the 1C, 2C and 3C Contingent Resources estimates and the 1U, 2U and 3U Prospective Resources estimates of potentially recoverable volumes should reflect some comparability with the reserves categories of Proved (1P), Proved plus Probable (2P) and Proved plus

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<sup>47</sup> Section 2.2.2.4

<sup>48</sup> Appendix A, "Best Estimate", Definition

<sup>49</sup> Section 2.2.2.10

<sup>50</sup> Section 2.2.2.11

Probable plus Possible (3P), respectively. *While there may be significant chance that sub-commercial and undiscovered accumulations will not achieve commercial production, it is useful to consider the range of potentially recoverable quantities independent of such likelihood when considering what resources class to assign the project quantities.*<sup>51</sup>

*Without new technical information, there should be no change in the distribution of technically recoverable resources and the categorization boundaries when conditions are satisfied to reclassify a project from Contingent Resources to Reserves.*<sup>52</sup>

### **AGGREGATION**

*Petroleum quantities classified as Reserves, Contingent Resources, or Prospective Resources should not be aggregated with each other without a clear understanding and explanation of the technical and commercial risk involved with their classification. In particular, there may be a chance that accumulations containing Contingent Resources and/or Prospective Resources will not achieve commercial maturity.*<sup>53</sup> Similarly, reserves and resources of different categories should not be aggregated with each other without due consideration of the significant differences in the criteria associated with their categorization.

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<sup>51</sup> Section 2.2.1.6

<sup>52</sup> Section 2.2.2.6

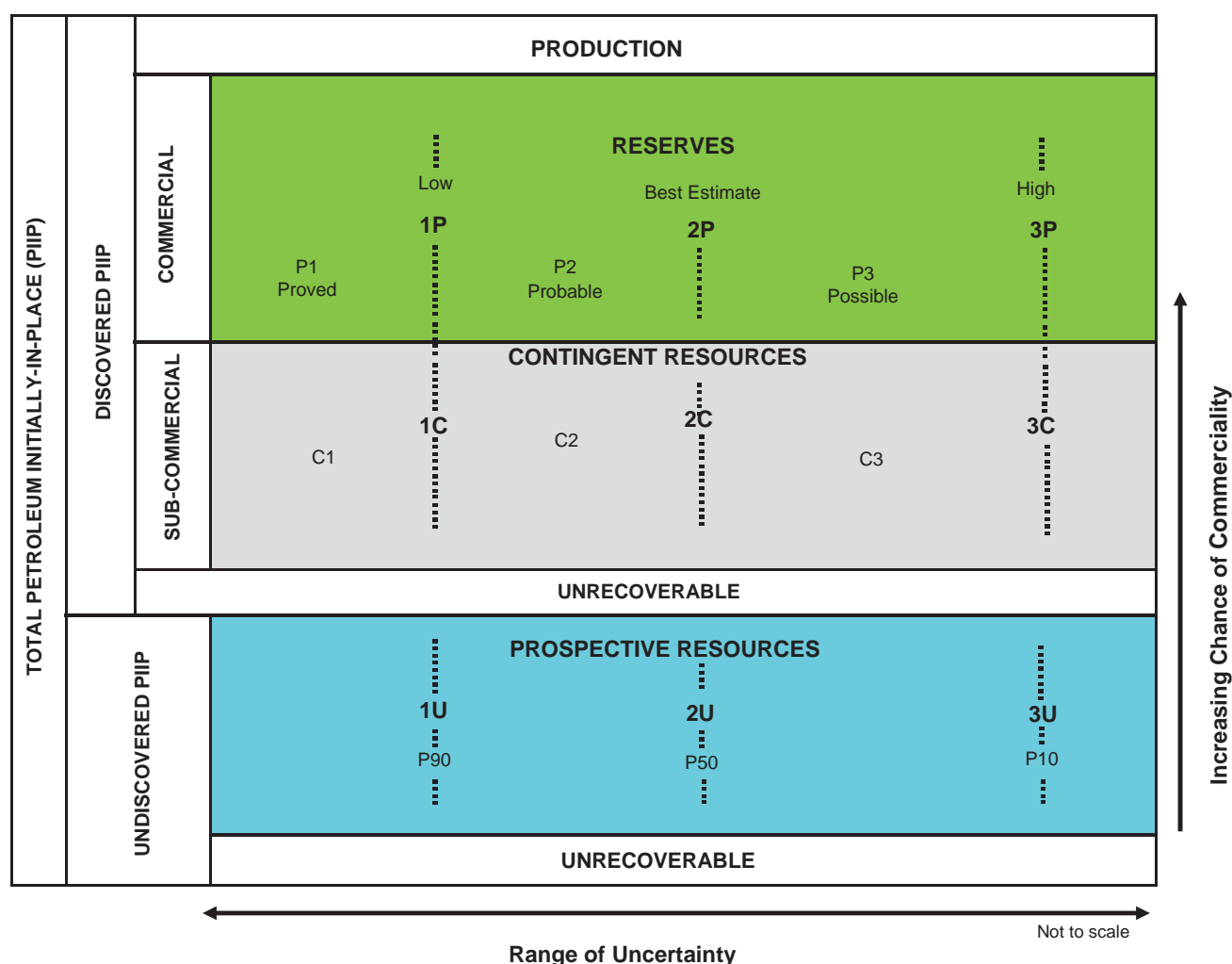
<sup>53</sup> Section 4.2.6.1

## **RESOURCES CLASSIFICATION SYSTEM (SPE-PRMS)**

### **GRAPHICAL REPRESENTATION**

Figure 1 is a graphical representation of the SPE-PRMS resources classification framework. *The horizontal axis reflects the range of uncertainty of estimated quantities potentially recoverable from an accumulation by a project, while the vertical axis represents the chance of commerciality, which is the chance that a project will be committed for development and reach commercial producing status.*<sup>54</sup>

**Figure 1  
SPE-PRMS  
RESOURCES CLASSIFICATION FRAMEWORK**



**Figure 1.1-Resources classification framework**

<sup>54</sup> Section 1.1.0.4

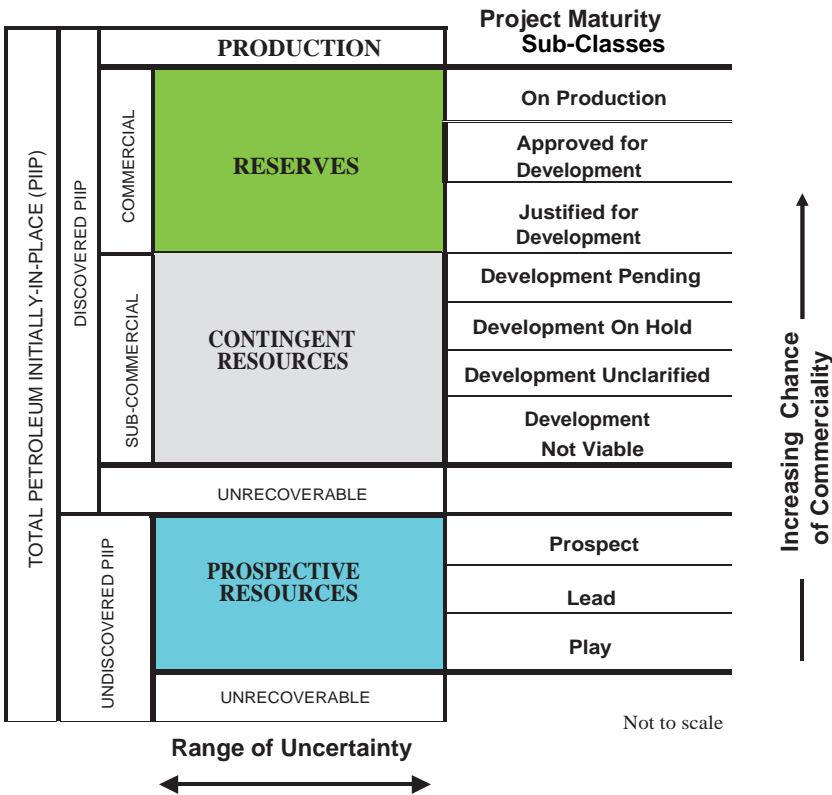


**RESOURCES CLASSIFICATION SYSTEM (SPE-PRMS)**

**GRAPHICAL REPRESENTATION**

Figure 2 is a graphical illustration of the manner in which SPE-PRMS resources *may be sub-classified according to project maturity levels and the associated actions (i.e., business decisions) required to move a project toward commercial production.*<sup>55</sup>

**Figure 2  
SPE-PRMS  
SUB-CLASSES BASED ON PROJECT MATURITY**



**Figure 2.1—Sub-classes based on project maturity**

<sup>55</sup> Section 2.1.3.5.1

**Table 1—Recoverable Resources Classes and Sub-Classes<sup>1</sup>**

<b>Class/Sub-Class</b>	<b>Definition</b>	<b>Guidelines</b>
<b>Reserves</b>	Reserves are 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.	<p>Reserves must satisfy four criteria: discovered, recoverable, commercial, and remaining 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 the development and production status.</p> <p>To be included in the Reserves class, a project must be sufficiently defined to establish its commercial viability (see Section 2.1.2, Determination of Commerciality). This includes the requirement that there is evidence of firm intention to proceed with development within a reasonable time-frame.</p> <p>A reasonable time-frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a benchmark, a longer time-frame could be applied where, for example, development of an economic project is deferred at the option of the producer for, among other things, market-related reasons or to meet contractual or strategic objectives. In all cases, the justification for classification as Reserves should be clearly documented.</p> <p>To be included in the Reserves class, there must be a high confidence in the commercial maturity and economic producibility of the reservoir as supported by actual production or formation tests. In certain cases, Reserves may be assigned on the basis of well logs and/or core analysis that indicate that the subject reservoir is hydrocarbon-bearing and is analogous to reservoirs in the same area that are producing or have demonstrated the ability to produce on formation tests.</p>
<b>On Production</b>	The development project is currently producing or capable of producing and selling petroleum to market.	<p>The key criterion is that the project is receiving income from sales, rather than that the approved development project is necessarily complete. Includes Developed Producing Reserves.</p> <p>The project decision gate is the decision to initiate or continue economic production from the project.</p>
<b>Approved for Development</b>	All necessary approvals have been obtained, capital funds have been committed, and implementation of the development project is ready to begin or is under way.	<p>At this point, it must be certain that the development project is going ahead. The project must not be subject to any contingencies, such as outstanding regulatory approvals or sales contracts. Forecast capital expenditures should be included in the reporting entity's current or following year's approved budget.</p> <p>The project decision gate is the decision to start investing capital in the construction of production facilities and/or drilling development wells.</p>

Class/Sub-Class	Definition	Guidelines
<b>Justified for Development</b>	Implementation of the development project is justified on the basis of reasonable forecast commercial conditions at the time of reporting, and there are reasonable expectations that all necessary approvals/contracts will be obtained.	<p>To move to this level of project maturity, and hence have Reserves associated with it, the development project must be commercially viable at the time of reporting (see Section 2.1.2, Determination of Commerciality) and the specific circumstances of the project. All participating entities have agreed and there is evidence of a committed project (firm intention to proceed with development within a reasonable time-frame)) There must be no known contingencies that could preclude the development from proceeding (see Reserves class).</p> <p>The project decision gate is the decision by the reporting entity and its partners, if any, that the project has reached a level of technical and commercial maturity sufficient to justify proceeding with development at that point in time.</p>
<b>Contingent Resources</b>	Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable owing to one or more contingencies.	<p>Contingent Resources may include, for example, projects for which there are currently no viable markets, where commercial recovery is dependent on technology under development, where evaluation of the accumulation is insufficient to clearly assess commerciality, where the development plan is not yet approved, or where regulatory or social acceptance issues may exist.</p> <p>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 the economic status.</p>
<b>Development Pending</b>	A discovered accumulation where project activities are ongoing to justify commercial development in the foreseeable future.	<p>The project is seen to have reasonable potential for eventual commercial development, to the extent that further data acquisition (e.g., drilling, seismic data) and/or evaluations are currently ongoing with a view to confirming that the project is commercially viable and providing the basis for selection of an appropriate development plan. The critical contingencies have been identified and are reasonably expected to be resolved within a reasonable time-frame. Note that disappointing appraisal/evaluation results could lead to a reclassification of the project to On Hold or Not Viable status.</p> <p>The project decision gate is the decision to undertake further data acquisition and/or studies designed to move the project to a level of technical and commercial maturity at which a decision can be made to proceed with development and production.</p>

<b>Class/Sub-Class</b>	<b>Definition</b>	<b>Guidelines</b>
<b>Development on Hold</b>	A discovered accumulation where project activities are on hold and/or where justification as a commercial development may be subject to significant delay.	<p>The project is seen to have potential for commercial development. Development may be subject to a significant time delay. Note that a change in circumstances, such that there is no longer a probable chance that a critical contingency can be removed in the foreseeable future, could lead to a reclassification of the project to Not Viable status.</p> <p>The project decision gate is the decision to either proceed with additional evaluation designed to clarify the potential for eventual commercial development or to temporarily suspend or delay further activities pending resolution of external contingencies.</p>
<b>Development Unclarified</b>	A discovered accumulation where project activities are under evaluation and where justification as a commercial development is unknown based on available information.	<p>The project is seen to have potential for eventual commercial development, but further appraisal/evaluation activities are ongoing to clarify the potential for eventual commercial development.</p> <p>This sub-class requires active appraisal or evaluation and should not be maintained without a plan for future evaluation. The sub-class should reflect the actions required to move a project toward commercial maturity and economic production.</p>
<b>Development Not Viable</b>	A discovered accumulation for which there are no current plans to develop or to acquire additional data at the time because of limited production potential.	<p>The project is not seen to have potential for eventual commercial development at the time of reporting, but the theoretically recoverable quantities are recorded so that the potential opportunity will be recognized in the event of a major change in technology or commercial conditions.</p> <p>The project decision gate is the decision not to undertake further data acquisition or studies on the project for the foreseeable future.</p>
<b>Prospective Resources</b>	Those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations.	Potential accumulations are evaluated according to the chance of geologic discovery and, assuming a discovery, the estimated quantities that would be recoverable under defined development projects. It is recognized that the development programs will be of significantly less detail and depend more heavily on analog developments in the earlier phases of exploration.
<b>Prospect</b>	A project associated with a potential accumulation that is sufficiently well defined to represent a viable drilling target.	Project activities are focused on assessing the chance of geologic discovery and, assuming discovery, the range of potential recoverable quantities under a commercial development program.
<b>Lead</b>	A project associated with a potential accumulation that is currently poorly defined and requires more data acquisition and/or evaluation to be classified as a Prospect.	Project activities are focused on acquiring additional data and/or undertaking further evaluation designed to confirm whether or not the Lead can be matured into a Prospect. Such evaluation includes the assessment of the chance of geologic discovery and, assuming discovery, the range of potential recovery under feasible development scenarios.
<b>Play</b>	A project associated with a prospective trend of potential prospects, but that requires more data acquisition and/or evaluation to define specific Leads or Prospects.	Project activities are focused on acquiring additional data and/or undertaking further evaluation designed to define specific Leads or Prospects for more detailed analysis of their chance of geologic discovery and, assuming discovery, the range of potential recovery under hypothetical development scenarios.

# PETROLEUM RESERVES STATUS DEFINITIONS and GUIDELINES

As Adapted From:

2018 PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)

Sponsored and Approved by:

SOCIETY OF PETROLEUM ENGINEERS (SPE)

WORLD PETROLEUM COUNCIL (WPC)

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)

SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)

SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS (SPWLA)

EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS (EAGE)

## **RESERVES**

Reserves status categories define the development and producing status of wells and reservoirs. The SPE-PRMS Table 2 defines the reserves status categories as follows:

### **DEVELOPED RESERVES (SPE-PRMS DEFINITIONS)**

*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**

*Developed Producing Reserves are expected quantities to be recovered from completion intervals that are open and producing at the effective date of the estimate.*

*Improved recovery reserves are considered producing only after the improved recovery project is in operation.*

#### **Developed Non-Producing**

*Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.*

#### **Shut-In**

*Shut-in Reserves are expected to be recovered from:*

- (1) completion intervals that 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**

*Behind-pipe Reserves are expected to be recovered from zones in existing wells that will require additional completion work or future re-completion before start of production with minor cost to access these reserves.*

*In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.*

**UNDEVELOPED RESERVES (SPE-PRMS DEFINITIONS)**

*Undeveloped Reserves are quantities expected to be recovered through future significant investments.*

*Undeveloped Reserves are to be produced:*

- (1) from new wells on undrilled acreage in known accumulations;*
- (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) recompleting an existing well or*
  - (b) installing production or transportation facilities for primary or improved recovery projects.*

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ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
								10.00% -	1,312,459
								12.00% -	1,180,781
								15.00% -	1,014,667
								20.00% -	802,574
								25.00% -	648,881

CONTAINS PRODUCTION BONUS PAYMENTS

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	52	2,732,274	1,275,418	27,203	2,603,018	1,215,123	23,090	53.73	2.83
2021	58	2,406,215	1,192,427	25,983	2,293,524	1,136,512	22,102	53.53	2.83
2022	67	2,758,389	1,434,990	31,139	2,706,566	1,410,444	27,264	53.33	2.83
2023	74	3,697,961	1,826,003	40,354	3,697,959	1,826,000	36,057	53.75	2.83
2024	81	4,709,292	2,152,607	46,893	4,709,288	2,152,613	41,862	54.54	2.83
2025	86	5,095,700	2,403,997	51,574	5,095,700	2,403,995	46,008	54.60	2.83
2026	89	5,189,135	2,582,384	55,925	5,189,140	2,582,386	49,967	54.24	2.83
2027	88	4,059,869	2,096,721	45,338	4,059,865	2,096,713	40,494	54.17	2.83
2028	88	3,211,325	1,698,575	36,611	3,211,327	1,698,584	32,666	54.11	2.83
2029	88	2,585,935	1,385,553	29,727	2,585,926	1,385,543	26,505	54.05	2.83
2030	87	2,111,529	1,136,584	24,283	2,111,535	1,136,597	21,626	53.99	2.83
2031	87	1,737,451	935,720	19,904	1,737,451	935,718	17,716	53.94	2.83
2032	87	1,380,440	762,309	16,236	1,343,554	741,952	14,066	53.93	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		41,675,515	20,883,288	451,170	41,344,853	20,722,180	399,423	54.08	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		41,675,515	20,883,288	451,170	41,344,853	20,722,180	399,423	54.08	2.83
Cumulative		48,175,256	0	319,799					
Ultimate		89,850,771	20,883,288	770,969					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	139,864	39,418	65,347	0	244,629	5,554	4,191	234,884
2021	122,782	36,869	62,544	0	222,195	4,304	3,976	213,915
2022	144,342	45,755	77,165	0	267,262	4,979	4,917	257,366
2023	198,783	59,235	102,033	0	360,051	7,127	6,451	346,473
2024	256,857	69,831	118,454	0	445,142	10,389	7,531	427,222
2025	278,217	77,986	130,215	0	486,418	12,167	8,417	465,834
2026	281,454	83,772	141,416	0	506,642	12,432	9,164	485,046
2027	219,906	68,018	114,593	0	402,517	8,892	7,305	386,320
2028	173,751	55,102	92,445	0	321,298	6,297	5,902	309,099
2029	139,760	44,947	75,020	0	259,727	4,835	4,798	250,094
2030	114,002	36,871	61,200	0	212,073	3,858	3,923	204,292
2031	93,719	30,355	50,132	0	174,206	3,081	3,220	167,905
2032	72,461	24,069	39,786	0	136,316	2,276	2,554	131,486
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	2,235,898	672,228	1,130,350	0	4,038,476	86,191	72,349	3,879,936
Remainder	0	0	0	0	0	0	0	0
Total Future	2,235,898	672,228	1,130,350	0	4,038,476	86,191	72,349	3,879,936

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00	%
2020	46,600	0	24,000	23,060	93,660	141,224	141,224	134,785	
2021	47,800	0	35,600	20,779	104,179	109,736	250,960	94,667	
2022	50,300	0	86,300	24,651	161,251	96,115	347,075	74,241	
2023	52,100	0	94,700	34,579	181,379	165,094	512,169	116,000	
2024	54,900	0	112,600	45,945	213,445	213,777	725,946	137,027	
2025	60,200	0	66,100	50,644	176,944	288,890	1,014,836	166,884	
2026	58,900	0	4,900	51,243	115,043	370,003	1,384,839	194,140	
2027	53,600	0	6,700	40,630	100,930	285,390	1,670,229	135,618	
2028	49,900	0	4,700	32,340	86,940	222,159	1,892,388	95,554	
2029	47,100	0	5,100	26,022	78,222	171,872	2,064,260	66,918	
2030	45,000	0	3,300	21,126	69,426	134,866	2,199,126	47,528	
2031	43,400	0	5,100	17,255	65,755	102,150	2,301,276	32,592	
2032	42,100	0	3,100	13,552	58,752	72,734	2,374,010	21,009	
2033	0	0	17,200	0	17,200	-17,200	2,356,810	-4,504	
2034	0	0	0	0	0	0	2,356,810	0	
Sub-Total	651,900	0	469,400	401,826	1,523,126	2,356,810		1,312,459	
Remainder	0	0	0	0	0	0	2,356,810	0	
Total Future	651,900	0	469,400	401,826	1,523,126	2,356,810		1,312,459	





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED AND PROBABLE

PV AND PB  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	540,154
							12.00%	—	507,296
							15.00%	—	464,354
							20.00%	—	406,212
							25.00%	—	360,637

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	48	2,632,598	1,217,607	25,670	2,507,886	1,159,935	21,794	53.76	2.83
2021	47	1,926,202	977,045	20,827	1,835,144	930,844	17,711	53.66	2.83
2022	46	1,484,289	808,111	17,395	1,484,287	808,115	15,523	53.58	2.83
2023	46	1,179,890	679,671	14,715	1,179,891	679,666	13,153	53.51	2.83
2024	45	959,047	577,665	12,577	959,042	577,670	11,242	53.46	2.83
2025	44	792,920	494,398	10,819	792,920	494,396	9,664	53.43	2.83
2026	44	664,474	425,291	9,338	664,479	425,293	8,345	53.41	2.83
2027	43	563,043	367,196	8,079	563,041	367,192	7,230	53.39	2.83
2028	43	481,454	317,977	7,021	481,453	317,982	6,278	53.38	2.83
2029	43	414,661	275,932	6,104	414,658	275,925	5,461	53.37	2.83
2030	42	359,254	239,911	5,320	359,253	239,918	4,756	53.36	2.83
2031	42	312,886	208,892	4,641	312,893	208,893	4,152	53.36	2.83
2032	42	273,770	182,313	4,056	267,048	177,834	3,546	53.35	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		12,044,488	6,772,009	146,562	11,821,995	6,663,663	128,855	53.55	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		12,044,488	6,772,009	146,562	11,821,995	6,663,663	128,855	53.55	2.83
Cumulative		48,023,795	0	319,547					
Ultimate		60,068,283	6,772,009	466,109					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	134,819	37,628	61,676	0	234,123	5,379	3,972	224,772
2021	98,475	30,197	50,126	0	178,798	3,555	3,213	172,030
2022	79,523	26,215	43,926	0	149,664	2,855	2,806	144,003
2023	63,139	22,049	37,216	0	122,404	2,254	2,370	117,780
2024	51,274	18,739	31,814	0	101,827	1,800	2,022	98,005
2025	42,366	16,038	27,356	0	85,760	1,432	1,736	82,592
2026	35,487	13,797	23,622	0	72,906	1,150	1,497	70,259
2027	30,060	11,912	20,460	0	62,432	928	1,295	60,209
2028	25,698	10,315	17,767	0	53,780	771	1,123	51,886
2029	22,130	8,951	15,455	0	46,536	664	976	44,896
2030	19,170	7,783	13,467	0	40,420	575	850	38,995
2031	16,695	6,776	11,751	0	35,222	501	741	33,980
2032	14,248	5,769	10,019	0	30,036	428	632	28,976
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	633,084	216,169	364,655	0	1,213,908	22,292	23,233	1,168,383
Remainder	0	0	0	0	0	0	0	0
Total Future	633,084	216,169	364,655	0	1,213,908	22,292	23,233	1,168,383

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00%	%
2020	44,087	0	12,026	22,067	78,180	146,592	146,592	140,020	
2021	37,946	0	6,077	16,993	61,016	111,014	257,606	95,864	
2022	27,407	0	9,027	14,313	50,747	93,256	350,862	72,848	
2023	16,963	0	7,892	11,772	36,627	81,153	432,015	57,376	
2024	12,176	0	4,361	9,842	26,379	71,626	503,641	45,848	
2025	10,068	0	4,672	8,326	23,066	59,526	563,167	34,489	
2026	8,259	0	2,010	7,104	17,373	52,886	616,053	27,743	
2027	7,939	0	2,624	6,100	16,663	43,546	659,599	20,682	
2028	8,052	0	1,861	5,264	15,177	36,709	696,308	15,781	
2029	8,052	0	2,035	4,561	14,648	30,248	726,556	11,773	
2030	8,332	0	1,442	3,963	13,737	25,258	751,814	8,898	
2031	8,230	0	2,046	3,452	13,728	20,252	772,066	6,459	
2032	8,953	0	1,245	2,942	13,140	15,836	787,902	4,574	
2033	0	0	8,400	0	8,400	-8,400	779,502	-2,201	
2034	0	0	0	0	0	0	779,502	0	
Sub-Total	206,464	0	65,718	116,699	388,881	779,502		540,154	
Remainder	0	0	0	0	0	0	779,502	0	
Total Future	206,464	0	65,718	116,699	388,881	779,502		540,154	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED AND PROBABLE

PV AND PB  
NON PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 56,609
								12.00% - 51,160
								15.00% - 44,135
								20.00% - 34,856
								25.00% - 27,849

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	47,479	23,970	338	45,231	22,835	266	53.03	2.83
2021	2	51,529	27,027	380	49,092	25,749	302	53.03	2.83
2022	7	155,399	109,240	2,323	150,953	105,887	2,002	53.03	2.83
2023	7	229,282	174,216	3,846	229,282	174,217	3,449	53.03	2.83
2024	7	179,065	145,000	3,212	179,064	145,000	2,883	53.03	2.83
2025	7	140,240	120,978	2,688	140,241	120,978	2,412	53.03	2.83
2026	7	110,079	101,115	2,252	110,078	101,115	2,021	53.03	2.83
2027	7	86,556	84,632	1,888	86,556	84,631	1,696	53.03	2.83
2028	7	68,146	70,899	1,586	68,146	70,899	1,422	53.03	2.83
2029	7	53,678	59,424	1,329	53,677	59,425	1,193	53.03	2.83
2030	7	42,289	49,828	1,114	42,290	49,828	1,002	53.03	2.83
2031	7	33,334	41,797	937	33,334	41,796	843	53.03	2.83
2032	7	26,280	35,067	786	25,589	34,145	688	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,223,356	1,043,193	22,679	1,213,533	1,036,505	20,179	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,223,356	1,043,193	22,679	1,213,533	1,036,505	20,179	53.03	2.83
Cumulative		151,461	0	252					
Ultimate		1,374,817	1,043,193	22,931					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,399	741	755	0	3,895	96	60	3,739
2021	2,603	835	852	0	4,290	94	67	4,129
2022	8,005	3,435	5,670	0	17,110	269	365	16,476
2023	12,159	5,652	9,759	0	27,570	436	616	26,518
2024	9,496	4,703	8,156	0	22,355	373	514	21,468
2025	7,437	3,925	6,827	0	18,189	304	434	17,451
2026	5,837	3,280	5,721	0	14,838	235	365	14,238
2027	4,590	2,746	4,797	0	12,133	171	301	11,661
2028	3,614	2,300	4,025	0	9,939	124	253	9,562
2029	2,846	1,927	3,379	0	8,152	94	213	7,845
2030	2,243	1,617	2,836	0	6,696	74	178	6,444
2031	1,768	1,356	2,382	0	5,506	57	149	5,300
2032	1,357	1,107	1,947	0	4,411	42	122	4,247
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	64,354	33,624	57,106	0	155,084	2,369	3,637	149,078
Remainder	0	0	0	0	0	0	0	0
Total Future	64,354	33,624	57,106	0	155,084	2,369	3,637	149,078

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	783	0	2,213	318	3,314	425	425	346
2021	951	0	337	353	1,641	2,488	2,913	2,153
2022	3,468	0	3,112	1,631	8,211	8,265	11,178	6,279
2023	4,208	0	1,133	2,695	8,036	18,482	29,660	13,066
2024	2,838	0	644	2,218	5,700	15,768	45,428	10,095
2025	2,285	0	634	1,831	4,750	12,701	58,129	7,362
2026	1,746	0	246	1,514	3,506	10,732	68,861	5,632
2027	1,627	0	343	1,254	3,224	8,437	77,298	4,008
2028	1,558	0	233	1,040	2,831	6,731	84,029	2,894
2029	1,489	0	245	864	2,598	5,247	89,276	2,043
2030	1,438	0	144	718	2,300	4,144	93,420	1,461
2031	1,380	0	228	598	2,206	3,094	96,514	988
2032	1,383	0	133	484	2,000	2,247	98,761	649
2033	0	0	1,400	0	1,400	-1,400	97,361	-367
2034	0	0	0	0	0	0	97,361	0
Sub-Total	25,154	0	11,045	15,518	51,717	97,361		56,609
Remainder	0	0	0	0	0	0	97,361	0
Total Future	25,154	0	11,045	15,518	51,717	97,361		56,609



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED AND PROBABLE

PV AND PB  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	–	715,695
							12.00%	–	622,325
							15.00%	–	506,178
							20.00%	–	361,506
							25.00%	–	260,395

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	52,197	33,841	1,195	49,901	32,353	1,030	53.03	2.83
2021	9	428,484	188,355	4,776	409,288	179,919	4,089	53.03	2.83
2022	14	1,118,701	517,639	11,421	1,071,326	496,442	9,739	53.03	2.83
2023	21	2,288,789	972,116	21,793	2,288,786	972,117	19,455	53.95	2.83
2024	29	3,571,180	1,429,942	31,104	3,571,182	1,429,943	27,737	54.91	2.83
2025	35	4,162,540	1,788,621	38,067	4,162,539	1,788,621	33,932	54.87	2.83
2026	38	4,414,582	2,055,978	44,335	4,414,583	2,055,978	39,601	54.39	2.83
2027	38	3,410,270	1,644,893	35,371	3,410,268	1,644,890	31,568	54.32	2.83
2028	38	2,661,725	1,309,699	28,004	2,661,728	1,309,703	24,966	54.26	2.83
2029	38	2,117,596	1,050,197	22,294	2,117,591	1,050,193	19,851	54.20	2.83
2030	38	1,709,986	846,845	17,849	1,709,992	846,851	15,868	54.15	2.83
2031	38	1,391,231	685,031	14,326	1,391,224	685,029	12,721	54.09	2.83
2032	38	1,080,390	544,929	11,394	1,050,917	529,973	9,832	54.10	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		28,407,671	13,068,086	281,929	28,309,325	13,022,012	250,389	54.34	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		28,407,671	13,068,086	281,929	28,309,325	13,022,012	250,389	54.34	2.83
Cumulative		0	0	0					
Ultimate		28,407,671	13,068,086	281,929					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,646	1,050	2,915	0	6,611	79	159	6,373
2021	21,705	5,836	11,567	0	39,108	655	696	37,757
2022	56,812	16,105	27,569	0	100,486	1,856	1,747	96,883
2023	123,486	31,535	55,058	0	210,079	4,437	3,463	202,179
2024	196,088	46,387	78,483	0	320,958	8,215	4,995	307,748
2025	228,414	58,023	96,033	0	382,470	10,431	6,248	365,791
2026	240,129	66,696	112,073	0	418,898	11,048	7,303	400,547
2027	185,256	53,360	89,336	0	327,952	7,791	5,708	314,453
2028	144,438	42,487	70,653	0	257,578	5,402	4,525	247,651
2029	114,784	34,069	56,186	0	205,039	4,077	3,610	197,352
2030	92,590	27,471	44,897	0	164,958	3,209	2,895	158,854
2031	75,256	22,223	36,000	0	133,479	2,524	2,329	128,626
2032	56,856	17,192	27,819	0	101,867	1,807	1,800	98,260
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,538,460	422,434	708,589	0	2,669,483	61,531	45,478	2,562,474
Remainder	0	0	0	0	0	0	0	0
Total Future	1,538,460	422,434	708,589	0	2,669,483	61,531	45,478	2,562,474

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00	%
2020	1,731	0	9,761	675	12,167	-5,794	-5,794	-5,581	
2021	8,903	0	29,186	3,432	41,521	-3,764	-9,558	-3,351	
2022	19,424	0	74,162	8,708	102,294	-5,411	-14,969	-4,886	
2023	30,930	0	85,674	20,112	136,716	65,463	50,494	45,559	
2024	39,886	0	107,595	33,885	181,366	126,382	176,876	81,084	
2025	47,846	0	60,794	40,487	149,127	216,664	393,540	125,033	
2026	48,895	0	2,644	42,626	94,165	306,382	699,922	160,765	
2027	44,034	0	3,734	33,276	81,044	233,409	933,331	110,927	
2028	40,290	0	2,605	26,034	68,929	178,722	1,112,053	76,880	
2029	37,559	0	2,820	20,598	60,977	136,375	1,248,428	53,101	
2030	35,230	0	1,714	16,445	53,389	105,465	1,353,893	37,170	
2031	33,790	0	2,826	13,205	49,821	78,805	1,432,698	25,145	
2032	31,764	0	1,723	10,126	43,613	54,647	1,487,345	15,786	
2033	0	0	7,400	0	7,400	-7,400	1,479,945	-1,937	
2034	0	0	0	0	0	0	1,479,945	0	
Sub-Total	420,282	0	392,638	269,609	1,082,529	1,479,945		715,695	
Remainder	0	0	0	0	0	0	1,479,945	0	
Total Future	420,282	0	392,638	269,609	1,082,529	1,479,945		715,695	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED RESERVES

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
								10.00% -	641,033
								12.00% -	597,004
								15.00% -	539,844
								20.00% -	463,315
								25.00% -	404,237

CONTAINS PRODUCTION BONUS PAYMENT

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	50	2,680,077	1,241,577	26,008	2,553,117	1,182,770	22,060	53.75	2.83
2021	50	1,988,693	1,007,185	21,251	1,894,680	959,559	18,048	53.64	2.83
2022	53	1,879,906	1,008,474	21,324	1,876,870	1,007,615	18,974	53.46	2.83
2023	54	1,801,356	974,871	20,386	1,801,355	974,867	18,164	53.85	2.83
2024	53	1,572,755	846,544	17,515	1,572,752	846,548	15,589	54.21	2.83
2025	52	1,247,127	706,092	14,761	1,247,126	706,091	13,133	53.93	2.83
2026	52	1,015,225	595,610	12,528	1,015,230	595,611	11,151	53.72	2.83
2027	51	844,204	506,674	10,695	844,202	506,670	9,527	53.57	2.83
2028	51	713,914	433,845	9,188	713,912	433,850	8,177	53.46	2.83
2029	51	611,603	373,301	7,911	611,600	373,295	7,043	53.39	2.83
2030	50	529,279	322,520	6,836	529,279	322,528	6,082	53.34	2.83
2031	50	461,798	279,540	5,926	461,804	279,540	5,273	53.30	2.83
2032	50	405,606	243,150	5,146	395,647	237,178	4,472	53.28	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		15,751,543	8,539,383	179,475	15,517,574	8,426,122	157,693	53.69	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		15,751,543	8,539,383	179,475	15,517,574	8,426,122	157,693	53.69	2.83
Cumulative		48,175,256	0	319,799					
Ultimate		63,926,799	8,539,383	499,274					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	137,218	38,369	62,432	0	238,019	5,475	4,032	228,512
2021	101,632	31,128	51,075	0	183,835	3,669	3,288	176,878
2022	100,342	32,687	53,698	0	186,727	3,602	3,456	179,669
2023	96,996	31,625	51,395	0	180,016	3,463	3,320	173,233
2024	85,267	27,462	44,114	0	156,843	2,993	2,863	150,987
2025	67,258	22,905	37,172	0	127,335	2,273	2,404	122,658
2026	54,536	19,322	31,567	0	105,425	1,767	2,035	101,623
2027	45,220	16,437	26,962	0	88,619	1,397	1,736	85,486
2028	38,165	14,073	23,140	0	75,378	1,145	1,489	72,744
2029	32,651	12,110	19,931	0	64,692	980	1,281	62,431
2030	28,230	10,463	17,220	0	55,913	847	1,107	53,959
2031	24,616	9,068	14,919	0	48,603	738	960	46,905
2032	21,080	7,694	12,642	0	41,416	633	813	39,970
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	833,211	273,343	446,267	0	1,552,821	28,982	28,784	1,495,055
Remainder	0	0	0	0	0	0	0	0
Total Future	833,211	273,343	446,267	0	1,552,821	28,982	28,784	1,495,055

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	44,869	0	13,674	22,385	80,928	147,584	147,584	140,903	
2021	39,056	0	12,527	17,399	68,982	107,896	255,480	93,326	
2022	34,051	0	31,205	17,532	82,788	96,881	352,361	75,011	
2023	25,077	0	20,028	17,632	62,737	110,496	462,857	77,867	
2024	18,861	0	6,732	15,933	41,526	109,461	572,318	70,087	
2025	15,064	0	6,875	12,684	34,623	88,035	660,353	51,023	
2026	12,048	0	2,837	10,349	25,234	76,389	736,742	40,079	
2027	11,381	0	3,759	8,608	23,748	61,738	798,480	29,326	
2028	11,411	0	2,637	7,262	21,310	51,434	849,914	22,114	
2029	11,325	0	2,861	6,192	20,378	42,053	891,967	16,367	
2030	11,671	0	1,939	5,323	18,933	35,026	926,993	12,340	
2031	11,507	0	2,861	4,603	18,971	27,934	954,927	8,910	
2032	12,515	0	1,739	3,904	18,158	21,812	976,739	6,299	
2033	0	0	10,000	0	10,000	-10,000	966,739	-2,619	
2034	0	0	0	0	0	0	966,739	0	
Sub-Total	258,836	0	119,674	149,806	528,316	966,739		641,033	
Remainder	0	0	0	0	0	0	966,739	0	
Total Future	258,836	0	119,674	149,806	528,316	966,739		641,033	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	
								COMPOUNDED
								MONTHLY
								10.00% -
								12.00% -
								15.00% -
								20.00% -
								25.00% -
								540,154
								507,296
								464,354
								406,212
								360,637

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	48	2,632,598	1,217,607	25,670	2,507,886	1,159,935	21,794	53.76	2.83
2021	47	1,926,202	977,045	20,827	1,835,144	930,844	17,711	53.66	2.83
2022	46	1,484,289	808,111	17,395	1,484,287	808,115	15,523	53.58	2.83
2023	46	1,179,890	679,671	14,715	1,179,891	679,666	13,153	53.51	2.83
2024	45	959,047	577,665	12,577	959,042	577,670	11,242	53.46	2.83
2025	44	792,920	494,398	10,819	792,920	494,396	9,664	53.43	2.83
2026	44	664,474	425,291	9,338	664,479	425,293	8,345	53.41	2.83
2027	43	563,043	367,196	8,079	563,041	367,192	7,230	53.39	2.83
2028	43	481,454	317,977	7,021	481,453	317,982	6,278	53.38	2.83
2029	43	414,661	275,932	6,104	414,658	275,925	5,461	53.37	2.83
2030	42	359,254	239,911	5,320	359,253	239,918	4,756	53.36	2.83
2031	42	312,886	208,892	4,641	312,893	208,893	4,152	53.36	2.83
2032	42	273,770	182,313	4,056	267,048	177,834	3,546	53.35	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		12,044,488	6,772,009	146,562	11,821,995	6,663,663	128,855	53.55	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		12,044,488	6,772,009	146,562	11,821,995	6,663,663	128,855	53.55	2.83
Cumulative		48,023,795	0	319,547					
Ultimate		60,068,283	6,772,009	466,109					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	134,819	37,628	61,676	0	234,123	5,379	3,972	224,772
2021	98,475	30,197	50,126	0	178,798	3,555	3,213	172,030
2022	79,523	26,215	43,926	0	149,664	2,855	2,806	144,003
2023	63,139	22,049	37,216	0	122,404	2,254	2,370	117,780
2024	51,274	18,739	31,814	0	101,827	1,800	2,022	98,005
2025	42,366	16,038	27,356	0	85,760	1,432	1,736	82,592
2026	35,487	13,797	23,622	0	72,906	1,150	1,497	70,259
2027	30,060	11,912	20,460	0	62,432	928	1,295	60,209
2028	25,698	10,315	17,767	0	53,780	771	1,123	51,886
2029	22,130	8,951	15,455	0	46,536	664	976	44,896
2030	19,170	7,783	13,467	0	40,420	575	850	38,995
2031	16,695	6,776	11,751	0	35,222	501	741	33,980
2032	14,248	5,769	10,019	0	30,036	428	632	28,976
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	633,084	216,169	364,655	0	1,213,908	22,292	23,233	1,168,383
Remainder	0	0	0	0	0	0	0	0
Total Future	633,084	216,169	364,655	0	1,213,908	22,292	23,233	1,168,383

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	44,087	0	12,026	22,067	78,180	146,592	146,592	140,020	
2021	37,946	0	6,077	16,993	61,016	111,014	257,606	95,864	
2022	27,407	0	9,027	14,313	50,747	93,256	350,862	72,848	
2023	16,963	0	7,892	11,772	36,627	81,153	432,015	57,376	
2024	12,176	0	4,361	9,842	26,379	71,626	503,641	45,848	
2025	10,068	0	4,672	8,326	23,066	59,526	563,167	34,489	
2026	8,259	0	2,010	7,104	17,373	52,886	616,053	27,743	
2027	7,939	0	2,624	6,100	16,663	43,546	659,599	20,682	
2028	8,052	0	1,861	5,264	15,177	36,709	696,308	15,781	
2029	8,052	0	2,035	4,561	14,648	30,248	726,556	11,773	
2030	8,332	0	1,442	3,963	13,737	25,258	751,814	8,898	
2031	8,230	0	2,046	3,452	13,728	20,252	772,066	6,459	
2032	8,953	0	1,245	2,942	13,140	15,836	787,902	4,574	
2033	0	0	8,400	0	8,400	-8,400	779,502	-2,201	
2034	0	0	0	0	0	0	779,502	0	
Sub-Total	206,464	0	65,718	116,699	388,881	779,502		540,154	
Remainder	0	0	0	0	0	0	779,502	0	
Total Future	206,464	0	65,718	116,699	388,881	779,502		540,154	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
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BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED NON PRODUCING

PROVED  
NON PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	27,441
							12.00%	24,988
							15.00%	21,810
							20.00%	17,582
							25.00%	14,357

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	47,479	23,970	338	45,231	22,835	266	53.03	2.83
2021	2	51,529	27,027	380	49,092	25,749	302	53.03	2.83
2022	4	75,322	48,885	952	75,323	48,884	836	53.03	2.83
2023	4	108,251	78,520	1,670	108,250	78,521	1,492	53.03	2.83
2024	4	83,811	64,530	1,384	83,812	64,529	1,236	53.03	2.83
2025	4	65,278	53,310	1,150	65,277	53,311	1,029	53.03	2.83
2026	4	51,082	44,214	958	51,082	44,213	856	53.03	2.83
2027	4	40,126	36,782	801	40,126	36,782	717	53.03	2.83
2028	4	31,606	30,663	671	31,606	30,663	599	53.03	2.83
2029	4	24,919	25,590	560	24,919	25,591	502	53.03	2.83
2030	4	19,659	21,377	468	19,658	21,377	420	53.03	2.83
2031	4	15,522	17,871	393	15,523	17,871	353	53.03	2.83
2032	4	12,262	14,950	329	11,960	14,584	288	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		626,846	487,689	10,054	621,859	484,910	8,896	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		626,846	487,689	10,054	621,859	484,910	8,896	53.03	2.83
Cumulative		151,461	0	252					
Ultimate		778,307	487,689	10,306					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	\$M
2020	2,399	741	755	0	3,895	96	60	3,739
2021	2,603	835	852	0	4,290	94	67	4,129
2022	3,994	1,586	2,370	0	7,950	143	159	7,648
2023	5,741	2,547	4,219	0	12,507	205	270	12,032
2024	4,444	2,093	3,499	0	10,036	156	224	9,656
2025	3,462	1,730	2,910	0	8,102	117	185	7,800
2026	2,709	1,434	2,427	0	6,570	88	155	6,327
2027	2,128	1,193	2,027	0	5,348	66	129	5,153
2028	1,676	995	1,696	0	4,367	50	107	4,210
2029	1,321	830	1,420	0	3,571	39	90	3,442
2030	1,043	694	1,190	0	2,927	32	76	2,819
2031	823	579	996	0	2,398	24	63	2,311
2032	634	473	815	0	1,922	19	51	1,852
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	32,977	15,730	25,176	0	73,883	1,129	1,636	71,118
Remainder	0	0	0	0	0	0	0	0
Total Future	32,977	15,730	25,176	0	73,883	1,129	1,636	71,118

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	783	0	1,648	318	2,749	990	990	884
2021	951	0	150	353	1,454	2,675	3,665	2,312
2022	1,435	0	1,351	732	3,518	4,130	7,795	3,177
2023	1,787	0	808	1,202	3,797	8,235	16,030	5,822
2024	1,236	0	442	979	2,657	6,999	23,029	4,483
2025	979	0	433	802	2,214	5,586	28,615	3,238
2026	763	0	167	659	1,589	4,738	33,353	2,486
2027	697	0	230	543	1,470	3,683	37,036	1,750
2028	670	0	155	449	1,274	2,936	39,972	1,263
2029	631	0	159	372	1,162	2,280	42,252	888
2030	616	0	91	308	1,015	1,804	44,056	636
2031	572	0	142	255	969	1,342	45,398	428
2032	583	0	81	207	871	981	46,379	283
2033	0	0	800	0	800	-800	45,579	-209
2034	0	0	0	0	0	0	45,579	0
Sub-Total	11,703	0	6,657	7,179	25,539	45,579		27,441
Remainder	0	0	0	0	0	0	45,579	0
Total Future	11,703	0	6,657	7,179	25,539	45,579		27,441



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROVED UNDEVELOPED

PROVED  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 73,438
								12.00% - 64,720
								15.00% - 53,680
								20.00% - 39,522
								25.00% - 29,243

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	10,962	3,113	44	10,444	2,966	35	53.03	2.83
2022	3	320,295	151,478	2,977	317,260	150,616	2,615	53.03	2.83
2023	4	513,215	216,680	4,001	513,214	216,680	3,519	54.79	2.83
2024	4	529,897	204,349	3,554	529,898	204,349	3,111	55.76	2.83
2025	4	388,929	158,384	2,792	388,929	158,384	2,440	55.10	2.83
2026	4	299,669	126,105	2,232	299,669	126,105	1,950	54.53	2.83
2027	4	241,035	102,696	1,815	241,035	102,696	1,580	54.07	2.83
2028	4	200,854	85,205	1,496	200,853	85,205	1,300	53.72	2.83
2029	4	172,023	71,779	1,247	172,023	71,779	1,080	53.48	2.83
2030	4	150,366	61,232	1,048	150,368	61,233	906	53.32	2.83
2031	4	133,390	52,777	892	133,388	52,776	768	53.21	2.83
2032	4	119,574	45,887	761	116,639	44,760	638	53.14	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		3,080,209	1,279,685	22,859	3,073,720	1,277,549	19,942	54.38	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		3,080,209	1,279,685	22,859	3,073,720	1,277,549	19,942	54.38	2.83
Cumulative		0	0	0					
Ultimate		3,080,209	1,279,685	22,859					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	554	96	98	0	748	20	8	720
2022	16,824	4,886	7,402	0	29,112	604	491	28,017
2023	28,118	7,029	9,960	0	45,107	1,004	680	43,423
2024	29,547	6,629	8,801	0	44,977	1,037	617	43,323
2025	21,431	5,138	6,907	0	33,476	724	482	32,270
2026	16,340	4,091	5,517	0	25,948	530	384	25,034
2027	13,032	3,332	4,475	0	20,839	402	312	20,125
2028	10,791	2,764	3,677	0	17,232	324	258	16,650
2029	9,200	2,328	3,055	0	14,583	276	215	14,092
2030	8,017	1,987	2,565	0	12,569	241	182	12,146
2031	7,098	1,712	2,171	0	10,981	213	156	10,612
2032	6,198	1,452	1,808	0	9,458	185	130	9,143
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	167,150	41,444	56,436	0	265,030	5,560	3,915	255,555
Remainder	0	0	0	0	0	0	0	0
Total Future	167,150	41,444	56,436	0	265,030	5,560	3,915	255,555

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	159	0	6,300	53	6,512	-5,792	-5,792	-4,852
2022	5,209	0	20,828	2,486	28,523	-506	-6,298	-1,013
2023	6,325	0	11,326	4,659	22,310	21,113	14,815	14,668
2024	5,450	0	1,930	5,111	12,491	30,832	45,647	19,758
2025	4,018	0	1,770	3,556	9,344	22,926	68,573	13,296
2026	3,024	0	660	2,588	6,272	18,762	87,335	9,849
2027	2,745	0	905	1,964	5,614	14,511	101,846	6,893
2028	2,690	0	621	1,548	4,859	11,791	113,637	5,071
2029	2,642	0	667	1,260	4,569	9,523	123,160	3,707
2030	2,723	0	406	1,052	4,181	7,965	131,125	2,806
2031	2,705	0	672	896	4,273	6,339	137,464	2,022
2032	2,978	0	414	755	4,147	4,996	142,460	1,442
2033	0	0	800	0	800	-800	141,660	-209
2034	0	0	0	0	0	0	141,660	0
Sub-Total	40,668	0	47,299	25,928	113,895	141,660		73,438
Remainder	0	0	0	0	0	0	141,660	0
Total Future	40,668	0	47,299	25,928	113,895	141,660		73,438



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	671,426
							12.00%	—	583,777
							15.00%	—	474,823
							20.00%	—	339,259
							25.00%	—	244,644

CONTAINS PRODUCTION BONUS PAYMENTS

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	52,197	33,841	1,195	49,901	32,353	1,030	53.03	2.83
2021	8	417,522	185,242	4,732	398,844	176,953	4,054	53.03	2.83
2022	14	878,483	426,516	9,815	829,696	402,829	8,290	53.03	2.83
2023	20	1,896,605	851,132	19,968	1,896,604	851,133	17,893	53.67	2.83
2024	28	3,136,537	1,306,063	29,378	3,136,536	1,306,065	26,273	54.71	2.83
2025	34	3,848,573	1,697,905	36,813	3,848,574	1,697,904	32,875	54.81	2.83
2026	37	4,173,910	1,986,774	43,397	4,173,910	1,986,775	38,816	54.37	2.83
2027	37	3,215,665	1,590,047	34,643	3,215,663	1,590,043	30,967	54.32	2.83
2028	37	2,497,411	1,264,730	27,423	2,497,415	1,264,734	24,489	54.29	2.83
2029	37	1,974,332	1,012,252	21,816	1,974,326	1,012,248	19,462	54.25	2.83
2030	37	1,582,250	814,064	17,447	1,582,256	814,069	15,544	54.21	2.83
2031	37	1,275,653	656,180	13,978	1,275,647	656,178	12,443	54.17	2.83
2032	37	974,834	519,159	11,090	947,907	504,774	9,594	54.20	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		25,923,972	12,343,905	271,695	25,827,279	12,296,058	241,730	54.31	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		25,923,972	12,343,905	271,695	25,827,279	12,296,058	241,730	54.31	2.83
Cumulative		0	0	0					
Ultimate		25,923,972	12,343,905	271,695					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,646	1,050	2,915	0	6,611	79	159	6,373
2021	21,151	5,740	11,469	0	38,360	635	688	37,037
2022	43,999	13,068	23,467	0	80,534	1,377	1,461	77,696
2023	101,786	27,610	50,638	0	180,034	3,664	3,130	173,240
2024	171,592	42,369	74,339	0	288,300	7,396	4,669	276,235
2025	210,959	55,080	93,043	0	359,082	9,894	6,013	343,175
2026	226,917	64,451	109,850	0	401,218	10,665	7,129	383,424
2027	174,686	51,581	87,631	0	313,898	7,494	5,569	300,835
2028	135,585	41,028	69,305	0	245,918	5,152	4,413	236,353
2029	107,109	32,837	55,089	0	195,035	3,856	3,517	187,662
2030	85,773	26,409	43,980	0	156,162	3,011	2,816	150,335
2031	69,103	21,286	35,213	0	125,602	2,342	2,260	121,000
2032	51,381	16,375	27,144	0	94,900	1,645	1,740	91,515
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,402,687	398,884	684,083	0	2,485,654	57,210	43,564	2,384,880
Remainder	0	0	0	0	0	0	0	0
Total Future	1,402,687	398,884	684,083	0	2,485,654	57,210	43,564	2,384,880

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	1,731	0	10,326	675	12,732	-6,359	-6,359	-6,118
2021	8,744	0	23,073	3,379	35,196	1,841	-4,518	1,341
2022	16,249	0	55,095	7,120	78,464	-768	-5,286	-770
2023	27,023	0	74,673	16,947	118,643	54,597	49,311	38,133
2024	36,039	0	105,868	30,012	171,919	104,316	153,627	66,939
2025	45,136	0	59,224	37,961	142,321	200,854	354,481	115,862
2026	46,853	0	2,063	40,893	89,809	293,615	648,096	154,061
2027	42,218	0	2,941	32,023	77,182	223,653	871,749	106,292
2028	38,489	0	2,064	25,077	65,630	170,723	1,042,472	73,440
2029	35,775	0	2,238	19,830	57,843	129,819	1,172,291	50,550
2030	33,329	0	1,361	15,804	50,494	99,841	1,272,132	35,189
2031	31,893	0	2,239	12,651	46,783	74,217	1,346,349	23,681
2032	29,585	0	1,361	9,647	40,593	50,922	1,397,271	14,710
2033	0	0	7,200	0	7,200	-7,200	1,390,071	-1,884
2034	0	0	0	0	0	0	1,390,071	0
Sub-Total	393,064	0	349,726	252,019	994,809	1,390,071		671,426
Remainder	0	0	0	0	0	0	1,390,071	0
Total Future	393,064	0	349,726	252,019	994,809	1,390,071		671,426





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROBABLE PRODUCING

PROBABLE  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROBABLE NON PRODUCING

PROBABLE  
NON PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 29,168
								12.00% - 26,173
								15.00% - 22,325
								20.00% - 17,274
								25.00% - 13,492

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	3	80,077	60,355	1,371	75,630	57,003	1,166	53.03	2.83
2023	3	121,031	95,696	2,176	121,032	95,696	1,957	53.03	2.83
2024	3	95,254	80,470	1,828	95,252	80,471	1,647	53.03	2.83
2025	3	74,962	67,668	1,538	74,964	67,667	1,383	53.03	2.83
2026	3	58,997	56,901	1,294	58,996	56,902	1,165	53.03	2.83
2027	3	46,430	47,850	1,087	46,430	47,849	979	53.03	2.83
2028	3	36,540	40,236	915	36,540	40,236	823	53.03	2.83
2029	3	28,759	33,834	769	28,758	33,834	691	53.03	2.83
2030	3	22,630	28,451	646	22,632	28,451	582	53.03	2.83
2031	3	17,812	23,926	544	17,811	23,925	490	53.03	2.83
2032	3	14,018	20,117	457	13,629	19,561	400	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		596,510	555,504	12,625	591,674	551,595	11,283	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		596,510	555,504	12,625	591,674	551,595	11,283	53.03	2.83
Cumulative		0	0	0					
Ultimate		596,510	555,504	12,625					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	4,011	1,849	3,300	0	9,160	126	206	8,828
2023	6,418	3,105	5,539	0	15,062	231	346	14,485
2024	5,051	2,610	4,658	0	12,319	217	290	11,812
2025	3,976	2,195	3,917	0	10,088	187	249	9,652
2026	3,128	1,846	3,294	0	8,268	147	210	7,911
2027	2,462	1,552	2,770	0	6,784	105	173	6,506
2028	1,938	1,306	2,329	0	5,573	74	145	5,354
2029	1,525	1,097	1,959	0	4,581	55	122	4,404
2030	1,200	923	1,647	0	3,770	42	103	3,625
2031	945	776	1,385	0	3,106	32	87	2,987
2032	722	635	1,132	0	2,489	23	70	2,396
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	31,376	17,894	31,930	0	81,200	1,239	2,001	77,960
Remainder	0	0	0	0	0	0	0	0
Total Future	31,376	17,894	31,930	0	81,200	1,239	2,001	77,960

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	0	0	565	0	565	-565	-565	-537
2021	0	0	187	0	187	-187	-752	-161
2022	2,033	0	1,761	898	4,692	4,136	3,384	3,104
2023	2,420	0	325	1,494	4,239	10,246	13,630	7,243
2024	1,603	0	202	1,239	3,044	8,768	22,398	5,612
2025	1,306	0	200	1,029	2,535	7,117	29,515	4,124
2026	983	0	80	855	1,918	5,993	35,508	3,146
2027	929	0	112	711	1,752	4,754	40,262	2,257
2028	889	0	80	591	1,560	3,794	44,056	1,632
2029	858	0	85	492	1,435	2,969	47,025	1,155
2030	822	0	53	410	1,285	2,340	49,365	825
2031	808	0	86	342	1,236	1,751	51,116	559
2032	799	0	52	277	1,128	1,268	52,384	367
2033	0	0	600	0	600	-600	51,784	-158
2034	0	0	0	0	0	0	51,784	0
Sub-Total	13,450	0	4,388	8,338	26,176	51,784		29,168
Remainder	0	0	0	0	0	0	51,784	0
Total Future	13,450	0	4,388	8,338	26,176	51,784		29,168



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
CHINAREVSKOYE FIELD  
TOTAL PROBABLE UNDEVELOPED

PROBABLE  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	-	642,257
							12.00%	-	557,604
							15.00%	-	452,498
							20.00%	-	321,985
							25.00%	-	231,152

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	52,197	33,841	1,195	49,901	32,353	1,030	53.03	2.83
2021	8	417,522	185,242	4,732	398,844	176,953	4,054	53.03	2.83
2022	11	798,406	366,161	8,444	754,066	345,826	7,124	53.03	2.83
2023	17	1,775,574	755,436	17,792	1,775,572	755,437	15,936	53.71	2.83
2024	25	3,041,283	1,225,593	27,550	3,041,284	1,225,594	24,626	54.76	2.83
2025	31	3,773,611	1,630,237	35,275	3,773,610	1,630,237	31,492	54.85	2.83
2026	34	4,114,913	1,929,873	42,103	4,114,914	1,929,873	37,651	54.38	2.83
2027	34	3,169,235	1,542,197	33,556	3,169,233	1,542,194	29,988	54.34	2.83
2028	34	2,460,871	1,224,494	26,508	2,460,875	1,224,498	23,666	54.31	2.83
2029	34	1,945,573	978,418	21,047	1,945,568	978,414	18,771	54.27	2.83
2030	34	1,559,620	785,613	16,801	1,559,624	785,618	14,962	54.23	2.83
2031	34	1,257,841	632,254	13,434	1,257,836	632,253	11,953	54.19	2.83
2032	34	960,816	499,042	10,633	934,278	485,213	9,194	54.22	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		25,327,462	11,788,401	259,070	25,235,605	11,744,463	230,447	54.34	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		25,327,462	11,788,401	259,070	25,235,605	11,744,463	230,447	54.34	2.83
Cumulative		0	0	0					
Ultimate		25,327,462	11,788,401	259,070					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,646	1,050	2,915	0	6,611	79	159	6,373
2021	21,151	5,740	11,469	0	38,360	635	688	37,037
2022	39,988	11,218	20,167	0	71,373	1,252	1,255	68,866
2023	95,368	24,507	45,098	0	164,973	3,433	2,785	158,755
2024	166,541	39,758	69,682	0	275,981	7,178	4,377	264,426
2025	206,983	52,885	89,126	0	348,994	9,707	5,766	333,521
2026	223,789	62,605	106,556	0	392,950	10,518	6,918	375,514
2027	172,224	50,029	84,861	0	307,114	7,389	5,396	294,329
2028	133,647	39,723	66,976	0	240,346	5,078	4,268	231,000
2029	105,584	31,739	53,131	0	190,454	3,801	3,395	183,258
2030	84,572	25,486	42,332	0	152,390	2,969	2,713	146,708
2031	68,159	20,510	33,829	0	122,498	2,310	2,173	118,015
2032	50,658	15,740	26,011	0	92,409	1,621	1,670	89,118
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,371,310	380,990	652,153	0	2,404,453	55,970	41,563	2,306,920
Remainder	0	0	0	0	0	0	0	0
Total Future	1,371,310	380,990	652,153	0	2,404,453	55,970	41,563	2,306,920

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	%
						Annual	Cumulative	@ 10.00	%
2020	1,731	0	9,761	675	12,167	-5,794	-5,794	-5,581	
2021	8,744	0	22,886	3,379	35,009	2,028	-3,766	1,501	
2022	14,216	0	53,334	6,222	73,772	-4,906	-8,672	-3,873	
2023	24,603	0	74,348	15,453	114,404	44,351	35,679	30,891	
2024	34,437	0	105,666	28,774	168,877	95,549	131,228	61,326	
2025	43,829	0	59,023	36,931	139,783	193,738	324,966	111,738	
2026	45,870	0	1,984	40,038	87,892	287,622	612,588	150,915	
2027	41,289	0	2,829	31,312	75,430	218,899	831,487	104,034	
2028	37,600	0	1,984	24,486	64,070	166,930	998,417	71,809	
2029	34,917	0	2,153	19,338	56,408	126,850	1,125,267	49,395	
2030	32,507	0	1,309	15,393	49,209	97,499	1,222,766	34,363	
2031	31,086	0	2,153	12,310	45,549	72,466	1,295,232	23,123	
2032	28,785	0	1,308	9,370	39,463	49,655	1,344,887	14,344	
2033	0	0	6,600	0	6,600	-6,600	1,338,287	-1,728	
2034	0	0	0	0	0	0	1,338,287	0	
Sub-Total	379,614	0	345,338	243,681	968,633	1,338,287		642,257	
Remainder	0	0	0	0	0	0	1,338,287	0	
Total Future	379,614	0	345,338	243,681	968,633	1,338,287		642,257	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	410,849
							12.00%	372,340
							15.00%	323,978
							20.00%	262,443
							25.00%	217,785

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	20	999,574	233,845	3,294	952,221	222,774	2,604	53.03	2.83
2021	22	960,518	223,284	3,143	915,559	212,805	2,487	53.03	2.83
2022	25	1,144,113	273,376	3,856	1,122,816	268,479	3,138	53.03	2.83
2023	25	1,237,070	297,777	4,187	1,237,068	297,778	3,483	53.03	2.83
2024	25	1,154,335	271,255	3,824	1,154,336	271,256	3,172	53.03	2.83
2025	25	1,098,272	251,861	3,547	1,098,271	251,860	2,943	53.03	2.83
2026	25	1,051,229	235,838	3,323	1,051,234	235,842	2,756	53.03	2.83
2027	25	1,000,211	220,390	3,100	1,000,210	220,384	2,577	53.03	2.83
2028	25	962,787	208,486	2,938	962,786	208,488	2,438	53.03	2.83
2029	25	922,710	196,871	2,772	922,707	196,867	2,302	53.03	2.83
2030	25	873,434	184,284	2,598	873,432	184,293	2,152	53.03	2.83
2031	25	809,948	169,607	2,389	809,948	169,605	1,983	53.03	2.83
2032	25	681,189	143,307	2,017	663,237	139,520	1,633	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		12,895,390	2,910,181	40,988	12,763,825	2,879,951	33,668	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		12,895,390	2,910,181	40,988	12,763,825	2,879,951	33,668	53.03	2.83
Cumulative		20,275,455	0	51,133					
Ultimate		33,170,845	2,910,181	92,121					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	\$M
2020	50,496	7,227	7,370	0	65,093	2,015	584	62,494
2021	48,552	6,903	7,040	0	62,495	1,698	558	60,239
2022	59,543	8,710	8,882	0	77,135	2,062	703	74,370
2023	65,602	9,660	9,852	0	85,114	2,350	781	81,983
2024	61,214	8,799	8,974	0	78,987	2,354	711	75,922
2025	58,242	8,170	8,332	0	74,744	2,319	664	71,761
2026	55,747	7,651	7,803	0	71,201	2,209	625	68,367
2027	53,041	7,149	7,291	0	67,481	1,971	578	64,932
2028	51,056	6,764	6,897	0	64,717	1,757	546	62,414
2029	48,932	6,386	6,513	0	61,831	1,637	516	59,678
2030	46,318	5,979	6,097	0	58,394	1,530	483	56,381
2031	42,951	5,502	5,611	0	54,064	1,389	445	52,230
2032	35,172	4,526	4,616	0	44,314	1,096	365	42,853
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	676,866	93,426	95,278	0	865,570	24,387	7,559	833,624
Remainder	0	0	0	0	0	0	0	0
Total Future	676,866	93,426	95,278	0	865,570	24,387	7,559	833,624

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00	%
2020	0	0	1,300	4,398	5,698	56,796	56,796	54,128	
2021	0	0	6,300	4,217	10,517	49,722	106,518	43,052	
2022	0	0	32,600	5,237	37,837	36,533	143,051	28,191	
2023	0	0	0	5,789	5,789	76,194	219,245	53,841	
2024	0	0	7,700	5,342	13,042	62,880	282,125	40,241	
2025	0	0	0	5,028	5,028	66,733	348,858	38,631	
2026	0	0	0	4,766	4,766	63,601	412,459	33,326	
2027	0	0	0	4,498	4,498	60,434	472,893	28,663	
2028	0	0	0	4,299	4,299	58,115	531,008	24,950	
2029	0	0	0	4,093	4,093	55,585	586,593	21,601	
2030	0	0	0	3,856	3,856	52,525	639,118	18,476	
2031	0	0	0	3,564	3,564	48,666	687,784	15,496	
2032	0	0	0	2,925	2,925	39,928	727,712	11,510	
2033	0	0	4,800	0	4,800	-4,800	722,912	-1,257	
2034	0	0	0	0	0	0	722,912	0	
Sub-Total	0	0	52,700	58,012	110,712	722,912		410,849	
Remainder	0	0	0	0	0	0	722,912	0	
Total Future	0	0	52,700	58,012	110,712	722,912		410,849	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
							10.00%	270,549
							12.00%	250,127
							15.00%	223,968
							20.00%	189,619
							25.00%	163,670

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	20	999,574	233,845	3,294	952,221	222,774	2,604	53.03	2.83
2021	21	784,563	190,540	2,682	747,476	181,526	2,121	53.03	2.83
2022	22	815,281	200,778	2,833	812,246	199,913	2,337	53.03	2.83
2023	22	761,300	185,439	2,605	761,298	185,439	2,170	53.03	2.83
2024	22	668,537	158,955	2,242	668,538	158,956	1,859	53.03	2.83
2025	22	593,774	137,833	1,941	593,772	137,832	1,610	53.03	2.83
2026	22	531,453	120,578	1,700	531,458	120,582	1,408	53.03	2.83
2027	22	478,293	106,214	1,492	478,293	106,210	1,242	53.03	2.83
2028	22	432,068	94,037	1,327	432,065	94,037	1,100	53.03	2.83
2029	22	391,132	83,517	1,175	391,131	83,515	978	53.03	2.83
2030	22	354,577	74,453	1,050	354,575	74,460	868	53.03	2.83
2031	22	321,811	66,553	938	321,811	66,551	778	53.03	2.83
2032	22	292,361	59,711	840	285,184	58,241	683	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		7,424,724	1,712,453	24,119	7,330,068	1,690,036	19,758	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		7,424,724	1,712,453	24,119	7,330,068	1,690,036	19,758	53.03	2.83
Cumulative		20,275,455	0	51,133					
Ultimate		27,700,179	1,712,453	75,252					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	50,496	7,227	7,370	0	65,093	2,015	584	62,494
2021	39,639	5,888	6,005	0	51,532	1,431	476	49,625
2022	43,073	6,486	6,614	0	56,173	1,546	524	54,103
2023	40,372	6,015	6,135	0	52,522	1,441	486	50,595
2024	35,452	5,157	5,259	0	45,868	1,245	416	44,207
2025	31,488	4,471	4,560	0	40,519	1,064	361	39,094
2026	28,183	3,912	3,989	0	36,084	913	317	34,854
2027	25,364	3,445	3,514	0	32,323	784	278	31,261
2028	22,913	3,051	3,111	0	29,075	687	246	28,142
2029	20,741	2,709	2,763	0	26,213	623	219	25,371
2030	18,804	2,415	2,463	0	23,682	564	195	22,923
2031	17,065	2,159	2,202	0	21,426	512	175	20,739
2032	15,124	1,890	1,927	0	18,941	453	152	18,336
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	388,714	54,825	55,912	0	499,451	13,278	4,429	481,744
Remainder	0	0	0	0	0	0	0	0
Total Future	388,714	54,825	55,912	0	499,451	13,278	4,429	481,744

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	1,300	4,398	5,698	56,796	56,796	54,128	
2021	0	0	6,300	3,512	9,812	39,813	96,609	34,515	
2022	0	0	8,300	3,839	12,139	41,964	138,573	32,627	
2023	0	0	0	3,582	3,582	47,013	185,586	33,230	
2024	0	0	0	3,110	3,110	41,097	226,683	26,292	
2025	0	0	0	2,733	2,733	36,361	263,044	21,055	
2026	0	0	0	2,422	2,422	32,432	295,476	17,000	
2027	0	0	0	2,159	2,159	29,102	324,578	13,808	
2028	0	0	0	1,933	1,933	26,209	350,787	11,255	
2029	0	0	0	1,735	1,735	23,636	374,423	9,189	
2030	0	0	0	1,562	1,562	21,361	395,784	7,516	
2031	0	0	0	1,409	1,409	19,330	415,114	6,158	
2032	0	0	0	1,242	1,242	17,094	432,208	4,928	
2033	0	0	4,400	0	4,400	-4,400	427,808	-1,152	
2034	0	0	0	0	0	0	427,808	0	
Sub-Total	0	0	20,300	33,636	53,936	427,808		270,549	
Remainder	0	0	0	0	0	0	427,808	0	
Total Future	0	0	20,300	33,636	53,936	427,808		270,549	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 207,620
								12.00% - 194,268
								15.00% - 176,976
								20.00% - 153,862
								25.00% - 135,992

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	18	952,095	209,875	2,956	906,990	199,939	2,338	53.03	2.83
2021	18	722,072	160,400	2,258	687,940	152,811	1,784	53.03	2.83
2022	18	590,344	128,291	1,811	590,343	128,289	1,501	53.03	2.83
2023	18	500,169	105,168	1,476	500,169	105,167	1,231	53.03	2.83
2024	18	432,977	87,643	1,236	432,976	87,645	1,025	53.03	2.83
2025	18	380,148	73,935	1,042	380,147	73,933	863	53.03	2.83
2026	18	337,018	62,967	889	337,023	62,972	735	53.03	2.83
2027	18	300,870	54,032	758	300,870	54,028	632	53.03	2.83
2028	18	269,889	46,622	658	269,887	46,622	546	53.03	2.83
2029	18	242,737	40,340	566	242,736	40,337	473	53.03	2.83
2030	18	218,681	35,067	496	218,678	35,073	407	53.03	2.83
2031	18	197,276	30,576	431	197,277	30,575	357	53.03	2.83
2032	18	178,173	26,812	378	173,800	26,150	309	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		5,322,449	1,061,728	14,955	5,238,836	1,043,541	12,201	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		5,322,449	1,061,728	14,955	5,238,836	1,043,541	12,201	53.03	2.83
Cumulative		20,123,994	0	50,881					
Ultimate		25,446,443	1,061,728	65,836					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	48,098	6,486	6,614	0	61,198	1,919	524	58,755
2021	36,481	4,957	5,056	0	46,494	1,317	401	44,776
2022	31,306	4,162	4,244	0	39,712	1,124	336	38,252
2023	26,524	3,412	3,480	0	33,416	947	275	32,194
2024	22,961	2,843	2,899	0	28,703	806	230	27,667
2025	20,159	2,398	2,446	0	25,003	681	194	24,128
2026	17,872	2,043	2,083	0	21,998	579	165	21,254
2027	15,955	1,753	1,788	0	19,496	493	142	18,861
2028	14,312	1,512	1,542	0	17,366	430	122	16,814
2029	12,873	1,309	1,335	0	15,517	386	105	15,026
2030	11,596	1,137	1,160	0	13,893	348	92	13,453
2031	10,462	992	1,011	0	12,465	314	81	12,070
2032	9,216	849	866	0	10,931	276	68	10,587
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	277,815	33,853	34,524	0	346,192	9,620	2,735	333,837
Remainder	0	0	0	0	0	0	0	0
Total Future	277,815	33,853	34,524	0	346,192	9,620	2,735	333,837

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	0	0	0	4,080	4,080	54,675	54,675	52,183
2021	0	0	0	3,106	3,106	41,670	96,345	35,972
2022	0	0	0	2,639	2,639	35,613	131,958	27,817
2023	0	0	0	2,205	2,205	29,989	161,947	21,199
2024	0	0	0	1,879	1,879	25,788	187,735	16,501
2025	0	0	0	1,622	1,622	22,506	210,241	13,034
2026	0	0	0	1,416	1,416	19,838	230,079	10,399
2027	0	0	0	1,244	1,244	17,617	247,696	8,359
2028	0	0	0	1,100	1,100	15,714	263,410	6,750
2029	0	0	0	975	975	14,051	277,461	5,462
2030	0	0	0	867	867	12,586	290,047	4,430
2031	0	0	0	773	773	11,297	301,344	3,599
2032	0	0	0	674	674	9,913	311,257	2,858
2033	0	0	3,600	0	3,600	-3,600	307,657	-943
2034	0	0	0	0	0	0	307,657	0
Sub-Total	0	0	3,600	22,580	26,180	307,657		207,620
Remainder	0	0	0	0	0	0	307,657	0
Total Future	0	0	3,600	22,580	26,180	307,657		207,620



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
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BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROVED NON PRODUCING

PROVED  
NON PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 11,379
								12.00% - 10,753
								15.00% - 9,911
								20.00% - 8,721
								25.00% - 7,742

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	47,479	23,970	338	45,231	22,835	266	53.03	2.83
2021	2	51,529	27,027	380	49,092	25,749	302	53.03	2.83
2022	2	34,971	18,536	262	34,972	18,535	216	53.03	2.83
2023	2	24,787	13,150	184	24,786	13,151	154	53.03	2.83
2024	2	18,124	9,560	136	18,125	9,559	112	53.03	2.83
2025	2	13,584	7,086	99	13,583	7,087	83	53.03	2.83
2026	2	10,397	5,344	75	10,397	5,343	62	53.03	2.83
2027	2	8,108	4,096	57	8,108	4,096	48	53.03	2.83
2028	2	6,408	3,177	46	6,408	3,177	37	53.03	2.83
2029	2	5,087	2,478	35	5,087	2,479	29	53.03	2.83
2030	2	4,053	1,942	27	4,052	1,942	23	53.03	2.83
2031	2	3,238	1,528	21	3,239	1,528	18	53.03	2.83
2032	2	2,595	1,207	17	2,531	1,178	13	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		230,360	119,101	1,677	225,611	116,659	1,363	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		230,360	119,101	1,677	225,611	116,659	1,363	53.03	2.83
Cumulative		151,461	0	252					
Ultimate		381,821	119,101	1,929					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,399	741	755	0	3,895	96	60	3,739
2021	2,603	835	852	0	4,290	94	67	4,129
2022	1,854	601	614	0	3,069	66	49	2,954
2023	1,315	427	435	0	2,177	47	34	2,096
2024	961	310	316	0	1,587	34	25	1,528
2025	720	230	234	0	1,184	24	19	1,141
2026	552	173	177	0	902	18	14	870
2027	430	133	136	0	699	13	11	675
2028	340	103	105	0	548	11	8	529
2029	269	81	82	0	432	8	7	417
2030	215	63	64	0	342	6	5	331
2031	172	49	50	0	271	5	4	262
2032	134	38	39	0	211	4	3	204
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	11,964	3,784	3,859	0	19,607	426	306	18,875
Remainder	0	0	0	0	0	0	0	0
Total Future	11,964	3,784	3,859	0	19,607	426	306	18,875

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	0	0	1,300	318	1,618	2,121	2,121	1,945
2021	0	0	0	353	353	3,776	5,897	3,264
2022	0	0	0	254	254	2,700	8,597	2,113
2023	0	0	0	180	180	1,916	10,513	1,355
2024	0	0	0	131	131	1,397	11,910	896
2025	0	0	0	97	97	1,044	12,954	605
2026	0	0	0	74	74	796	13,750	418
2027	0	0	0	57	57	618	14,368	293
2028	0	0	0	44	44	485	14,853	208
2029	0	0	0	35	35	382	15,235	149
2030	0	0	0	28	28	303	15,538	107
2031	0	0	0	22	22	240	15,778	77
2032	0	0	0	17	17	187	15,965	54
2033	0	0	400	0	400	-400	15,565	-105
2034	0	0	0	0	0	0	15,565	0
Sub-Total	0	0	1,700	1,610	3,310	15,565		11,379
Remainder	0	0	0	0	0	0	15,565	0
Total Future	0	0	1,700	1,610	3,310	15,565		11,379



ZHAIKMUNAI LLP  
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AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROVED UNDEVELOPED

PROVED  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 51,550
								12.00% - 45,107
								15.00% - 37,082
								20.00% - 27,036
								25.00% - 19,936

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	10,962	3,113	44	10,444	2,966	35	53.03	2.83
2022	2	189,966	53,951	760	186,931	53,089	620	53.03	2.83
2023	2	236,344	67,121	945	236,343	67,121	785	53.03	2.83
2024	2	217,436	61,752	870	217,437	61,752	722	53.03	2.83
2025	2	200,042	56,812	800	200,042	56,812	664	53.03	2.83
2026	2	184,038	52,267	736	184,038	52,267	611	53.03	2.83
2027	2	169,315	48,086	677	169,315	48,086	562	53.03	2.83
2028	2	155,771	44,238	623	155,770	44,238	517	53.03	2.83
2029	2	143,308	40,699	574	143,308	40,699	476	53.03	2.83
2030	2	131,843	37,444	527	131,845	37,445	438	53.03	2.83
2031	2	121,297	34,449	486	121,295	34,448	403	53.03	2.83
2032	2	111,593	31,692	445	108,853	30,913	361	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,871,915	531,624	7,487	1,865,621	529,836	6,194	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,871,915	531,624	7,487	1,865,621	529,836	6,194	53.03	2.83
Cumulative		0	0	0					
Ultimate		1,871,915	531,624	7,487					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	554	96	98	0	748	20	8	720
2022	9,913	1,722	1,756	0	13,391	356	139	12,896
2023	12,533	2,178	2,221	0	16,932	447	176	16,309
2024	11,531	2,003	2,043	0	15,577	405	162	15,010
2025	10,608	1,843	1,880	0	14,331	359	149	13,823
2026	9,760	1,696	1,729	0	13,185	316	137	12,732
2027	8,978	1,559	1,590	0	12,127	277	126	11,724
2028	8,261	1,436	1,464	0	11,161	248	116	10,797
2029	7,599	1,320	1,346	0	10,265	228	106	9,931
2030	6,992	1,215	1,239	0	9,446	210	98	9,138
2031	6,432	1,117	1,140	0	8,689	193	91	8,405
2032	5,773	1,003	1,023	0	7,799	173	81	7,545
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	98,934	17,188	17,529	0	133,651	3,232	1,389	129,030
Remainder	0	0	0	0	0	0	0	0
Total Future	98,934	17,188	17,529	0	133,651	3,232	1,389	129,030

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	0	0	0	0	0	0	0
2021	0	0	6,300	53	6,353	-5,633	-5,633	-4,721	
2022	0	0	8,300	946	9,246	3,650	-1,983	2,697	
2023	0	0	0	1,197	1,197	15,112	13,129	10,676	
2024	0	0	0	1,101	1,101	13,909	27,038	8,895	
2025	0	0	0	1,013	1,013	12,810	39,848	7,416	
2026	0	0	0	932	932	11,800	51,648	6,183	
2027	0	0	0	857	857	10,867	62,515	5,156	
2028	0	0	0	789	789	10,008	72,523	4,296	
2029	0	0	0	726	726	9,205	81,728	3,579	
2030	0	0	0	667	667	8,471	90,199	2,980	
2031	0	0	0	615	615	7,790	97,989	2,482	
2032	0	0	0	551	551	6,994	104,983	2,016	
2033	0	0	400	0	400	-400	104,583	-105	
2034	0	0	0	0	0	0	104,583	0	
Sub-Total	0	0	15,000	9,447	24,447	104,583		51,550	
Remainder	0	0	0	0	0	0	104,583	0	
Total Future	0	0	15,000	9,447	24,447	104,583		51,550	





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AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH TOURNAISIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	140,300
							12.00%	—	122,213
							15.00%	—	100,009
							20.00%	—	72,824
							25.00%	—	54,115

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	175,955	32,744	461	168,083	31,279	366	53.03	2.83
2022	3	328,832	72,598	1,023	310,570	68,566	801	53.03	2.83
2023	3	475,770	112,338	1,582	475,770	112,339	1,313	53.03	2.83
2024	3	485,798	112,300	1,582	485,798	112,300	1,313	53.03	2.83
2025	3	504,498	114,028	1,606	504,499	114,028	1,333	53.03	2.83
2026	3	519,776	115,260	1,623	519,776	115,260	1,348	53.03	2.83
2027	3	521,918	114,176	1,608	521,917	114,174	1,335	53.03	2.83
2028	3	530,719	114,449	1,611	530,721	114,451	1,338	53.03	2.83
2029	3	531,578	113,354	1,597	531,576	113,352	1,324	53.03	2.83
2030	3	518,857	109,831	1,548	518,857	109,833	1,284	53.03	2.83
2031	3	488,137	103,054	1,451	488,137	103,054	1,205	53.03	2.83
2032	3	388,828	83,596	1,177	378,053	81,279	950	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		5,470,666	1,197,728	16,869	5,433,757	1,189,915	13,910	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		5,470,666	1,197,728	16,869	5,433,757	1,189,915	13,910	53.03	2.83
Cumulative		0	0	0					
Ultimate		5,470,666	1,197,728	16,869					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	8,913	1,015	1,035	0	10,963	267	82	10,614
2022	16,470	2,224	2,268	0	20,962	516	180	20,266
2023	25,230	3,644	3,717	0	32,591	908	294	31,389
2024	25,762	3,643	3,715	0	33,120	1,111	294	31,715
2025	26,753	3,699	3,772	0	34,224	1,254	304	32,666
2026	27,564	3,739	3,813	0	35,116	1,296	309	33,511
2027	27,677	3,704	3,778	0	35,159	1,187	299	33,673
2028	28,145	3,713	3,786	0	35,644	1,070	300	34,274
2029	28,189	3,677	3,750	0	35,616	1,014	297	34,305
2030	27,515	3,563	3,634	0	34,712	966	288	33,458
2031	25,886	3,343	3,409	0	32,638	878	270	31,490
2032	20,048	2,637	2,689	0	25,374	641	213	24,520
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	288,152	38,601	39,366	0	366,119	11,108	3,130	351,881
Remainder	0	0	0	0	0	0	0	0
Total Future	288,152	38,601	39,366	0	366,119	11,108	3,130	351,881

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	0	0	0	0	0	0	0
2021	0	0	0	705	705	9,909	9,909	8,537	
2022	0	0	24,300	1,398	25,698	-5,432	4,477	-4,435	
2023	0	0	0	2,207	2,207	29,182	33,659	20,609	
2024	0	0	7,700	2,232	9,932	21,783	55,442	13,951	
2025	0	0	0	2,294	2,294	30,372	85,814	17,575	
2026	0	0	0	2,345	2,345	31,166	116,980	16,326	
2027	0	0	0	2,340	2,340	31,333	148,313	14,856	
2028	0	0	0	2,365	2,365	31,909	180,222	13,695	
2029	0	0	0	2,357	2,357	31,948	212,170	12,411	
2030	0	0	0	2,294	2,294	31,164	243,334	10,960	
2031	0	0	0	2,156	2,156	29,334	272,668	9,338	
2032	0	0	0	1,682	1,682	22,838	295,506	6,581	
2033	0	0	400	0	400	-400	295,106	-104	
2034	0	0	0	0	0	0	295,106	0	
Sub-Total	0	0	32,400	24,375	56,775	295,106		140,300	
Remainder	0	0	0	0	0	0	295,106	0	
Total Future	0	0	32,400	24,375	56,775	295,106		140,300	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 10 (TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	5,547
	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	5,195
								15.00% -	4,734
								20.00% -	4,111
								25.00% -	3,624

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	18,908	20,179	284	18,012	19,223	225	53.03	2.83
2021	1	16,771	15,211	214	15,978	14,492	169	53.03	2.83
2022	1	14,876	11,722	166	14,876	11,722	137	53.03	2.83
2023	1	13,195	9,207	129	13,195	9,207	108	53.03	2.83
2024	1	11,704	7,351	104	11,704	7,351	86	53.03	2.83
2025	1	10,381	5,952	84	10,382	5,952	69	53.03	2.83
2026	1	9,209	4,882	68	9,208	4,882	57	53.03	2.83
2027	1	8,168	4,048	57	8,168	4,048	48	53.03	2.83
2028	1	7,244	3,391	48	7,245	3,391	39	53.03	2.83
2029	1	6,427	2,865	40	6,426	2,865	34	53.03	2.83
2030	1	5,700	2,442	35	5,700	2,442	28	53.03	2.83
2031	1	5,055	2,095	29	5,056	2,095	25	53.03	2.83
2032	1	4,485	1,811	26	4,374	1,766	21	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		132,123	91,156	1,284	130,324	89,436	1,046	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		132,123	91,156	1,284	130,324	89,436	1,046	53.03	2.83
Cumulative		3,913,297	0	8,644	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		4,045,420	91,156	9,928					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	955	624	636	0	2,215	38	50	2,127
2021	848	470	479	0	1,797	31	38	1,728
2022	788	380	388	0	1,556	28	31	1,497
2023	700	299	305	0	1,304	25	24	1,255
2024	621	238	243	0	1,102	22	19	1,061
2025	550	193	197	0	940	18	16	906
2026	489	159	161	0	809	16	13	780
2027	433	131	134	0	698	14	10	674
2028	384	110	113	0	607	11	9	587
2029	341	93	94	0	528	10	8	510
2030	302	79	81	0	462	9	6	447
2031	268	68	69	0	405	8	6	391
2032	232	57	59	0	348	7	4	337
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	6,911	2,901	2,959	0	12,771	237	234	12,300
Remainder	0	0	0	0	0	0	0	0
Total Future	6,911	2,901	2,959	0	12,771	237	234	12,300

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	427	0	115	217	759	1,368	1,368	1,305
2021	392	0	63	169	624	1,104	2,472	953
2022	295	0	96	142	533	964	3,436	754
2023	188	0	85	115	388	867	4,303	612
2024	137	0	49	95	281	780	5,083	499
2025	116	0	52	80	248	658	5,741	382
2026	96	0	21	66	183	597	6,338	313
2027	93	0	31	57	181	493	6,831	234
2028	96	0	22	49	167	420	7,251	180
2029	97	0	24	41	162	348	7,599	136
2030	100	0	15	36	151	296	7,895	104
2031	101	0	25	32	158	233	8,128	75
2032	109	0	15	27	151	186	8,314	53
2033	0	0	200	0	200	-200	8,114	-53
2034	0	0	0	0	0	0	8,114	0
Sub-Total	2,247	0	813	1,126	4,186	8,114		5,547
Remainder	0	0	0	0	0	0	8,114	0
Total Future	2,247	0	813	1,126	4,186	8,114		5,547



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 22 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	13,259
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	12,236
REMARKS								15.00% -	10,925
								20.00% -	9,205
								25.00% -	7,906

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	57,751	14,151	199	55,015	13,481	158	53.03	2.83
2021	1	53,131	12,737	180	50,619	12,134	141	53.03	2.83
2022	1	48,880	11,462	161	48,880	11,463	134	53.03	2.83
2023	1	44,970	10,317	145	44,970	10,316	121	53.03	2.83
2024	1	41,372	9,284	131	41,373	9,285	109	53.03	2.83
2025	1	38,063	8,357	118	38,062	8,356	97	53.03	2.83
2026	1	35,017	7,520	106	35,018	7,521	88	53.03	2.83
2027	1	32,216	6,769	95	32,216	6,768	79	53.03	2.83
2028	1	29,639	6,092	86	29,639	6,092	72	53.03	2.83
2029	1	27,268	5,482	77	27,267	5,483	64	53.03	2.83
2030	1	25,086	4,934	70	25,087	4,934	57	53.03	2.83
2031	1	23,080	4,441	62	23,079	4,441	52	53.03	2.83
2032	1	21,233	3,997	57	20,712	3,899	46	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		477,706	105,543	1,487	471,937	104,173	1,218	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		477,706	105,543	1,487	471,937	104,173	1,218	53.03	2.83
Cumulative		2,517,684	0	6,831	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		2,995,390	105,543	8,318					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,917	437	446	0	3,800	116	35	3,649
2021	2,685	394	401	0	3,480	97	32	3,351
2022	2,592	372	380	0	3,344	93	30	3,221
2023	2,385	334	341	0	3,060	86	27	2,947
2024	2,194	302	307	0	2,803	77	25	2,701
2025	2,018	271	277	0	2,566	68	21	2,477
2026	1,857	244	248	0	2,349	60	20	2,269
2027	1,708	219	224	0	2,151	53	18	2,080
2028	1,572	198	202	0	1,972	47	16	1,909
2029	1,446	178	181	0	1,805	43	14	1,748
2030	1,331	160	163	0	1,654	40	13	1,601
2031	1,223	144	147	0	1,514	37	12	1,465
2032	1,099	126	129	0	1,354	33	10	1,311
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	25,027	3,379	3,446	0	31,852	850	273	30,729
Remainder	0	0	0	0	0	0	0	0
Total Future	25,027	3,379	3,446	0	31,852	850	273	30,729

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	759	0	206	260	1,225	2,424	2,424	2,311	
2021	784	0	127	236	1,147	2,204	4,628	1,901	
2022	649	0	212	226	1,087	2,134	6,762	1,664	
2023	450	0	206	206	862	2,085	8,847	1,474	
2024	357	0	129	187	673	2,028	10,875	1,296	
2025	322	0	143	171	636	1,841	12,716	1,066	
2026	286	0	63	156	505	1,764	14,480	925	
2027	294	0	97	142	533	1,547	16,027	735	
2028	317	0	74	130	521	1,388	17,415	597	
2029	336	0	85	118	539	1,209	18,624	470	
2030	366	0	55	107	528	1,073	19,697	377	
2031	381	0	95	98	574	891	20,588	285	
2032	435	0	60	87	582	729	21,317	210	
2033	0	0	200	0	200	-200	21,117	-52	
2034	0	0	0	0	0	0	21,117	0	
Sub-Total	5,736	0	1,752	2,124	9,612	21,117		13,259	
Remainder	0	0	0	0	0	0	21,117	0	
Total Future	5,736	0	1,752	2,124	9,612	21,117		13,259	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 24\_ST (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	10,438
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	9,694
REMARKS	GAS LIFT STARTED 7/11/2015							15.00% -	8,736
								20.00% -	7,463
								25.00% -	6,491

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	62,613	4,698	66	59,647	4,476	52	53.03	2.83
2021	1	54,721	2,293	32	52,134	2,184	26	53.03	2.83
2022	1	48,234	1,273	18	48,234	1,273	15	53.03	2.83
2023	1	42,834	772	11	42,834	772	9	53.03	2.83
2024	1	38,294	501	7	38,294	501	6	53.03	2.83
2025	1	34,418	341	5	34,418	341	4	53.03	2.83
2026	1	30,976	241	4	30,976	241	2	53.03	2.83
2027	1	27,879	178	2	27,879	178	2	53.03	2.83
2028	1	25,090	133	2	25,090	133	2	53.03	2.83
2029	1	22,582	102	1	22,582	102	1	53.03	2.83
2030	1	20,324	21	1	20,324	21	0	53.03	2.83
2031	1	18,291	0	0	18,291	0	0	53.03	0.00
2032	1	16,462	0	0	16,058	0	0	53.03	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		442,718	10,553	149	436,761	10,222	119	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		442,718	10,553	149	436,761	10,222	119	53.03	2.83
Cumulative		1,035,675	0	2,521	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		1,478,393	10,553	2,670					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	3,163	145	148	0	3,456	126	12	3,318
2021	2,765	71	72	0	2,908	100	5	2,803
2022	2,558	41	42	0	2,641	92	4	2,545
2023	2,271	25	26	0	2,322	81	2	2,239
2024	2,031	17	17	0	2,065	71	1	1,993
2025	1,825	11	11	0	1,847	62	1	1,784
2026	1,643	8	8	0	1,659	53	1	1,605
2027	1,478	5	6	0	1,489	46	0	1,443
2028	1,331	5	4	0	1,340	40	0	1,300
2029	1,197	3	3	0	1,203	36	1	1,166
2030	1,078	1	1	0	1,080	32	0	1,048
2031	970	0	0	0	970	29	0	941
2032	851	0	0	0	851	26	0	825
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,161	332	338	0	23,831	794	27	23,010
Remainder	0	0	0	0	0	0	0	0
Total Future	23,161	332	338	0	23,831	794	27	23,010

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	699	0	189	191	1,079	2,239	2,239	2,136
2021	667	0	107	152	926	1,877	4,116	1,619
2022	524	0	170	134	828	1,717	5,833	1,342
2023	349	0	160	116	625	1,614	7,447	1,141
2024	269	0	96	101	466	1,527	8,974	975
2025	236	0	106	91	433	1,351	10,325	783
2026	206	0	45	81	332	1,273	11,598	667
2027	208	0	69	72	349	1,094	12,692	520
2028	220	0	51	65	336	964	13,656	414
2029	228	0	58	58	344	822	14,478	320
2030	245	0	36	52	333	715	15,193	252
2031	249	0	62	46	357	584	15,777	186
2032	279	0	39	41	359	466	16,243	135
2033	0	0	200	0	200	-200	16,043	-52
2034	0	0	0	0	0	0	16,043	0
Sub-Total	4,379	0	1,388	1,200	6,967	16,043		10,438
Remainder	0	0	0	0	0	0	16,043	0
Total Future	4,379	0	1,388	1,200	6,967	16,043		10,438



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 30 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	6,704
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	6,275
REMARKS	GAS LIFT STARTED 7/12/2015							15.00% -	5,715
								20.00% -	4,955
								25.00% -	4,361

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	28,619	17,300	244	27,264	16,481	193	53.03	2.83
2021	1	24,327	14,705	207	23,176	14,010	163	53.03	2.83
2022	1	20,677	12,500	176	20,678	12,499	147	53.03	2.83
2023	1	17,576	10,624	149	17,576	10,624	124	53.03	2.83
2024	1	14,940	9,031	128	14,939	9,031	105	53.03	2.83
2025	1	12,699	7,676	108	12,699	7,676	90	53.03	2.83
2026	1	10,793	6,525	92	10,794	6,525	76	53.03	2.83
2027	1	9,175	5,546	78	9,174	5,546	65	53.03	2.83
2028	1	7,799	4,714	66	7,799	4,714	55	53.03	2.83
2029	1	6,628	4,007	57	6,629	4,007	47	53.03	2.83
2030	1	5,635	3,406	48	5,634	3,406	40	53.03	2.83
2031	1	4,789	2,895	40	4,789	2,895	34	53.03	2.83
2032	1	4,071	2,461	35	3,971	2,401	28	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		167,728	101,390	1,428	165,122	99,815	1,167	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		167,728	101,390	1,428	165,122	99,815	1,167	53.03	2.83
Cumulative		700,172	0	1,908	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		867,900	101,390	3,336					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,446	535	545	0	2,526	58	43	2,425
2021	1,229	454	464	0	2,147	44	37	2,066
2022	1,096	406	413	0	1,915	39	33	1,843
2023	932	344	352	0	1,628	34	28	1,566
2024	793	293	298	0	1,384	28	23	1,333
2025	673	249	254	0	1,176	22	20	1,134
2026	572	212	216	0	1,000	19	17	964
2027	487	180	184	0	851	15	15	821
2028	414	153	156	0	723	12	12	699
2029	351	130	132	0	613	11	11	591
2030	299	110	113	0	522	9	9	504
2031	254	94	96	0	444	7	7	430
2032	210	78	79	0	367	7	7	353
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	8,756	3,238	3,302	0	15,296	305	262	14,729
Remainder	0	0	0	0	0	0	0	0
Total Future	8,756	3,238	3,302	0	15,296	305	262	14,729

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	494	0	134	216	844	1,581	1,581	1,508
2021	474	0	76	183	733	1,333	2,914	1,150
2022	365	0	118	164	647	1,196	4,110	934
2023	235	0	107	139	481	1,085	5,195	768
2024	173	0	62	118	353	980	6,175	627
2025	144	0	65	100	309	825	7,000	478
2026	119	0	26	86	231	733	7,733	385
2027	113	0	37	72	222	599	8,332	284
2028	113	0	26	62	201	498	8,830	213
2029	111	0	28	52	191	400	9,230	156
2030	113	0	17	45	175	329	9,559	116
2031	109	0	27	38	174	256	9,815	82
2032	115	0	16	31	162	191	10,006	56
2033	0	0	200	0	200	-200	9,806	-53
2034	0	0	0	0	0	0	9,806	0
Sub-Total	2,678	0	939	1,306	4,923	9,806		6,704
Remainder	0	0	0	0	0	0	9,806	0
Total Future	2,678	0	939	1,306	4,923	9,806		6,704



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 54 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	17,588
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	16,503
REMARKS								15.00% -	15,093
								20.00% -	13,200
								25.00% -	11,729

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	139,471	11,609	164	132,864	11,059	129	53.03	2.83
2021	1	98,225	7,841	110	93,582	7,470	88	53.03	2.83
2022	1	75,882	5,651	80	75,881	5,651	66	53.03	2.83
2023	1	61,839	4,266	60	61,840	4,266	50	53.03	2.83
2024	1	52,191	3,335	47	52,191	3,335	39	53.03	2.83
2025	1	45,149	2,678	37	45,149	2,678	31	53.03	2.83
2026	1	39,784	2,198	31	39,783	2,199	26	53.03	2.83
2027	1	35,552	1,837	26	35,553	1,837	21	53.03	2.83
2028	1	31,987	1,558	22	31,986	1,557	18	53.03	2.83
2029	1	28,788	1,338	19	28,788	1,338	16	53.03	2.83
2030	1	25,909	1,161	16	25,909	1,162	13	53.03	2.83
2031	1	23,318	1,018	15	23,318	1,017	12	53.03	2.83
2032	1	20,986	899	12	20,471	877	11	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		679,081	45,389	639	667,315	44,446	520	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		679,081	45,389	639	667,315	44,446	520	53.03	2.83
Cumulative		4,340,252	0	5,521	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		5,019,333	45,389	6,160	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	7,046	359	366	0	7,771	281	29	7,461
2021	4,962	242	247	0	5,451	179	20	5,252
2022	4,024	183	187	0	4,394	145	14	4,235
2023	3,280	139	141	0	3,560	117	12	3,431
2024	2,767	108	110	0	2,985	97	8	2,880
2025	2,395	87	89	0	2,571	81	7	2,483
2026	2,109	71	73	0	2,253	68	6	2,179
2027	1,886	60	61	0	2,007	58	5	1,944
2028	1,696	50	51	0	1,797	51	4	1,742
2029	1,527	44	44	0	1,615	46	3	1,566
2030	1,374	37	39	0	1,450	41	4	1,405
2031	1,236	33	33	0	1,302	37	2	1,263
2032	1,086	29	29	0	1,144	33	2	1,109
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	35,388	1,442	1,470	0	38,300	1,234	116	36,950
Remainder	0	0	0	0	0	0	0	0
Total Future	35,388	1,442	1,470	0	38,300	1,234	116	36,950

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	1,566	0	416	436	2,418	5,043	5,043	4,821	
2021	1,246	0	199	304	1,749	3,503	8,546	3,028	
2022	869	0	279	243	1,391	2,844	11,390	2,222	
2023	533	0	241	195	969	2,462	13,852	1,740	
2024	387	0	139	162	688	2,192	16,044	1,403	
2025	327	0	146	138	611	1,872	17,916	1,084	
2026	278	0	61	121	460	1,719	19,635	902	
2027	278	0	92	107	477	1,467	21,102	696	
2028	294	0	68	95	457	1,285	22,387	553	
2029	305	0	77	85	467	1,099	23,486	427	
2030	327	0	49	76	452	953	24,439	336	
2031	332	0	83	68	483	780	25,219	249	
2032	373	0	51	60	484	625	25,844	180	
2033	0	0	200	0	200	-200	25,644	-53	
2034	0	0	0	0	0	0	25,644	0	
Sub-Total	7,115	0	2,101	2,090	11,306	25,644		17,588	
Remainder	0	0	0	0	0	0	25,644	0	
Total Future	7,115	0	2,101	2,090	11,306	25,644		17,588	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 56 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	3,809
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	3,549
REMARKS								15.00%	3,211
								20.00%	2,758
								25.00%	2,408

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	22,677	2,386	34	21,602	2,273	27	53.03	2.83
2021	1	19,564	1,956	27	18,640	1,864	21	53.03	2.83
2022	1	16,986	1,622	23	16,986	1,621	19	53.03	2.83
2023	1	14,832	1,358	19	14,831	1,358	16	53.03	2.83
2024	1	13,019	1,147	16	13,020	1,147	14	53.03	2.83
2025	1	11,486	977	14	11,486	977	11	53.03	2.83
2026	1	10,178	838	12	10,178	839	10	53.03	2.83
2027	1	9,058	725	10	9,058	724	8	53.03	2.83
2028	1	8,093	629	9	8,093	630	8	53.03	2.83
2029	1	7,257	551	8	7,257	550	6	53.03	2.83
2030	1	6,527	483	6	6,527	484	6	53.03	2.83
2031	1	5,875	427	6	5,874	427	5	53.03	2.83
2032	1	5,287	379	6	5,158	369	4	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		150,839	13,478	190	148,710	13,263	155	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		150,839	13,478	190	148,710	13,263	155	53.03	2.83
Cumulative		1,195,831	0	2,837	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		1,346,670	13,478	3,027					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,146	74	75	0	1,295	46	6	1,243
2021	988	60	62	0	1,110	35	5	1,070
2022	901	53	53	0	1,007	33	4	970
2023	786	44	45	0	875	28	4	843
2024	691	37	38	0	766	24	3	739
2025	609	32	33	0	674	21	2	651
2026	540	27	27	0	594	17	2	575
2027	480	23	24	0	527	15	2	510
2028	429	21	21	0	471	13	2	456
2029	385	18	18	0	421	11	1	409
2030	346	15	16	0	377	11	2	364
2031	312	14	15	0	341	9	1	331
2032	273	12	12	0	297	8	1	288
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	7,886	430	439	0	8,755	271	35	8,449
Remainder	0	0	0	0	0	0	0	0
Total Future	7,886	430	439	0	8,755	271	35	8,449

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	%
2020	261	0	71	75	407	836	836	797
2021	253	0	41	64	358	712	1,548	615
2022	199	0	64	58	321	649	2,197	507
2023	130	0	59	49	238	605	2,802	427
2024	99	0	36	44	179	560	3,362	359
2025	86	0	38	37	161	490	3,852	283
2026	73	0	16	34	123	452	4,304	237
2027	73	0	24	29	126	384	4,688	183
2028	76	0	18	26	120	336	5,024	144
2029	80	0	20	24	124	285	5,309	111
2030	84	0	13	20	117	247	5,556	87
2031	87	0	21	19	127	204	5,760	65
2032	96	0	14	17	127	161	5,921	47
2033	0	0	200	0	200	-200	5,721	-53
2034	0	0	0	0	0	0	5,721	0
Sub-Total	1,597	0	635	496	2,728	5,721		3,809
Remainder	0	0	0	0	0	0	5,721	0
Total Future	1,597	0	635	496	2,728	5,721		3,809



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 59 (NE TOURNAISIAN-BOBRI)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	11,457
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	10,646
REMARKS								15.00%	9,599
								20.00%	8,209
								25.00%	7,145

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	55,619	17,012	240	52,984	16,207	189	53.03	2.83
2021	1	48,870	13,253	186	46,560	12,626	148	53.03	2.83
2022	1	43,278	10,616	150	43,278	10,615	124	53.03	2.83
2023	1	38,595	8,694	122	38,595	8,694	102	53.03	2.83
2024	1	34,629	7,251	102	34,628	7,251	85	53.03	2.83
2025	1	31,162	6,140	87	31,162	6,140	71	53.03	2.83
2026	1	28,045	5,265	74	28,046	5,266	62	53.03	2.83
2027	1	25,242	4,566	64	25,242	4,566	53	53.03	2.83
2028	1	22,717	3,997	57	22,717	3,997	47	53.03	2.83
2029	1	20,445	3,529	49	20,445	3,528	41	53.03	2.83
2030	1	18,401	3,137	44	18,401	3,137	37	53.03	2.83
2031	1	16,561	2,808	40	16,561	2,808	33	53.03	2.83
2032	1	14,904	2,525	36	14,538	2,463	29	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		398,468	88,793	1,251	393,157	87,298	1,021	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		398,468	88,793	1,251	393,157	87,298	1,021	53.03	2.83
Cumulative		581,492	0	3,479	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		979,960	88,793	4,730					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,810	526	536	0	3,872	112	42	3,718
2021	2,469	409	418	0	3,296	89	34	3,173
2022	2,295	345	351	0	2,991	83	27	2,881
2023	2,047	282	288	0	2,617	73	23	2,521
2024	1,836	235	240	0	2,311	64	19	2,228
2025	1,652	199	203	0	2,054	56	16	1,982
2026	1,488	171	174	0	1,833	48	14	1,771
2027	1,338	148	151	0	1,637	42	12	1,583
2028	1,205	130	132	0	1,467	36	11	1,420
2029	1,084	114	117	0	1,315	32	9	1,274
2030	976	102	104	0	1,182	30	8	1,144
2031	878	91	93	0	1,062	26	7	1,029
2032	771	80	81	0	932	23	7	902
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	20,849	2,832	2,888	0	26,569	714	229	25,626
Remainder	0	0	0	0	0	0	0	0
Total Future	20,849	2,832	2,888	0	26,569	714	229	25,626

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	769	0	208	279	1,256	2,462	2,462	2,348
2021	741	0	120	230	1,091	2,082	4,544	1,798
2022	581	0	188	204	973	1,908	6,452	1,488
2023	386	0	176	176	738	1,783	8,235	1,260
2024	295	0	106	152	553	1,675	9,910	1,071
2025	258	0	115	134	507	1,475	11,385	855
2026	223	0	49	118	390	1,381	12,766	724
2027	224	0	75	104	403	1,180	13,946	561
2028	237	0	54	94	385	1,035	14,981	445
2029	245	0	62	83	390	884	15,865	344
2030	263	0	40	75	378	766	16,631	270
2031	267	0	66	67	400	629	17,260	200
2032	300	0	42	58	400	502	17,762	145
2033	0	0	200	0	200	-200	17,562	-52
2034	0	0	0	0	0	0	17,562	0
Sub-Total	4,789	0	1,501	1,774	8,064	17,562		11,457
Remainder	0	0	0	0	0	0	17,562	0
Total Future	4,789	0	1,501	1,774	8,064	17,562		11,457





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 60 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	4,669
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	4,474
REMARKS								15.00% -	4,210
								20.00% -	3,833
								25.00% -	3,520

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	49,018	6,071	86	46,696	5,784	68	53.03	2.83
2021	1	31,289	3,643	51	29,810	3,470	40	53.03	2.83
2022	1	21,073	2,185	31	21,073	2,186	26	53.03	2.83
2023	1	14,803	1,312	18	14,803	1,311	15	53.03	2.83
2024	1	10,758	787	11	10,758	787	9	53.03	2.83
2025	1	8,040	472	7	8,039	472	6	53.03	2.83
2026	1	6,151	283	4	6,152	283	3	53.03	2.83
2027	1	4,801	170	2	4,801	170	2	53.03	2.83
2028	1	3,812	88	1	3,812	88	1	53.03	2.83
2029	1	3,073	0	0	3,073	0	0	53.03	0.00
2030	1	2,510	0	0	2,509	0	0	53.03	0.00
2031	1	2,073	0	0	2,074	0	0	53.03	0.00
2032	1	1,731	0	0	1,688	0	0	53.03	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		159,132	15,011	211	155,288	14,551	170	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		159,132	15,011	211	155,288	14,551	170	53.03	2.83
Cumulative		797,156	0	2,795	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		956,288	15,011	3,006					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,476	188	191	0	2,855	99	15	2,741
2021	1,581	112	115	0	1,808	57	9	1,742
2022	1,118	71	72	0	1,261	40	6	1,215
2023	785	43	44	0	872	28	3	841
2024	570	25	26	0	621	20	2	599
2025	426	15	15	0	456	14	2	440
2026	327	10	10	0	347	11	0	336
2027	254	5	5	0	264	8	1	255
2028	202	3	3	0	208	6	0	202
2029	163	0	0	0	163	5	0	158
2030	133	0	0	0	133	4	0	129
2031	110	0	0	0	110	3	0	107
2032	90	0	0	0	90	3	0	87
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	8,235	472	481	0	9,188	298	38	8,852
Remainder	0	0	0	0	0	0	0	0
Total Future	8,235	472	481	0	9,188	298	38	8,852

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	573	0	152	170	895	1,846	1,846	1,766
2021	412	0	65	107	584	1,158	3,004	1,003
2022	249	0	79	73	401	814	3,818	636
2023	131	0	59	49	239	602	4,420	425
2024	81	0	28	34	143	456	4,876	293
2025	58	0	26	25	109	331	5,207	193
2026	43	0	9	18	70	266	5,473	138
2027	36	0	12	14	62	193	5,666	93
2028	34	0	8	10	52	150	5,816	64
2029	31	0	8	8	47	111	5,927	44
2030	30	0	4	6	40	89	6,016	31
2031	29	0	7	5	41	66	6,082	21
2032	29	0	5	5	39	48	6,130	14
2033	0	0	200	0	200	-200	5,930	-52
2034	0	0	0	0	0	0	5,930	0
Sub-Total	1,736	0	662	524	2,922	5,930		4,669
Remainder	0	0	0	0	0	0	5,930	0
Total Future	1,736	0	662	524	2,922	5,930		4,669



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 62 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	3,579
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	3,375
REMARKS	GAS LIFT STARTED 8/9/2015							15.00% -	3,104
								20.00% -	2,729
								25.00% -	2,429

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	24,195	4,149	58	23,049	3,953	46	53.03	2.83
2021	1	19,912	3,237	46	18,971	3,083	36	53.03	2.83
2022	1	16,388	2,524	36	16,388	2,524	30	53.03	2.83
2023	1	13,488	1,969	27	13,487	1,969	23	53.03	2.83
2024	1	11,100	1,536	22	11,100	1,536	18	53.03	2.83
2025	1	9,135	1,198	17	9,135	1,198	14	53.03	2.83
2026	1	7,518	934	13	7,519	935	11	53.03	2.83
2027	1	6,188	729	10	6,187	728	8	53.03	2.83
2028	1	5,092	569	8	5,093	569	7	53.03	2.83
2029	1	4,191	443	6	4,191	443	5	53.03	2.83
2030	1	3,450	346	5	3,449	346	4	53.03	2.83
2031	1	2,838	270	4	2,839	270	3	53.03	2.83
2032	1	2,337	210	3	2,279	205	3	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		125,832	18,114	255	123,687	17,759	208	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		125,832	18,114	255	123,687	17,759	208	53.03	2.83
Cumulative		952,512	0	3,046	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		1,078,344	18,114	3,301					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,222	128	131	0	1,481	49	10	1,422
2021	1,006	100	102	0	1,208	36	8	1,164
2022	869	82	83	0	1,034	31	7	996
2023	716	64	65	0	845	26	5	814
2024	588	50	51	0	689	20	4	665
2025	485	39	40	0	564	17	3	544
2026	398	30	31	0	459	13	3	443
2027	329	24	24	0	377	10	2	365
2028	270	18	19	0	307	8	1	298
2029	222	14	14	0	250	7	1	242
2030	183	12	12	0	207	5	1	201
2031	150	8	9	0	167	5	1	161
2032	121	7	7	0	135	3	1	131
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	6,559	576	588	0	7,723	230	47	7,446
Remainder	0	0	0	0	0	0	0	0
Total Future	6,559	576	588	0	7,723	230	47	7,446

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	
2020	297	0	80	94	471	951	951	908
2021	274	0	44	75	393	771	1,722	665
2022	203	0	66	64	333	663	2,385	518
2023	125	0	57	52	234	580	2,965	410
2024	89	0	32	42	163	502	3,467	322
2025	71	0	31	34	136	408	3,875	235
2026	56	0	12	27	95	348	4,223	183
2027	52	0	17	22	91	274	4,497	130
2028	50	0	12	18	80	218	4,715	94
2029	47	0	12	15	74	168	4,883	66
2030	46	0	7	12	65	136	5,019	48
2031	43	0	10	9	62	99	5,118	32
2032	43	0	6	8	57	74	5,192	21
2033	0	0	200	0	200	-200	4,992	-53
2034	0	0	0	0	0	0	4,992	0
Sub-Total	1,396	0	586	472	2,454	4,992		3,579
Remainder	0	0	0	0	0	0	4,992	0
Total Future	1,396	0	586	472	2,454	4,992		3,579



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 65 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	8,040
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	7,419
REMARKS	GAS LIFT STARTED 7/13/2015							15.00%	6,624
								20.00%	5,578
								25.00%	4,789

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	36,628	6,911	97	34,893	6,584	77	53.03	2.83
2021	1	33,621	6,289	89	32,032	5,991	70	53.03	2.83
2022	1	30,932	5,723	81	30,931	5,723	67	53.03	2.83
2023	1	28,456	5,208	73	28,457	5,208	61	53.03	2.83
2024	1	26,181	4,739	67	26,180	4,739	55	53.03	2.83
2025	1	24,085	4,313	60	24,086	4,313	51	53.03	2.83
2026	1	22,159	3,924	56	22,159	3,925	45	53.03	2.83
2027	1	20,386	3,572	50	20,386	3,571	42	53.03	2.83
2028	1	18,756	3,250	46	18,755	3,250	38	53.03	2.83
2029	1	17,255	2,957	41	17,255	2,957	35	53.03	2.83
2030	1	15,874	2,691	38	15,874	2,692	31	53.03	2.83
2031	1	14,605	2,449	35	14,605	2,449	29	53.03	2.83
2032	1	13,436	2,229	31	13,106	2,173	25	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		302,374	54,255	764	298,719	53,575	626	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		302,374	54,255	764	298,719	53,575	626	53.03	2.83
Cumulative		860,832	0	1,498	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		1,163,206	54,255	2,262	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,850	214	218	0	2,282	74	17	2,191
2021	1,699	194	198	0	2,091	61	16	2,014
2022	1,640	186	189	0	2,015	59	15	1,941
2023	1,509	169	173	0	1,851	54	14	1,783
2024	1,389	153	156	0	1,698	49	12	1,637
2025	1,277	140	143	0	1,560	43	11	1,506
2026	1,175	127	130	0	1,432	38	11	1,383
2027	1,081	116	118	0	1,315	33	9	1,273
2028	995	106	108	0	1,209	30	8	1,171
2029	915	96	97	0	1,108	28	8	1,072
2030	842	87	90	0	1,019	25	7	987
2031	774	79	81	0	934	23	7	904
2032	695	71	71	0	837	21	5	811
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	15,841	1,738	1,772	0	19,351	538	140	18,673
Remainder	0	0	0	0	0	0	0	0
Total Future	15,841	1,738	1,772	0	19,351	538	140	18,673

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	458	0	124	147	729	1,462	1,462	1,393
2021	473	0	77	135	685	1,329	2,791	1,148
2022	392	0	128	129	649	1,292	4,083	1,007
2023	274	0	125	119	518	1,265	5,348	894
2024	217	0	78	108	403	1,234	6,582	789
2025	196	0	88	100	384	1,122	7,704	649
2026	175	0	38	91	304	1,079	8,783	567
2027	180	0	60	83	323	950	9,733	450
2028	195	0	45	77	317	854	10,587	366
2029	207	0	53	70	330	742	11,329	290
2030	226	0	33	64	323	664	11,993	233
2031	236	0	59	59	354	550	12,543	176
2032	269	0	38	53	360	451	12,994	130
2033	0	0	200	0	200	-200	12,794	-52
2034	0	0	0	0	0	0	12,794	0
Sub-Total	3,498	0	1,146	1,235	5,879	12,794		8,040
Remainder	0	0	0	0	0	0	12,794	0
Total Future	3,498	0	1,146	1,235	5,879	12,794		8,040



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 67 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	2,347
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	2,182
REMARKS								15.00%	1,968
								20.00%	1,681
								25.00%	1,459

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	11,424	2,733	38	10,882	2,604	30	53.03	2.83
2021	1	10,281	2,312	33	9,796	2,202	26	53.03	2.83
2022	1	9,253	1,981	28	9,253	1,982	23	53.03	2.83
2023	1	8,328	1,717	24	8,328	1,717	20	53.03	2.83
2024	1	7,495	1,502	21	7,495	1,502	18	53.03	2.83
2025	1	6,745	1,325	19	6,745	1,325	15	53.03	2.83
2026	1	6,071	1,178	17	6,071	1,177	14	53.03	2.83
2027	1	5,464	1,054	14	5,464	1,054	13	53.03	2.83
2028	1	4,918	947	14	4,918	947	11	53.03	2.83
2029	1	4,426	853	12	4,425	853	10	53.03	2.83
2030	1	3,983	767	11	3,984	767	9	53.03	2.83
2031	1	3,585	691	9	3,584	691	8	53.03	2.83
2032	1	3,226	621	9	3,148	606	7	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		85,199	17,681	249	84,093	17,427	204	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		85,199	17,681	249	84,093	17,427	204	53.03	2.83
Cumulative		309,565	0	741	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		394,764	17,681	990					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	577	84	86	0	747	23	7	717
2021	520	72	73	0	665	19	6	640
2022	490	64	66	0	620	17	5	598
2023	442	56	56	0	554	16	4	534
2024	397	49	50	0	496	14	4	478
2025	358	43	44	0	445	12	4	429
2026	322	38	39	0	399	11	3	385
2027	290	34	35	0	359	9	3	347
2028	261	31	31	0	323	7	2	314
2029	234	27	28	0	289	7	2	280
2030	211	25	26	0	262	7	2	253
2031	191	23	22	0	236	5	2	229
2032	166	19	21	0	206	5	2	199
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	4,459	565	577	0	5,601	152	46	5,403
Remainder	0	0	0	0	0	0	0	0
Total Future	4,459	565	577	0	5,601	152	46	5,403

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	149	0	41	51	241	476	476	455
2021	150	0	24	44	218	422	898	363
2022	121	0	39	41	201	397	1,295	310
2023	82	0	37	37	156	378	1,673	267
2024	63	0	23	32	118	360	2,033	230
2025	56	0	25	29	110	319	2,352	185
2026	48	0	11	26	85	300	2,652	157
2027	49	0	16	23	88	259	2,911	123
2028	52	0	12	21	85	229	3,140	98
2029	54	0	14	19	87	193	3,333	76
2030	58	0	8	17	83	170	3,503	59
2031	60	0	15	15	90	139	3,642	45
2032	66	0	9	13	88	111	3,753	32
2033	0	0	200	0	200	-200	3,553	-53
2034	0	0	0	0	0	0	3,553	0
Sub-Total	1,008	0	474	368	1,850	3,553		2,347
Remainder	0	0	0	0	0	0	3,553	0
Total Future	1,008	0	474	368	1,850	3,553		2,347



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 70 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE	Oil/	Plant	Gas	Oil/Cond.	Plt. Prod.	Gas	FUTURE NET INCOME - \$M	
	INTEREST	Condensate	Products		\$/bbl.	\$/bbl.	\$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	7,610
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	7,095
REMARKS								15.00% -	6,428
								20.00% -	5,538
								25.00% -	4,854

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	39,900	13,568	191	38,010	12,926	151	53.03	2.83
2021	1	31,604	10,747	151	30,110	10,238	120	53.03	2.83
2022	1	26,170	8,899	126	26,169	8,899	104	53.03	2.83
2023	1	22,333	7,595	107	22,334	7,595	89	53.03	2.83
2024	1	19,479	6,623	93	19,478	6,624	77	53.03	2.83
2025	1	17,272	5,874	83	17,273	5,873	69	53.03	2.83
2026	1	15,498	5,270	74	15,498	5,270	61	53.03	2.83
2027	1	13,948	4,743	67	13,948	4,743	56	53.03	2.83
2028	1	12,554	4,269	60	12,554	4,269	50	53.03	2.83
2029	1	11,298	3,842	54	11,298	3,842	45	53.03	2.83
2030	1	10,168	3,458	49	10,168	3,458	40	53.03	2.83
2031	1	9,152	3,112	44	9,152	3,112	36	53.03	2.83
2032	1	8,236	2,801	39	8,034	2,732	32	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		237,612	80,801	1,138	234,026	79,581	930	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		237,612	80,801	1,138	234,026	79,581	930	53.03	2.83
Cumulative		112,852	0	491	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		350,464	80,801	1,629	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,016	419	428	0	2,863	80	34	2,749
2021	1,596	332	338	0	2,266	58	27	2,181
2022	1,388	289	295	0	1,972	50	23	1,899
2023	1,184	247	251	0	1,682	42	20	1,620
2024	1,033	214	219	0	1,466	36	17	1,413
2025	916	191	194	0	1,301	31	16	1,254
2026	822	171	175	0	1,168	27	14	1,127
2027	740	154	157	0	1,051	23	12	1,016
2028	666	138	141	0	945	20	11	914
2029	599	125	127	0	851	18	10	823
2030	539	112	114	0	765	16	9	740
2031	485	101	103	0	689	15	8	666
2032	426	89	91	0	606	12	8	586
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	12,410	2,582	2,633	0	17,625	428	209	16,988
Remainder	0	0	0	0	0	0	0	0
Total Future	12,410	2,582	2,633	0	17,625	428	209	16,988

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	567	0	152	211	930	1,819	1,819	1,736
2021	507	0	82	168	757	1,424	3,243	1,231
2022	381	0	123	145	649	1,250	4,493	975
2023	246	0	112	125	483	1,137	5,630	804
2024	186	0	67	108	361	1,052	6,682	673
2025	161	0	72	96	329	925	7,607	536
2026	141	0	31	86	258	869	8,476	456
2027	142	0	47	78	267	749	9,225	355
2028	150	0	35	70	255	659	9,884	283
2029	157	0	39	62	258	565	10,449	220
2030	168	0	25	57	250	490	10,939	173
2031	171	0	43	51	265	401	11,340	128
2032	192	0	27	45	264	322	11,662	93
2033	0	0	200	0	200	-200	11,462	-53
2034	0	0	0	0	0	0	11,462	0
Sub-Total	3,169	0	1,055	1,302	5,526	11,462		7,610
Remainder	0	0	0	0	0	0	11,462	0
Total Future	3,169	0	1,055	1,302	5,526	11,462		7,610



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 111 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	15,833
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	14,750
REMARKS								15.00% -	13,346
								20.00% -	11,469
								25.00% -	10,022

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	56,464	44,541	627	53,789	42,431	496	53.03	2.83
2021	1	49,878	36,969	521	47,520	35,222	412	53.03	2.83
2022	1	44,380	30,685	432	44,381	30,684	358	53.03	2.83
2023	1	39,745	25,468	359	39,744	25,468	298	53.03	2.83
2024	1	35,749	21,138	298	35,750	21,138	247	53.03	2.83
2025	1	32,175	17,545	247	32,174	17,545	205	53.03	2.83
2026	1	28,957	14,562	205	28,957	14,563	171	53.03	2.83
2027	1	26,061	12,087	170	26,062	12,086	141	53.03	2.83
2028	1	23,456	10,032	141	23,455	10,032	117	53.03	2.83
2029	1	21,109	8,327	118	21,110	8,327	98	53.03	2.83
2030	1	18,999	6,911	97	18,998	6,911	80	53.03	2.83
2031	1	17,099	5,736	81	17,099	5,736	67	53.03	2.83
2032	1	15,389	4,761	67	15,011	4,644	55	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		409,461	238,762	3,363	404,050	234,787	2,745	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		409,461	238,762	3,363	404,050	234,787	2,745	53.03	2.83
Cumulative		264,463	0	2,770	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		673,924	238,762	6,133					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,852	1,376	1,404	0	5,632	114	111	5,407
2021	2,520	1,143	1,165	0	4,828	91	93	4,644
2022	2,354	995	1,015	0	4,364	84	80	4,200
2023	2,108	827	843	0	3,778	76	67	3,635
2024	1,895	685	699	0	3,279	66	55	3,158
2025	1,707	570	580	0	2,857	58	46	2,753
2026	1,535	472	482	0	2,489	49	38	2,402
2027	1,382	392	400	0	2,174	43	32	2,099
2028	1,244	325	332	0	1,901	38	26	1,837
2029	1,119	271	275	0	1,665	33	22	1,610
2030	1,008	224	229	0	1,461	30	18	1,413
2031	907	186	190	0	1,283	28	15	1,240
2032	796	150	153	0	1,099	23	12	1,064
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	21,427	7,616	7,767	0	36,810	733	615	35,462
Remainder	0	0	0	0	0	0	0	0
Total Future	21,427	7,616	7,767	0	36,810	733	615	35,462

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	%
2020	1,095	0	297	514	1,906	3,501	3,501	3,341
2021	1,060	0	171	433	1,664	2,980	6,481	2,571
2022	828	0	268	386	1,482	2,718	9,199	2,122
2023	544	0	248	327	1,119	2,516	11,715	1,777
2024	410	0	147	279	836	2,322	14,037	1,487
2025	351	0	157	237	745	2,008	16,045	1,162
2026	297	0	65	203	565	1,837	17,882	964
2027	291	0	96	174	561	1,538	19,420	730
2028	301	0	70	149	520	1,317	20,737	567
2029	305	0	77	127	509	1,101	21,838	428
2030	320	0	48	110	478	935	22,773	329
2031	319	0	79	94	492	748	23,521	238
2032	350	0	49	80	479	585	24,106	170
2033	0	0	200	0	200	-200	23,906	-53
2034	0	0	0	0	0	0	23,906	0
Sub-Total	6,471	0	1,972	3,113	11,556	23,906		15,833
Remainder	0	0	0	0	0	0	23,906	0
Total Future	6,471	0	1,972	3,113	11,556	23,906		15,833



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 115 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
NON-PRODUCING

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000							10.00%	-191
FINAL	1.000000							12.00%	-189
REMARKS	RECOMPLETED TO ARDATOVSKI							15.00%	-187
								20.00%	-183
								25.00%	-179

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		151,461	0	252					
Ultimate		151,461	0	252					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	200	0	200	-200	-200	-191
2021	0	0	0	0	0	0	-200	0
2022	0	0	0	0	0	0	-200	0
2023	0	0	0	0	0	0	-200	0
2024	0	0	0	0	0	0	-200	0
2025	0	0	0	0	0	0	-200	0
2026	0	0	0	0	0	0	-200	0
2027	0	0	0	0	0	0	-200	0
2028	0	0	0	0	0	0	-200	0
2029	0	0	0	0	0	0	-200	0
2030	0	0	0	0	0	0	-200	0
2031	0	0	0	0	0	0	-200	0
2032	0	0	0	0	0	0	-200	0
2033	0	0	0	0	0	0	-200	0
2034	0	0	0	0	0	0	-200	0
Sub-Total	0	0	200	0	200	-200		-191
Remainder	0	0	0	0	0	0	-200	0
Total Future	0	0	200	0	200	-200		-191



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 115-B (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	9,832
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	9,173
REMARKS								15.00%	8,322
								20.00%	7,186
								25.00%	6,313

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	57,772	13,640	192	55,035	12,994	152	53.03	2.83
2021	1	45,758	10,410	147	43,595	9,918	116	53.03	2.83
2022	1	37,891	8,108	114	37,891	8,107	95	53.03	2.83
2023	1	32,336	6,426	90	32,336	6,426	75	53.03	2.83
2024	1	28,204	5,171	73	28,204	5,172	60	53.03	2.83
2025	1	25,008	4,217	60	25,008	4,217	49	53.03	2.83
2026	1	22,464	3,479	49	22,464	3,479	41	53.03	2.83
2027	1	20,390	2,902	41	20,390	2,902	34	53.03	2.83
2028	1	18,666	2,442	34	18,666	2,442	29	53.03	2.83
2029	1	17,212	2,074	29	17,212	2,073	24	53.03	2.83
2030	1	15,968	1,773	25	15,968	1,774	21	53.03	2.83
2031	1	14,891	1,528	22	14,891	1,528	17	53.03	2.83
2032	1	13,951	1,325	18	13,609	1,292	16	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		350,511	63,495	894	345,269	62,324	729	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		350,511	63,495	894	345,269	62,324	729	53.03	2.83
Cumulative		1,521,218	0	4,360	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		1,871,729	63,495	5,254					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,919	422	430	0	3,771	116	34	3,621
2021	2,311	321	328	0	2,960	84	26	2,850
2022	2,010	263	268	0	2,541	72	21	2,448
2023	1,715	209	213	0	2,137	61	17	2,059
2024	1,495	167	171	0	1,833	53	14	1,766
2025	1,326	137	139	0	1,602	45	11	1,546
2026	1,192	113	116	0	1,421	38	9	1,374
2027	1,081	94	96	0	1,271	34	7	1,230
2028	990	80	80	0	1,150	29	7	1,114
2029	912	67	69	0	1,048	28	5	1,015
2030	847	57	59	0	963	25	5	933
2031	790	50	50	0	890	24	4	862
2032	722	42	43	0	807	21	3	783
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	18,310	2,022	2,062	0	22,394	630	163	21,601
Remainder	0	0	0	0	0	0	0	0
Total Future	18,310	2,022	2,062	0	22,394	630	163	21,601

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	752	0	202	255	1,209	2,412	2,412	2,302
2021	667	0	107	199	973	1,877	4,289	1,621
2022	496	0	160	168	824	1,624	5,913	1,268
2023	316	0	144	140	600	1,459	7,372	1,031
2024	234	0	84	117	435	1,331	8,703	853
2025	202	0	90	101	393	1,153	9,856	668
2026	174	0	38	88	300	1,074	10,930	562
2027	174	0	58	78	310	920	11,850	437
2028	187	0	43	69	299	815	12,665	351
2029	196	0	50	62	308	707	13,372	275
2030	215	0	32	56	303	630	14,002	221
2031	226	0	56	52	334	528	14,530	169
2032	262	0	37	46	345	438	14,968	126
2033	0	0	200	0	200	-200	14,768	-52
2034	0	0	0	0	0	0	14,768	0
Sub-Total	4,101	0	1,301	1,431	6,833	14,768		9,832
Remainder	0	0	0	0	0	0	14,768	0
Total Future	4,101	0	1,301	1,431	6,833	14,768		9,832





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 117 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	8,720
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	8,187
REMARKS	GAS LIFT STARTED 8/21/2015							15.00% -	7,492
								20.00% -	6,551
								25.00% -	5,816

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	57,684	12,996	183	54,951	12,381	145	53.03	2.83
2021	1	45,094	8,395	118	42,963	7,998	93	53.03	2.83
2022	1	36,221	6,052	86	36,220	6,051	71	53.03	2.83
2023	1	29,731	4,656	65	29,732	4,657	54	53.03	2.83
2024	1	24,843	3,742	53	24,843	3,741	44	53.03	2.83
2025	1	21,069	3,101	43	21,068	3,101	36	53.03	2.83
2026	1	18,093	2,631	38	18,094	2,631	31	53.03	2.83
2027	1	15,707	2,273	32	15,707	2,273	27	53.03	2.83
2028	1	13,764	1,992	28	13,764	1,992	23	53.03	2.83
2029	1	12,160	1,767	24	12,159	1,767	21	53.03	2.83
2030	1	10,821	1,582	23	10,821	1,583	18	53.03	2.83
2031	1	9,691	1,424	20	9,692	1,424	17	53.03	2.83
2032	1	8,718	1,282	18	8,504	1,250	14	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		303,596	51,893	731	298,518	50,849	594	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		303,596	51,893	731	298,518	50,849	594	53.03	2.83
Cumulative		722,715	0	2,516	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		1,026,311	51,893	3,247					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,914	402	410	0	3,726	116	32	3,578
2021	2,278	259	264	0	2,801	83	21	2,697
2022	1,921	196	200	0	2,317	68	16	2,233
2023	1,577	151	154	0	1,882	57	12	1,813
2024	1,317	122	124	0	1,563	46	10	1,507
2025	1,117	100	103	0	1,320	38	8	1,274
2026	960	86	87	0	1,133	31	7	1,095
2027	833	74	75	0	982	26	6	950
2028	730	64	66	0	860	21	5	834
2029	645	57	58	0	760	20	5	735
2030	573	52	53	0	678	17	4	657
2031	514	46	47	0	607	15	4	588
2032	451	41	41	0	533	14	3	516
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	15,830	1,650	1,682	0	19,162	552	133	18,477
Remainder	0	0	0	0	0	0	0	0
Total Future	15,830	1,650	1,682	0	19,162	552	133	18,477

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	743	0	199	250	1,192	2,386	2,386	2,278
2021	634	0	102	180	916	1,781	4,167	1,540
2022	454	0	146	146	746	1,487	5,654	1,162
2023	280	0	127	116	523	1,290	6,944	912
2024	200	0	72	97	369	1,138	8,082	728
2025	167	0	74	81	322	952	9,034	552
2026	138	0	30	69	237	858	9,892	449
2027	135	0	44	60	239	711	10,603	337
2028	139	0	33	53	225	609	11,212	262
2029	142	0	36	47	225	510	11,722	200
2030	151	0	22	41	214	443	12,165	155
2031	153	0	38	37	228	360	12,525	115
2032	172	0	24	33	229	287	12,812	83
2033	0	0	200	0	200	-200	12,612	-53
2034	0	0	0	0	0	0	12,612	0
Sub-Total	3,508	0	1,147	1,210	5,865	12,612		8,720
Remainder	0	0	0	0	0	0	12,612	0
Total Future	3,508	0	1,147	1,210	5,865	12,612		8,720



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 124 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	899
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	866
REMARKS								15.00%	820
								20.00%	750
								25.00%	689

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	8,968	1,695	24	8,543	1,615	19	53.03	2.83
2021	1	5,592	1,021	14	5,328	972	11	53.03	2.83
2022	1	3,820	657	10	3,820	658	8	53.03	2.83
2023	1	2,775	446	6	2,775	445	5	53.03	2.83
2024	1	2,107	315	4	2,107	315	4	53.03	2.83
2025	1	1,655	230	3	1,655	230	3	53.03	2.83
2026	1	1,334	172	3	1,334	172	2	53.03	2.83
2027	1	1,098	132	2	1,098	133	1	53.03	2.83
2028	1	920	104	1	919	103	1	53.03	2.83
2029	1	781	30	1	782	30	1	53.03	2.83
2030	1	672	0	0	672	0	0	53.03	0.00
2031	1	585	0	0	585	0	0	53.03	0.00
2032	1	513	0	0	500	0	0	53.03	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		30,820	4,802	68	30,118	4,673	55	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		30,820	4,802	68	30,118	4,673	55	53.03	2.83
Cumulative		233,974	0	860	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		264,794	4,802	928					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	453	52	53	0	558	18	4	536
2021	283	32	33	0	348	10	3	335
2022	202	21	21	0	244	8	2	234
2023	147	15	15	0	177	5	1	171
2024	112	10	11	0	133	4	0	129
2025	88	7	7	0	102	3	1	98
2026	71	6	6	0	83	2	1	80
2027	58	4	4	0	66	2	0	64
2028	49	4	4	0	57	1	0	56
2029	41	1	1	0	43	1	0	42
2030	36	0	0	0	36	2	0	34
2031	31	0	0	0	31	0	0	31
2032	26	0	0	0	26	1	0	25
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,597	152	155	0	1,904	57	12	1,835
Remainder	0	0	0	0	0	0	0	0
Total Future	1,597	152	155	0	1,904	57	12	1,835

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	
2020	111	0	29	36	176	360	360	344
2021	79	0	13	22	114	221	581	191
2022	48	0	15	16	79	155	736	123
2023	26	0	12	11	49	122	858	86
2024	17	0	6	8	31	98	956	61
2025	13	0	6	6	25	73	1,029	44
2026	10	0	2	5	17	63	1,092	32
2027	10	0	3	4	17	47	1,139	23
2028	9	0	2	3	14	42	1,181	17
2029	8	0	2	3	13	29	1,210	12
2030	8	0	1	1	10	24	1,234	8
2031	8	0	2	2	12	19	1,253	6
2032	9	0	1	1	11	14	1,267	4
2033	0	0	200	0	200	-200	1,067	-52
2034	0	0	0	0	0	0	1,067	0
Sub-Total	356	0	294	118	768	1,067		899
Remainder	0	0	0	0	0	0	1,067	0
Total Future	356	0	294	118	768	1,067		899



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 213 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	3,008
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	2,837
REMARKS								15.00% -	2,612
								20.00% -	2,305
								25.00% -	2,062

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	27,163	1,059	15	25,876	1,009	12	53.03	2.83
2021	1	18,093	506	7	17,238	481	5	53.03	2.83
2022	1	13,586	334	5	13,586	335	4	53.03	2.83
2023	1	10,881	251	3	10,881	251	3	53.03	2.83
2024	1	9,077	201	3	9,077	201	3	53.03	2.83
2025	1	7,787	167	2	7,786	167	2	53.03	2.83
2026	1	6,817	144	2	6,818	144	1	53.03	2.83
2027	1	6,063	125	2	6,063	125	2	53.03	2.83
2028	1	5,448	112	2	5,448	112	1	53.03	2.83
2029	1	4,903	100	1	4,903	100	1	53.03	2.83
2030	1	4,413	90	2	4,412	90	1	53.03	2.83
2031	1	3,971	3	0	3,972	3	0	53.03	2.83
2032	1	3,574	0	0	3,486	0	0	53.03	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		121,776	3,092	44	119,546	3,018	35	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		121,776	3,092	44	119,546	3,018	35	53.03	2.83
Cumulative		14,926	0	15	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		136,702	3,092	59					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,372	33	33	0	1,438	55	3	1,380
2021	914	15	16	0	945	33	1	911
2022	721	11	11	0	743	26	1	716
2023	577	8	9	0	594	20	0	574
2024	481	7	6	0	494	17	1	476
2025	413	5	6	0	424	14	0	410
2026	362	5	5	0	372	12	1	359
2027	321	4	4	0	329	10	0	319
2028	289	4	3	0	296	8	0	288
2029	260	3	4	0	267	8	1	258
2030	234	3	3	0	240	7	0	233
2031	211	0	0	0	211	7	0	204
2032	185	0	0	0	185	5	0	180
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	6,340	98	100	0	6,538	222	8	6,308
Remainder	0	0	0	0	0	0	0	0
Total Future	6,340	98	100	0	6,538	222	8	6,308

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	291	0	76	75	442	938	938	899
2021	217	0	35	48	300	611	1,549	528
2022	148	0	47	37	232	484	2,033	378
2023	89	0	41	30	160	414	2,447	291
2024	65	0	23	25	113	363	2,810	234
2025	54	0	24	21	99	311	3,121	179
2026	46	0	10	19	75	284	3,405	149
2027	46	0	15	16	77	242	3,647	115
2028	48	0	11	15	74	214	3,861	92
2029	51	0	13	13	77	181	4,042	70
2030	54	0	8	12	74	159	4,201	56
2031	54	0	14	11	79	125	4,326	40
2032	61	0	8	8	77	103	4,429	30
2033	0	0	200	0	200	-200	4,229	-53
2034	0	0	0	0	0	0	4,229	0
Sub-Total	1,224	0	525	330	2,079	4,229		3,008
Remainder	0	0	0	0	0	0	4,229	0
Total Future	1,224	0	525	330	2,079	4,229		3,008



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 224 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	20,241
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	19,131
REMARKS								15.00% -	17,683
								20.00% -	15,721
								25.00% -	14,180

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	197,221	15,177	214	187,878	14,458	169	53.03	2.83
2021	1	115,341	8,875	125	109,888	8,456	99	53.03	2.83
2022	1	81,817	6,297	88	81,818	6,296	73	53.03	2.83
2023	1	63,452	4,882	69	63,451	4,883	58	53.03	2.83
2024	1	51,835	3,989	56	51,835	3,989	46	53.03	2.83
2025	1	43,819	3,372	48	43,820	3,372	40	53.03	2.83
2026	1	37,954	2,921	41	37,954	2,920	34	53.03	2.83
2027	1	33,474	2,576	36	33,474	2,576	30	53.03	2.83
2028	1	29,934	2,303	33	29,934	2,304	27	53.03	2.83
2029	1	26,934	2,073	29	26,934	2,072	24	53.03	2.83
2030	1	24,241	1,865	26	24,241	1,866	22	53.03	2.83
2031	1	21,817	1,679	24	21,816	1,679	19	53.03	2.83
2032	1	19,634	1,511	21	19,153	1,473	18	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		747,473	57,520	810	732,196	56,344	659	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		747,473	57,520	810	732,196	56,344	659	53.03	2.83
Cumulative		49,378	0	48	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		796,851	57,520	858					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	9,963	469	478	0	10,910	398	38	10,474
2021	5,828	274	280	0	6,382	210	22	6,150
2022	4,338	205	208	0	4,751	156	17	4,578
2023	3,365	158	162	0	3,685	120	12	3,553
2024	2,749	129	132	0	3,010	96	11	2,903
2025	2,324	110	111	0	2,545	79	9	2,457
2026	2,012	95	97	0	2,204	65	7	2,132
2027	1,776	83	85	0	1,944	55	7	1,882
2028	1,587	75	76	0	1,738	47	6	1,685
2029	1,428	67	69	0	1,564	43	6	1,515
2030	1,286	61	62	0	1,409	39	4	1,366
2031	1,157	54	55	0	1,266	35	5	1,226
2032	1,015	48	49	0	1,112	30	4	1,078
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	38,828	1,828	1,864	0	42,520	1,373	148	40,999
Remainder	0	0	0	0	0	0	0	0
Total Future	38,828	1,828	1,864	0	42,520	1,373	148	40,999

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	2,192	0	564	606	3,362	7,112	7,112	6,817
2021	1,459	0	230	354	2,043	4,107	11,219	3,550
2022	941	0	301	264	1,506	3,072	14,291	2,404
2023	552	0	249	204	1,005	2,548	16,839	1,800
2024	390	0	139	167	696	2,207	19,046	1,413
2025	323	0	144	142	609	1,848	20,894	1,071
2026	271	0	60	122	453	1,679	22,573	880
2027	269	0	89	108	466	1,416	23,989	673
2028	283	0	65	96	444	1,241	25,230	532
2029	295	0	75	87	457	1,058	26,288	413
2030	316	0	47	78	441	925	27,213	325
2031	322	0	80	71	473	753	27,966	241
2032	361	0	50	61	472	606	28,572	174
2033	0	0	200	0	200	-200	28,372	-52
2034	0	0	0	0	0	0	28,372	0
Sub-Total	7,974	0	2,293	2,360	12,627	28,372		20,241
Remainder	0	0	0	0	0	0	28,372	0
Total Future	7,974	0	2,293	2,360	12,627	28,372		20,241



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 303 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	4,985
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	4,683
REMARKS								15.00% -	4,278
								20.00% -	3,712
								25.00% -	3,252

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	34,779	14,322	202	33,132	13,644	159	53.03	2.83
2021	1	34,838	14,346	202	33,190	13,668	160	53.03	2.83
2022	1	23,087	9,508	134	23,088	9,507	111	53.03	2.83
2023	1	16,325	6,722	94	16,325	6,723	79	53.03	2.83
2024	1	12,100	4,983	71	12,100	4,982	58	53.03	2.83
2025	1	9,294	3,827	53	9,294	3,828	45	53.03	2.83
2026	1	7,343	3,024	43	7,343	3,023	35	53.03	2.83
2027	1	5,934	2,444	34	5,933	2,444	29	53.03	2.83
2028	1	4,859	2,001	29	4,860	2,001	23	53.03	2.83
2029	1	3,985	1,641	23	3,985	1,641	19	53.03	2.83
2030	1	3,268	1,345	19	3,267	1,346	16	53.03	2.83
2031	1	2,679	1,104	15	2,680	1,103	13	53.03	2.83
2032	1	2,197	904	13	2,143	883	10	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		160,688	66,171	932	157,340	64,793	757	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		160,688	66,171	932	157,340	64,793	757	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		160,688	66,171	932					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,757	443	451	0	2,651	70	36	2,545
2021	1,760	443	453	0	2,656	64	36	2,556
2022	1,224	308	314	0	1,846	44	25	1,777
2023	866	218	222	0	1,306	31	17	1,258
2024	642	162	165	0	969	22	13	934
2025	493	124	127	0	744	17	10	717
2026	389	98	100	0	587	12	8	567
2027	315	80	81	0	476	10	7	459
2028	257	65	66	0	388	8	5	375
2029	212	53	54	0	319	6	4	309
2030	173	43	45	0	261	5	4	252
2031	142	36	36	0	214	5	3	206
2032	114	29	30	0	173	3	2	168
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	8,344	2,102	2,144	0	12,590	297	170	12,123
Remainder	0	0	0	0	0	0	0	0
Total Future	8,344	2,102	2,144	0	12,590	297	170	12,123

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	535	0	1,128	205	1,868	677	677	603
2021	591	0	93	206	890	1,666	2,343	1,441
2022	358	0	113	143	614	1,163	3,506	911
2023	191	0	86	101	378	880	4,386	622
2024	123	0	43	75	241	693	5,079	444
2025	92	0	41	58	191	526	5,605	305
2026	70	0	15	46	131	436	6,041	229
2027	64	0	21	36	121	338	6,379	160
2028	61	0	15	31	107	268	6,647	116
2029	59	0	14	24	97	212	6,859	82
2030	57	0	9	20	86	166	7,025	59
2031	53	0	13	17	83	123	7,148	39
2032	54	0	7	13	74	94	7,242	27
2033	0	0	200	0	200	-200	7,042	-53
2034	0	0	0	0	0	0	7,042	0
Sub-Total	2,308	0	1,798	975	5,081	7,042		4,985
Remainder	0	0	0	0	0	0	7,042	0
Total Future	2,308	0	1,798	975	5,081	7,042		4,985



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 216 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	3,055
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	2,894
REMARKS								15.00%	2,673
								20.00%	2,356
								25.00%	2,091

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	12,700	9,648	136	12,099	9,191	107	53.03	2.83
2021	1	16,691	12,681	178	15,902	12,081	142	53.03	2.83
2022	1	11,884	9,028	128	11,884	9,028	105	53.03	2.83
2023	1	8,462	6,428	90	8,461	6,428	75	53.03	2.83
2024	1	6,024	4,577	65	6,025	4,577	54	53.03	2.83
2025	1	4,290	3,259	46	4,289	3,259	38	53.03	2.83
2026	1	3,054	2,320	32	3,054	2,320	27	53.03	2.83
2027	1	2,174	1,652	23	2,175	1,652	19	53.03	2.83
2028	1	1,549	1,176	17	1,548	1,176	14	53.03	2.83
2029	1	1,102	837	12	1,102	838	10	53.03	2.83
2030	1	785	597	8	785	596	7	53.03	2.83
2031	1	559	424	6	559	425	5	53.03	2.83
2032	1	398	303	4	388	295	3	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		69,672	52,930	745	68,271	51,866	606	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		69,672	52,930	745	68,271	51,866	606	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		69,672	52,930	745					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	642	298	304	0	1,244	26	24	1,194
2021	843	392	400	0	1,635	30	32	1,573
2022	630	293	298	0	1,221	23	23	1,175
2023	449	208	213	0	870	16	17	837
2024	319	149	152	0	620	11	12	597
2025	228	106	107	0	441	8	9	424
2026	162	75	77	0	314	5	6	303
2027	115	54	55	0	224	3	4	217
2028	82	38	39	0	159	3	3	153
2029	59	27	27	0	113	2	2	109
2030	41	19	20	0	80	1	2	77
2031	30	14	14	0	58	1	1	56
2032	20	10	10	0	40	0	1	39
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,620	1,683	1,716	0	7,019	129	136	6,754
Remainder	0	0	0	0	0	0	0	0
Total Future	3,620	1,683	1,716	0	7,019	129	136	6,754

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	248	0	320	112	680	514	514	472
2021	359	0	57	148	564	1,009	1,523	872
2022	232	0	74	111	417	758	2,281	593
2023	126	0	56	78	260	577	2,858	408
2024	77	0	27	56	160	437	3,295	279
2025	54	0	24	40	118	306	3,601	179
2026	37	0	8	28	73	230	3,831	120
2027	30	0	10	21	61	156	3,987	75
2028	24	0	5	14	43	110	4,097	47
2029	21	0	6	10	37	72	4,169	28
2030	17	0	2	7	26	51	4,220	18
2031	14	0	4	6	24	32	4,252	11
2032	12	0	1	3	16	23	4,275	6
2033	0	0	200	0	200	-200	4,075	-53
2034	0	0	0	0	0	0	4,075	0
Sub-Total	1,251	0	794	634	2,679	4,075		3,055
Remainder	0	0	0	0	0	0	4,075	0
Total Future	1,251	0	794	634	2,679	4,075		3,055



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 301 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE	Oil/	Plant	Gas	Oil/Cond.	Plt. Prod.	Gas	FUTURE NET INCOME - \$M	
	INTEREST	Condensate	Products		\$/bbl.	\$/bbl.	\$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952724	0.952724	0.952724	53.03	32.44	2.83	10.00%	19,869
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	17,426
REMARKS								15.00%	14,364
								20.00%	10,494
								25.00%	7,728

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	10,962	3,113	44	10,444	2,966	35	53.03	2.83
2022	1	125,770	35,719	503	125,769	35,719	417	53.03	2.83
2023	1	115,708	32,861	463	115,708	32,861	384	53.03	2.83
2024	1	106,451	30,232	426	106,452	30,232	354	53.03	2.83
2025	1	97,935	27,814	391	97,935	27,814	325	53.03	2.83
2026	1	90,101	25,588	361	90,101	25,588	299	53.03	2.83
2027	1	82,892	23,542	331	82,892	23,542	275	53.03	2.83
2028	1	76,262	21,658	305	76,261	21,658	253	53.03	2.83
2029	1	70,160	19,925	281	70,160	19,925	233	53.03	2.83
2030	1	64,547	18,332	258	64,548	18,332	215	53.03	2.83
2031	1	59,384	16,865	238	59,383	16,865	197	53.03	2.83
2032	1	54,633	15,516	218	53,292	15,134	177	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		954,805	271,165	3,819	952,945	270,636	3,164	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		954,805	271,165	3,819	952,945	270,636	3,164	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		954,805	271,165	3,819	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	554	96	98	0	748	20	8	720
2022	6,669	1,159	1,182	0	9,010	239	93	8,678
2023	6,136	1,066	1,087	0	8,289	219	87	7,983
2024	5,646	981	1,000	0	7,627	199	79	7,349
2025	5,193	902	920	0	7,015	175	73	6,767
2026	4,778	830	847	0	6,455	155	67	6,233
2027	4,396	764	779	0	5,939	136	61	5,742
2028	4,044	702	716	0	5,462	121	57	5,284
2029	3,721	647	659	0	5,027	112	52	4,863
2030	3,423	594	607	0	4,624	102	48	4,474
2031	3,149	547	558	0	4,254	95	45	4,114
2032	2,826	491	500	0	3,817	85	39	3,693
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	50,535	8,779	8,953	0	68,267	1,658	709	65,900
Remainder	0	0	0	0	0	0	0	0
Total Future	50,535	8,779	8,953	0	68,267	1,658	709	65,900

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00 %	%
2020	0	0	0	0	0	0	0	0	0
2021	159	0	6,300	53	6,512	-5,792	-5,792	-4,852	
2022	1,743	0	568	637	2,948	5,730	-62	4,470	
2023	1,215	0	556	586	2,357	5,626	5,564	3,974	
2024	968	0	349	539	1,856	5,493	11,057	3,513	
2025	875	0	392	496	1,763	5,004	16,061	2,898	
2026	780	0	171	456	1,407	4,826	20,887	2,530	
2027	807	0	267	420	1,494	4,248	25,135	2,016	
2028	873	0	203	386	1,462	3,822	28,957	1,643	
2029	929	0	235	355	1,519	3,344	32,301	1,300	
2030	1,019	0	152	327	1,498	2,976	35,277	1,048	
2031	1,062	0	265	301	1,628	2,486	37,763	793	
2032	1,217	0	169	269	1,655	2,038	39,801	588	
2033	0	0	200	0	200	-200	39,601	-52	
2034	0	0	0	0	0	0	39,601	0	
Sub-Total	11,647	0	9,827	4,825	26,299	39,601		19,869	
Remainder	0	0	0	0	0	0	39,601	0	
Total Future	11,647	0	9,827	4,825	26,299	39,601		19,869	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 58 (NE TOURNAISIAN)

OIL LEASE  
PROVED  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE	Oil/	Plant	Gas	Oil/Cond.	Plt. Prod.	Gas	FUTURE NET INCOME - \$M	
	INTEREST	Condensate	Products		\$/bbl.	\$/bbl.	\$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952724	0.952724	0.952724	53.03	32.44	2.83	10.00%	16,533
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	14,230
REMARKS								15.00%	11,379
								20.00%	7,853
								25.00%	5,410

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	64,196	18,232	257	61,162	17,370	203	53.03	2.83
2023	1	120,636	34,260	482	120,635	34,260	401	53.03	2.83
2024	1	110,985	31,520	444	110,985	31,520	368	53.03	2.83
2025	1	102,107	28,998	409	102,107	28,998	339	53.03	2.83
2026	1	93,937	26,679	375	93,937	26,679	312	53.03	2.83
2027	1	86,423	24,544	346	86,423	24,544	287	53.03	2.83
2028	1	79,509	22,580	318	79,509	22,580	264	53.03	2.83
2029	1	73,148	20,774	293	73,148	20,774	243	53.03	2.83
2030	1	67,296	19,112	269	67,297	19,113	223	53.03	2.83
2031	1	61,913	17,584	248	61,912	17,583	206	53.03	2.83
2032	1	56,960	16,176	227	55,561	15,779	184	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		917,110	260,459	3,668	912,676	259,200	3,030	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		917,110	260,459	3,668	912,676	259,200	3,030	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		917,110	260,459	3,668	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	3,243	563	575	0	4,381	116	46	4,219
2023	6,398	1,112	1,133	0	8,643	229	89	8,325
2024	5,885	1,022	1,043	0	7,950	206	83	7,661
2025	5,415	941	959	0	7,315	183	76	7,056
2026	4,981	866	883	0	6,730	162	70	6,498
2027	4,583	796	812	0	6,191	141	64	5,986
2028	4,217	732	747	0	5,696	127	59	5,510
2029	3,879	674	687	0	5,240	116	55	5,069
2030	3,569	620	632	0	4,821	107	50	4,664
2031	3,283	571	582	0	4,436	99	46	4,291
2032	2,946	511	522	0	3,979	88	41	3,850
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	48,399	8,408	8,575	0	65,382	1,574	679	63,129
Remainder	0	0	0	0	0	0	0	0
Total Future	48,399	8,408	8,575	0	65,382	1,574	679	63,129

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	746	0	8,864	310	9,920	-5,701	-5,701	-4,582
2023	1,266	0	580	611	2,457	5,868	167	4,143
2024	1,009	0	364	562	1,935	5,726	5,893	3,663
2025	913	0	408	517	1,838	5,218	11,111	3,021
2026	813	0	179	475	1,467	5,031	16,142	2,638
2027	841	0	278	438	1,557	4,429	20,571	2,102
2028	911	0	211	402	1,524	3,986	24,557	1,712
2029	969	0	246	371	1,586	3,483	28,040	1,356
2030	1,062	0	158	341	1,561	3,103	31,143	1,092
2031	1,107	0	276	313	1,696	2,595	33,738	827
2032	1,268	0	177	281	1,726	2,124	35,862	614
2033	0	0	200	0	200	-200	35,662	-53
2034	0	0	0	0	0	0	35,662	0
Sub-Total	10,905	0	11,941	4,621	27,467	35,662		16,533
Remainder	0	0	0	0	0	0	35,662	0
Total Future	10,905	0	11,941	4,621	27,467	35,662		16,533





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 68 (NE TOURNAISIAN)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	24,599
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	21,442
REMARKS								15.00%	17,515
								20.00%	12,611
								25.00%	9,157

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	105,531	29,971	422	99,670	28,306	331	53.03	2.83
2023	1	117,329	33,321	469	117,329	33,322	389	53.03	2.83
2024	1	107,943	30,656	432	107,943	30,656	359	53.03	2.83
2025	1	99,307	28,203	397	99,308	28,203	330	53.03	2.83
2026	1	91,363	25,947	366	91,362	25,947	303	53.03	2.83
2027	1	84,054	23,872	336	84,054	23,871	279	53.03	2.83
2028	1	77,329	21,961	309	77,330	21,962	257	53.03	2.83
2029	1	71,144	20,205	285	71,143	20,204	236	53.03	2.83
2030	1	65,451	18,588	262	65,451	18,589	217	53.03	2.83
2031	1	60,216	17,101	241	60,216	17,101	200	53.03	2.83
2032	1	55,398	15,733	221	53,863	15,297	179	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		935,065	265,558	3,740	927,669	263,458	3,080	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		935,065	265,558	3,740	927,669	263,458	3,080	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		935,065	265,558	3,740	SHRINKAGE FACTOR = 17.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	5,286	918	936	0	7,140	165	74	6,901
2023	6,221	1,081	1,103	0	8,405	224	88	8,093
2024	5,725	995	1,014	0	7,734	247	80	7,407
2025	5,266	915	933	0	7,114	247	75	6,792
2026	4,845	841	858	0	6,544	228	69	6,247
2027	4,457	775	790	0	6,022	191	63	5,768
2028	4,101	712	727	0	5,540	156	58	5,326
2029	3,773	656	668	0	5,097	136	53	4,908
2030	3,471	603	615	0	4,689	122	48	4,519
2031	3,193	554	566	0	4,313	108	45	4,160
2032	2,856	497	506	0	3,859	91	40	3,728
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	49,194	8,547	8,716	0	66,457	1,915	693	63,849
Remainder	0	0	0	0	0	0	0	0
Total Future	49,194	8,547	8,716	0	66,457	1,915	693	63,849

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		%
2020	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0
2022	0	0	8,300	505	8,805	-1,904	-1,904	-1,824	
2023	0	0	0	594	594	7,499	5,595	5,298	
2024	0	0	0	546	546	6,861	12,456	4,387	
2025	0	0	0	503	503	6,289	18,745	3,641	
2026	0	0	0	463	463	5,784	24,529	3,032	
2027	0	0	0	425	425	5,343	29,872	2,534	
2028	0	0	0	392	392	4,934	34,806	2,119	
2029	0	0	0	360	360	4,548	39,354	1,767	
2030	0	0	0	332	332	4,187	43,541	1,473	
2031	0	0	0	305	305	3,855	47,396	1,228	
2032	0	0	0	272	272	3,456	50,852	996	
2033	0	0	200	0	200	-200	50,652	-52	
2034	0	0	0	0	0	0	50,652	0	
Sub-Total	0	0	8,500	4,697	13,197	50,652		24,599	
Remainder	0	0	0	0	0	0	50,652	0	
Total Future	0	0	8,500	4,697	13,197	50,652		24,599	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE PB\_2 (NE TOURNAISIAN)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	16,067
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	13,723
REMARKS								15.00%	10,836
								20.00%	7,298
								25.00%	4,880

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	10,962	3,113	44	10,353	2,940	34	53.03	2.83
2023	1	125,770	35,719	503	125,770	35,719	418	53.03	2.83
2024	1	115,708	32,861	463	115,708	32,861	384	53.03	2.83
2025	1	106,451	30,232	426	106,451	30,232	353	53.03	2.83
2026	1	97,935	27,814	391	97,936	27,814	326	53.03	2.83
2027	1	90,101	25,588	361	90,100	25,588	299	53.03	2.83
2028	1	82,892	23,542	331	82,893	23,542	275	53.03	2.83
2029	1	76,262	21,658	305	76,261	21,658	253	53.03	2.83
2030	1	70,160	19,925	281	70,160	19,925	233	53.03	2.83
2031	1	64,547	18,332	258	64,547	18,332	214	53.03	2.83
2032	1	59,384	16,865	238	57,738	16,398	192	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		900,172	255,649	3,601	897,917	255,009	2,981	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		900,172	255,649	3,601	897,917	255,009	2,981	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		900,172	255,649	3,601					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	549	95	97	0	741	17	8	716
2023	6,670	1,159	1,182	0	9,011	240	93	8,678
2024	6,136	1,066	1,087	0	8,289	265	86	7,938
2025	5,645	981	1,000	0	7,626	265	81	7,280
2026	5,193	902	920	0	7,015	244	74	6,697
2027	4,778	830	847	0	6,455	205	67	6,183
2028	4,396	764	779	0	5,939	167	62	5,710
2029	4,044	702	716	0	5,462	145	57	5,260
2030	3,721	647	660	0	5,028	131	52	4,845
2031	3,423	595	606	0	4,624	116	48	4,460
2032	3,062	531	542	0	4,135	98	43	3,994
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	47,617	8,272	8,436	0	64,325	1,893	671	61,761
Remainder	0	0	0	0	0	0	0	0
Total Future	47,617	8,272	8,436	0	64,325	1,893	671	61,761

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	252	0	252	-252	-252	-238
2021	0	0	128	0	128	-128	-380	-111
2022	133	0	8,548	52	8,733	-8,017	-8,397	-6,135
2023	1,493	0	224	637	2,354	6,324	-2,073	4,465
2024	1,113	0	139	586	1,838	6,100	4,027	3,901
2025	1,021	0	138	539	1,698	5,582	9,609	3,232
2026	865	0	55	496	1,416	5,281	14,890	2,769
2027	921	0	78	456	1,455	4,728	19,618	2,244
2028	990	0	54	420	1,464	4,246	23,864	1,824
2029	1,071	0	59	386	1,516	3,744	27,608	1,456
2030	1,150	0	36	356	1,542	3,303	30,911	1,163
2031	1,264	0	59	326	1,649	2,811	33,722	895
2032	1,399	0	36	293	1,728	2,266	35,988	655
2033	0	0	200	0	200	-200	35,788	-53
2034	0	0	0	0	0	0	35,788	0
Sub-Total	11,420	0	10,006	4,547	25,973	35,788		16,067
Remainder	0	0	0	0	0	0	35,788	0
Total Future	11,420	0	10,006	4,547	25,973	35,788		16,067



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WATERFLOOD (PB) (NE TOURNAISIAN)

OIL LEASE  
PROBABLE  
WATERFLOOD

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.956012	0.956012	0.956012	53.03	32.44	2.83	10.00%	77,695
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	68,194
REMARKS								15.00%	56,475
								20.00%	42,008
								25.00%	31,934

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	175,955	32,744	461	168,083	31,279	366	53.03	2.83
2022	1	212,339	39,514	557	200,547	37,320	436	53.03	2.83
2023	1	232,671	43,298	610	232,671	43,298	506	53.03	2.83
2024	1	262,147	48,783	687	262,147	48,783	570	53.03	2.83
2025	1	298,740	55,593	783	298,740	55,593	650	53.03	2.83
2026	1	330,478	61,499	866	330,478	61,499	719	53.03	2.83
2027	1	347,763	64,716	911	347,763	64,715	757	53.03	2.83
2028	1	370,498	68,946	971	370,498	68,947	806	53.03	2.83
2029	1	384,172	71,491	1,007	384,172	71,490	835	53.03	2.83
2030	1	383,246	71,318	1,005	383,246	71,319	834	53.03	2.83
2031	1	363,374	67,621	952	363,374	67,621	791	53.03	2.83
2032	1	274,046	50,998	718	266,452	49,584	579	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		3,635,429	676,521	9,528	3,608,171	671,448	7,849	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		3,635,429	676,521	9,528	3,608,171	671,448	7,849	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		3,635,429	676,521	9,528					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	8,913	1,015	1,035	0	10,963	267	82	10,614
2022	10,635	1,210	1,234	0	13,079	333	98	12,648
2023	12,339	1,405	1,433	0	15,177	444	113	14,620
2024	13,902	1,582	1,614	0	17,098	600	128	16,370
2025	15,842	1,804	1,839	0	19,485	743	148	18,594
2026	17,525	1,995	2,035	0	21,555	823	165	20,567
2027	18,442	2,099	2,141	0	22,682	791	169	21,722
2028	19,647	2,237	2,280	0	24,164	747	181	23,236
2029	20,373	2,319	2,366	0	25,058	733	188	24,137
2030	20,324	2,314	2,359	0	24,997	714	186	24,097
2031	19,269	2,193	2,237	0	23,699	653	178	22,868
2032	14,130	1,609	1,641	0	17,380	452	130	16,798
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	191,341	21,782	22,214	0	235,337	7,300	1,766	226,271
Remainder	0	0	0	0	0	0	0	0
Total Future	191,341	21,782	22,214	0	235,337	7,300	1,766	226,271

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	0	0	1,111	0	1,111	-1,111	-1,111	-1,053	
2021	2,673	0	569	705	3,947	6,667	5,556	5,747	
2022	3,058	0	1,096	841	4,995	7,653	13,209	5,970	
2023	2,528	0	988	976	4,492	10,128	23,337	7,148	
2024	2,309	0	615	1,099	4,023	12,347	35,684	7,891	
2025	2,625	0	610	1,253	4,488	14,106	49,790	8,162	
2026	2,679	0	240	1,386	4,305	16,262	66,052	8,518	
2027	3,264	0	343	1,458	5,065	16,657	82,709	7,899	
2028	4,064	0	241	1,554	5,859	17,377	100,086	7,461	
2029	4,955	0	261	1,611	6,827	17,310	117,396	6,727	
2030	5,772	0	159	1,607	7,538	16,559	133,955	5,826	
2031	6,537	0	261	1,524	8,322	14,546	148,501	4,634	
2032	5,934	0	159	1,117	7,210	9,588	158,089	2,765	
2033	0	0	0	0	0	0	158,089	0	
2034	0	0	0	0	0	0	158,089	0	
Sub-Total	46,398	0	6,653	15,131	68,182	158,089		77,695	
Remainder	0	0	0	0	0	0	158,089	0	
Total Future	46,398	0	6,653	15,131	68,182	158,089		77,695	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE 110\_INJ (NE TOURNAISIAN)

OIL LEASE  
PROBABLE  
INJECTION

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000							10.00%	-
FINAL	1.000000							12.00%	-4,899
REMARKS								15.00%	-4,477
								20.00%	-3,913
								25.00%	-3,128
									-2,503

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	7,700	0	7,700	-7,700	-7,700	-4,899
2025	0	0	0	0	0	0	-7,700	0
2026	0	0	0	0	0	0	-7,700	0
2027	0	0	0	0	0	0	-7,700	0
2028	0	0	0	0	0	0	-7,700	0
2029	0	0	0	0	0	0	-7,700	0
2030	0	0	0	0	0	0	-7,700	0
2031	0	0	0	0	0	0	-7,700	0
2032	0	0	0	0	0	0	-7,700	0
2033	0	0	0	0	0	0	-7,700	0
2034	0	0	0	0	0	0	-7,700	0
Sub-Total	0	0	7,700	0	7,700	-7,700		-4,899
Remainder	0	0	0	0	0	0	-7,700	0
Total Future	0	0	7,700	0	7,700	-7,700		-4,899



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE 113\_INJ (NE TOURNAISIAN)

OIL LEASE  
PROBABLE  
INJECTION

INITIAL FINAL REMARKS	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000							10.00%	-5,978
	1.000000							12.00%	-5,684
								15.00%	-5,272
								20.00%	-4,651
								25.00%	-4,106

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	7,700	0	7,700	-7,700	-7,700	-5,978
2023	0	0	0	0	0	0	-7,700	0
2024	0	0	0	0	0	0	-7,700	0
2025	0	0	0	0	0	0	-7,700	0
2026	0	0	0	0	0	0	-7,700	0
2027	0	0	0	0	0	0	-7,700	0
2028	0	0	0	0	0	0	-7,700	0
2029	0	0	0	0	0	0	-7,700	0
2030	0	0	0	0	0	0	-7,700	0
2031	0	0	0	0	0	0	-7,700	0
2032	0	0	0	0	0	0	-7,700	0
2033	0	0	0	0	0	0	-7,700	0
2034	0	0	0	0	0	0	-7,700	0
Sub-Total	0	0	7,700	0	7,700	-7,700		-5,978
Remainder	0	0	0	0	0	0	-7,700	0
Total Future	0	0	7,700	0	7,700	-7,700		-5,978



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST TOURNAISIAN  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST TOURNAISIAN  
TOTAL PROVED

TOTAL  
PROVED

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	0
FINAL								12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST TOURNAISIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	0
FINAL								12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
WEST WELL 33 (WEST TOURNAISIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	3,683
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	3,415
REMARKS								15.00% -	3,068
								20.00% -	2,608
								25.00% -	2,255

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	17,517	4,443	46	16,687	4,233	36	53.03	2.83
2021	1	15,765	4,043	41	15,020	3,852	33	53.03	2.83
2022	1	14,189	3,680	38	14,189	3,679	32	53.03	2.83
2023	1	12,770	3,348	35	12,770	3,349	28	53.03	2.83
2024	1	11,493	3,047	31	11,493	3,046	26	53.03	2.83
2025	1	10,343	2,773	29	10,343	2,773	24	53.03	2.83
2026	1	9,310	2,523	26	9,310	2,523	22	53.03	2.83
2027	1	8,378	2,296	24	8,378	2,296	19	53.03	2.83
2028	1	7,541	2,089	21	7,540	2,090	18	53.03	2.83
2029	1	6,786	1,902	20	6,787	1,901	16	53.03	2.83
2030	1	6,108	1,730	18	6,108	1,730	15	53.03	2.83
2031	1	5,497	1,575	16	5,497	1,575	14	53.03	2.83
2032	1	4,947	1,432	15	4,826	1,398	12	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		130,644	34,881	360	128,948	34,445	295	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		130,644	34,881	360	128,948	34,445	295	53.03	2.83
Cumulative		508,767	0	988	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 17.00 %				
Ultimate		639,411	34,881	1,348					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	885	137	102	0	1,124	35	10	1,079
2021	796	125	94	0	1,015	29	8	978
2022	753	120	89	0	962	27	9	926
2023	677	108	81	0	866	24	7	835
2024	610	99	74	0	783	22	7	754
2025	548	90	67	0	705	18	6	681
2026	494	82	61	0	637	16	6	615
2027	444	74	56	0	574	14	5	555
2028	400	68	50	0	518	12	5	501
2029	360	62	46	0	468	11	4	453
2030	324	56	42	0	422	9	4	409
2031	291	51	38	0	380	9	4	367
2032	256	45	34	0	335	8	3	324
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	6,838	1,117	834	0	8,789	234	78	8,477
Remainder	0	0	0	0	0	0	0	0
Total Future	6,838	1,117	834	0	8,789	234	78	8,477

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	225	0	61	75	361	718	718	686
2021	229	0	37	67	333	645	1,363	555
2022	187	0	61	64	312	614	1,977	479
2023	127	0	58	58	243	592	2,569	417
2024	100	0	36	53	189	565	3,134	362
2025	89	0	40	47	176	505	3,639	293
2026	77	0	17	43	137	478	4,117	250
2027	78	0	26	39	143	412	4,529	196
2028	83	0	19	35	137	364	4,893	157
2029	87	0	22	32	141	312	5,205	121
2030	93	0	14	29	136	273	5,478	96
2031	96	0	23	26	145	222	5,700	71
2032	107	0	15	22	144	180	5,880	52
2033	0	0	200	0	200	-200	5,680	-52
2034	0	0	0	0	0	0	5,680	0
Sub-Total	1,578	0	629	590	2,797	5,680		3,683
Remainder	0	0	0	0	0	0	5,680	0
Total Future	1,578	0	629	590	2,797	5,680		3,683



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SOUTH TOURNAISIAN  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 19,100
								12.00% - 17,940
								15.00% - 16,417
								20.00% - 14,343
								25.00% - 12,707

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	4	34,444	50,560	972	32,812	48,164	843	53.03	2.83
2021	4	28,790	42,489	817	27,429	40,480	709	53.03	2.83
2022	4	24,097	35,742	688	24,098	35,745	625	53.03	2.83
2023	4	20,191	30,099	578	20,190	30,097	527	53.03	2.83
2024	4	16,930	25,371	487	16,929	25,372	444	53.03	2.83
2025	4	14,206	21,410	413	14,207	21,409	375	53.03	2.83
2026	4	11,930	18,087	349	11,929	18,086	315	53.03	2.83
2027	4	10,024	15,299	294	10,026	15,298	269	53.03	2.83
2028	4	8,434	12,953	250	8,432	12,954	225	53.03	2.83
2029	4	7,099	10,982	210	7,099	10,983	193	53.03	2.83
2030	4	5,981	9,322	179	5,982	9,323	163	53.03	2.83
2031	4	5,044	7,924	152	5,046	7,925	139	53.03	2.83
2032	4	4,258	6,743	130	4,154	6,576	115	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Cumulative		1,163,220	0	15,323					
Ultimate		1,354,648	286,981	20,842					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,740	1,562	2,385	0	5,687	69	158	5,460
2021	1,455	1,314	2,005	0	4,774	53	133	4,588
2022	1,277	1,159	1,770	0	4,206	46	117	4,043
2023	1,071	977	1,491	0	3,539	38	98	3,403
2024	898	823	1,256	0	2,977	32	84	2,861
2025	753	694	1,061	0	2,508	25	70	2,413
2026	633	587	895	0	2,115	21	59	2,035
2027	532	496	758	0	1,786	16	50	1,720
2028	447	420	642	0	1,509	13	43	1,453
2029	376	357	544	0	1,277	12	36	1,229
2030	317	302	461	0	1,080	9	30	1,041
2031	268	257	393	0	918	8	26	884
2032	220	213	325	0	758	7	22	729
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	9,987	9,161	13,986	0	33,134	349	926	31,859
Remainder	0	0	0	0	0	0	0	0
Total Future	9,987	9,161	13,986	0	33,134	349	926	31,859

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	0	623	623	4,837	4,837	4,611	
2021	0	0	0	524	524	4,064	8,901	3,506	
2022	0	0	0	462	462	3,581	12,482	2,798	
2023	0	0	0	388	388	3,015	15,497	2,130	
2024	0	0	0	328	328	2,533	18,030	1,623	
2025	0	0	0	276	276	2,137	20,167	1,237	
2026	0	0	0	233	233	1,802	21,969	945	
2027	0	0	0	197	197	1,523	23,492	723	
2028	0	0	0	166	166	1,287	24,779	553	
2029	0	0	0	142	142	1,087	25,866	423	
2030	0	0	0	119	119	922	26,788	324	
2031	0	0	0	102	102	782	27,570	249	
2032	0	0	0	84	84	645	28,215	187	
2033	0	0	800	0	800	-800	27,415	-209	
2034	0	0	0	0	0	0	27,415	0	
Sub-Total	0	0	800	3,644	4,444	27,415		19,100	
Remainder	0	0	0	0	0	0	27,415	0	
Total Future	0	0	800	3,644	4,444	27,415		19,100	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SOUTH TOURNAISIAN  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 19,100
								12.00% - 17,940
								15.00% - 16,417
								20.00% - 14,343
								25.00% - 12,707

ESTIMATED 8/8 THS PRODUCTION					COMPANY NET SALES			AVERAGE PRICES	
Period	Number of Wells	Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	4	34,444	50,560	972	32,812	48,164	843	53.03	2.83
2021	4	28,790	42,489	817	27,429	40,480	709	53.03	2.83
2022	4	24,097	35,742	688	24,098	35,745	625	53.03	2.83
2023	4	20,191	30,099	578	20,190	30,097	527	53.03	2.83
2024	4	16,930	25,371	487	16,929	25,372	444	53.03	2.83
2025	4	14,206	21,410	413	14,207	21,409	375	53.03	2.83
2026	4	11,930	18,087	349	11,929	18,086	315	53.03	2.83
2027	4	10,024	15,299	294	10,026	15,298	269	53.03	2.83
2028	4	8,434	12,953	250	8,432	12,954	225	53.03	2.83
2029	4	7,099	10,982	210	7,099	10,983	193	53.03	2.83
2030	4	5,981	9,322	179	5,982	9,323	163	53.03	2.83
2031	4	5,044	7,924	152	5,046	7,925	139	53.03	2.83
2032	4	4,258	6,743	130	4,154	6,576	115	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Cumulative		1,163,220	0	15,323					
Ultimate		1,354,648	286,981	20,842					

COMPANY FUTURE GROSS REVENUE (FGR) - \$M						ROYALTY		FGR AFTER ROYALTY \$M
Period	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,740	1,562	2,385	0	5,687	69	158	5,460
2021	1,455	1,314	2,005	0	4,774	53	133	4,588
2022	1,277	1,159	1,770	0	4,206	46	117	4,043
2023	1,071	977	1,491	0	3,539	38	98	3,403
2024	898	823	1,256	0	2,977	32	84	2,861
2025	753	694	1,061	0	2,508	25	70	2,413
2026	633	587	895	0	2,115	21	59	2,035
2027	532	496	758	0	1,786	16	50	1,720
2028	447	420	642	0	1,509	13	43	1,453
2029	376	357	544	0	1,277	12	36	1,229
2030	317	302	461	0	1,080	9	30	1,041
2031	268	257	393	0	918	8	26	884
2032	220	213	325	0	758	7	22	729
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	9,987	9,161	13,986	0	33,134	349	926	31,859
Remainder	0	0	0	0	0	0	0	0
Total Future	9,987	9,161	13,986	0	33,134	349	926	31,859

DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
Period	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	0	0	0	623	623	4,837	4,837	4,611
2021	0	0	0	524	524	4,064	8,901	3,506
2022	0	0	0	462	462	3,581	12,482	2,798
2023	0	0	0	388	388	3,015	15,497	2,130
2024	0	0	0	328	328	2,533	18,030	1,623
2025	0	0	0	276	276	2,137	20,167	1,237
2026	0	0	0	233	233	1,802	21,969	945
2027	0	0	0	197	197	1,523	23,492	723
2028	0	0	0	166	166	1,287	24,779	553
2029	0	0	0	142	142	1,087	25,866	423
2030	0	0	0	119	119	922	26,788	324
2031	0	0	0	102	102	782	27,570	249
2032	0	0	0	84	84	645	28,215	187
2033	0	0	800	0	800	-800	27,415	-209
2034	0	0	0	0	0	0	27,415	0
Sub-Total	0	0	800	3,644	4,444	27,415		19,100
Remainder	0	0	0	0	0	0	27,415	0
Total Future	0	0	800	3,644	4,444	27,415		19,100



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SOUTH TOURNAISIAN  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	19,100
							12.00%	17,940
							15.00%	16,417
							20.00%	14,343
							25.00%	12,707

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	4	34,444	50,560	972	32,812	48,164	843	53.03	2.83
2021	4	28,790	42,489	817	27,429	40,480	709	53.03	2.83
2022	4	24,097	35,742	688	24,098	35,745	625	53.03	2.83
2023	4	20,191	30,099	578	20,190	30,097	527	53.03	2.83
2024	4	16,930	25,371	487	16,929	25,372	444	53.03	2.83
2025	4	14,206	21,410	413	14,207	21,409	375	53.03	2.83
2026	4	11,930	18,087	349	11,929	18,086	315	53.03	2.83
2027	4	10,024	15,299	294	10,026	15,298	269	53.03	2.83
2028	4	8,434	12,953	250	8,432	12,954	225	53.03	2.83
2029	4	7,099	10,982	210	7,099	10,983	193	53.03	2.83
2030	4	5,981	9,322	179	5,982	9,323	163	53.03	2.83
2031	4	5,044	7,924	152	5,046	7,925	139	53.03	2.83
2032	4	4,258	6,743	130	4,154	6,576	115	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		191,428	286,981	5,519	188,333	282,412	4,942	53.03	2.83
Cumulative		1,163,220	0	15,323					
Ultimate		1,354,648	286,981	20,842					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,740	1,562	2,385	0	5,687	69	158	5,460
2021	1,455	1,314	2,005	0	4,774	53	133	4,588
2022	1,277	1,159	1,770	0	4,206	46	117	4,043
2023	1,071	977	1,491	0	3,539	38	98	3,403
2024	898	823	1,256	0	2,977	32	84	2,861
2025	753	694	1,061	0	2,508	25	70	2,413
2026	633	587	895	0	2,115	21	59	2,035
2027	532	496	758	0	1,786	16	50	1,720
2028	447	420	642	0	1,509	13	43	1,453
2029	376	357	544	0	1,277	12	36	1,229
2030	317	302	461	0	1,080	9	30	1,041
2031	268	257	393	0	918	8	26	884
2032	220	213	325	0	758	7	22	729
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	9,987	9,161	13,986	0	33,134	349	926	31,859
Remainder	0	0	0	0	0	0	0	0
Total Future	9,987	9,161	13,986	0	33,134	349	926	31,859

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	0	623	623	4,837	4,837	4,611	
2021	0	0	0	524	524	4,064	8,901	3,506	
2022	0	0	0	462	462	3,581	12,482	2,798	
2023	0	0	0	388	388	3,015	15,497	2,130	
2024	0	0	0	328	328	2,533	18,030	1,623	
2025	0	0	0	276	276	2,137	20,167	1,237	
2026	0	0	0	233	233	1,802	21,969	945	
2027	0	0	0	197	197	1,523	23,492	723	
2028	0	0	0	166	166	1,287	24,779	553	
2029	0	0	0	142	142	1,087	25,866	423	
2030	0	0	0	119	119	922	26,788	324	
2031	0	0	0	102	102	782	27,570	249	
2032	0	0	0	84	84	645	28,215	187	
2033	0	0	800	0	800	-800	27,415	-209	
2034	0	0	0	0	0	0	27,415	0	
Sub-Total	0	0	800	3,644	4,444	27,415		19,100	
Remainder	0	0	0	0	0	0	27,415	0	
Total Future	0	0	800	3,644	4,444	27,415		19,100	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SOUTH TOURNAISIAN  
TOTAL PROVED NON PRODUCING

PROVED  
NON PRODUCING

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	0
FINAL								12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SOUTH TOURNAISIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0		0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH WELL 23 (SOUTH TOURNAISIAN)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	7,069
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	6,653
REMARKS								15.00% -	6,105
								20.00% -	5,353
								25.00% -	4,757

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	18,862	26,658	513	17,969	25,395	444	53.03	2.83
2021	1	15,468	21,859	420	14,736	20,826	365	53.03	2.83
2022	1	12,683	17,925	345	12,683	17,925	314	53.03	2.83
2023	1	10,400	14,698	282	10,400	14,698	257	53.03	2.83
2024	1	8,528	12,053	232	8,528	12,053	211	53.03	2.83
2025	1	6,993	9,883	190	6,994	9,883	173	53.03	2.83
2026	1	5,735	8,104	156	5,734	8,104	141	53.03	2.83
2027	1	4,702	6,646	128	4,702	6,645	117	53.03	2.83
2028	1	3,856	5,449	105	3,856	5,450	95	53.03	2.83
2029	1	3,161	4,468	86	3,161	4,468	78	53.03	2.83
2030	1	2,593	3,664	70	2,593	3,664	64	53.03	2.83
2031	1	2,126	3,005	58	2,126	3,005	53	53.03	2.83
2032	1	1,743	2,463	47	1,701	2,403	42	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		96,850	136,875	2,632	95,183	134,519	2,354	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		96,850	136,875	2,632	95,183	134,519	2,354	53.03	2.83
Cumulative		625,191	0	8,278	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		722,041	136,875	10,910					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	953	824	1,258	0	3,035	38	83	2,914
2021	781	675	1,031	0	2,487	28	69	2,390
2022	673	582	888	0	2,143	24	58	2,061
2023	551	477	728	0	1,756	20	48	1,688
2024	453	391	597	0	1,441	16	40	1,385
2025	371	320	489	0	1,180	12	32	1,136
2026	304	263	401	0	968	10	27	931
2027	249	216	330	0	795	8	22	765
2028	204	177	269	0	650	6	18	626
2029	168	144	222	0	534	5	14	515
2030	138	119	181	0	438	4	12	422
2031	112	98	149	0	359	4	10	345
2032	91	78	119	0	288	2	8	278
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	5,048	4,364	6,662	0	16,074	177	441	15,456
Remainder	0	0	0	0	0	0	0	0
Total Future	5,048	4,364	6,662	0	16,074	177	441	15,456

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	578	0	156	330	1,064	1,850	1,850	1,764
2021	533	0	86	271	890	1,500	3,350	1,297
2022	397	0	128	233	758	1,303	4,653	1,015
2023	247	0	112	192	551	1,137	5,790	805
2024	175	0	63	156	394	991	6,781	634
2025	141	0	62	129	332	804	7,585	466
2026	111	0	25	105	241	690	8,275	363
2027	103	0	33	87	223	542	8,817	257
2028	99	0	23	71	193	433	9,250	187
2029	94	0	24	58	176	339	9,589	132
2030	91	0	14	47	152	270	9,859	95
2031	86	0	21	39	146	199	10,058	64
2032	87	0	12	32	131	147	10,205	42
2033	0	0	200	0	200	-200	10,005	-52
2034	0	0	0	0	0	0	10,005	0
Sub-Total	2,742	0	959	1,750	5,451	10,005		7,069
Remainder	0	0	0	0	0	0	10,005	0
Total Future	2,742	0	959	1,750	5,451	10,005		7,069



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH WELL 401 (SOUTH TOURNAISIAN)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	475
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	453
REMARKS								15.00%	421
								20.00%	374
								25.00%	334

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	1,174	1,843	35	1,118	1,756	31	53.03	2.83
2021	1	998	1,567	31	951	1,492	26	53.03	2.83
2022	1	848	1,331	25	848	1,332	23	53.03	2.83
2023	1	721	1,132	22	721	1,132	20	53.03	2.83
2024	1	613	962	18	613	962	17	53.03	2.83
2025	1	521	818	16	521	817	14	53.03	2.83
2026	1	443	695	14	443	695	12	53.03	2.83
2027	1	376	591	11	376	591	11	53.03	2.83
2028	1	320	502	10	320	502	8	53.03	2.83
2029	1	272	427	8	272	427	8	53.03	2.83
2030	1	231	362	7	231	363	6	53.03	2.83
2031	1	196	309	6	197	309	6	53.03	2.83
2032	1	167	262	5	163	255	4	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		6,880	10,801	208	6,774	10,633	186	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		6,880	10,801	208	6,774	10,633	186	53.03	2.83
Cumulative		167,665	0	1,845	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		174,545	10,801	2,053	SHRINKAGE FACTOR = 9.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	59	57	87	0	203	2	6	195
2021	51	48	74	0	173	2	5	166
2022	45	44	66	0	155	2	4	149
2023	38	36	56	0	130	1	4	125
2024	32	31	48	0	111	1	3	107
2025	28	27	40	0	95	1	3	91
2026	24	23	34	0	81	1	2	78
2027	20	19	30	0	69	1	2	66
2028	16	16	25	0	57	0	1	56
2029	15	14	21	0	50	1	2	47
2030	12	12	18	0	42	0	1	41
2031	11	10	15	0	36	0	1	35
2032	8	8	13	0	29	0	1	28
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	359	345	527	0	1,231	12	35	1,184
Remainder	0	0	0	0	0	0	0	0
Total Future	359	345	527	0	1,231	12	35	1,184

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	39	0	10	23	72	123	123	118
2021	37	0	6	19	62	104	227	90
2022	28	0	10	17	55	94	321	72
2023	18	0	8	14	40	85	406	60
2024	14	0	5	13	32	75	481	49
2025	11	0	5	10	26	65	546	37
2026	9	0	2	9	20	58	604	30
2027	9	0	3	8	20	46	650	23
2028	9	0	2	6	17	39	689	16
2029	9	0	2	6	17	30	719	12
2030	8	0	1	4	13	28	747	9
2031	9	0	2	4	15	20	767	7
2032	9	0	2	3	14	14	781	4
2033	0	0	200	0	200	-200	581	-52
2034	0	0	0	0	0	0	581	0
Sub-Total	209	0	258	136	603	581		475
Remainder	0	0	0	0	0	0	581	0
Total Future	209	0	258	136	603	581		475





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH WELL 404 (SOUTH TOURNAISIAN)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	4,762
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	4,460
REMARKS								15.00% -	4,065
								20.00% -	3,528
								25.00% -	3,106

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	12,183	15,781	303	11,606	15,033	263	53.03	2.83
2021	1	10,356	13,413	258	9,866	12,779	224	53.03	2.83
2022	1	8,802	11,401	220	8,803	11,402	199	53.03	2.83
2023	1	7,482	9,692	186	7,482	9,691	170	53.03	2.83
2024	1	6,360	8,237	158	6,359	8,238	144	53.03	2.83
2025	1	5,406	7,002	135	5,406	7,002	123	53.03	2.83
2026	1	4,595	5,952	115	4,595	5,951	104	53.03	2.83
2027	1	3,905	5,059	97	3,906	5,059	88	53.03	2.83
2028	1	3,320	4,300	83	3,319	4,300	75	53.03	2.83
2029	1	2,822	3,655	70	2,822	3,655	64	53.03	2.83
2030	1	2,398	3,107	60	2,399	3,107	55	53.03	2.83
2031	1	2,039	2,640	50	2,039	2,641	46	53.03	2.83
2032	1	1,733	2,245	44	1,690	2,189	38	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		71,401	92,484	1,779	70,292	91,047	1,593	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		71,401	92,484	1,779	70,292	91,047	1,593	53.03	2.83
Cumulative		300,679	0	3,927	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		372,080	92,484	5,706					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	615	488	745	0	1,848	25	49	1,774
2021	524	414	632	0	1,570	18	42	1,510
2022	466	370	565	0	1,401	17	38	1,346
2023	397	314	480	0	1,191	14	31	1,146
2024	337	268	408	0	1,013	12	27	974
2025	287	227	347	0	861	10	23	828
2026	244	193	295	0	732	8	20	704
2027	207	164	250	0	621	6	16	599
2028	176	140	213	0	529	5	15	509
2029	150	118	181	0	449	5	11	433
2030	127	101	154	0	382	4	11	367
2031	108	86	131	0	325	3	8	314
2032	90	71	108	0	269	3	8	258
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,728	2,954	4,509	0	11,191	130	299	10,762
Remainder	0	0	0	0	0	0	0	0
Total Future	3,728	2,954	4,509	0	11,191	130	299	10,762

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	353	0	96	198	647	1,127	1,127	1,076
2021	337	0	54	168	559	951	2,078	819
2022	260	0	84	150	494	852	2,930	666
2023	168	0	76	128	372	774	3,704	547
2024	123	0	45	109	277	697	4,401	447
2025	103	0	45	92	240	588	4,989	340
2026	84	0	19	78	181	523	5,512	274
2027	81	0	26	67	174	425	5,937	202
2028	80	0	19	57	156	353	6,290	152
2029	79	0	20	48	147	286	6,576	111
2030	81	0	12	41	134	233	6,809	83
2031	77	0	19	34	130	184	6,993	58
2032	82	0	11	29	122	136	7,129	39
2033	0	0	200	0	200	-200	6,929	-52
2034	0	0	0	0	0	0	6,929	0
Sub-Total	1,908	0	726	1,199	3,833	6,929		4,762
Remainder	0	0	0	0	0	0	6,929	0
Total Future	1,908	0	726	1,199	3,833	6,929		4,762



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH WELL 406 (SOUTH TOURNAISIAN)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	1,801
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	1,676
REMARKS								15.00%	1,512
								20.00%	1,291
								25.00%	1,120

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	2,225	6,278	121	2,119	5,980	105	53.03	2.83
2021	1	1,968	5,650	108	1,876	5,383	94	53.03	2.83
2022	1	1,764	5,085	98	1,764	5,086	89	53.03	2.83
2023	1	1,588	4,577	88	1,587	4,576	80	53.03	2.83
2024	1	1,429	4,119	79	1,429	4,119	72	53.03	2.83
2025	1	1,286	3,707	72	1,286	3,707	65	53.03	2.83
2026	1	1,157	3,336	64	1,157	3,336	58	53.03	2.83
2027	1	1,041	3,003	58	1,042	3,003	53	53.03	2.83
2028	1	938	2,702	52	937	2,702	47	53.03	2.83
2029	1	844	2,432	46	844	2,433	43	53.03	2.83
2030	1	759	2,189	42	759	2,189	38	53.03	2.83
2031	1	683	1,970	38	684	1,970	34	53.03	2.83
2032	1	615	1,773	34	600	1,729	31	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		16,297	46,821	900	16,084	46,213	809	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		16,297	46,821	900	16,084	46,213	809	53.03	2.83
Cumulative		69,685	0	1,273	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		85,982	46,821	2,173					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	112	194	296	0	602	4	20	578
2021	100	175	267	0	542	4	17	521
2022	93	165	252	0	510	3	17	490
2023	85	148	226	0	459	3	15	441
2024	75	134	204	0	413	3	13	397
2025	69	120	184	0	373	2	13	358
2026	61	108	165	0	334	2	11	321
2027	55	98	149	0	302	2	9	291
2028	50	87	134	0	271	2	9	260
2029	45	79	120	0	244	1	8	235
2030	40	71	108	0	219	1	7	211
2031	36	64	98	0	198	1	7	190
2032	32	56	86	0	174	1	6	167
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	853	1,499	2,289	0	4,641	29	152	4,460
Remainder	0	0	0	0	0	0	0	0
Total Future	853	1,499	2,289	0	4,641	29	152	4,460

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	
2020	113	0	31	72	216	362	362	345
2021	115	0	18	66	199	322	684	278
2022	93	0	30	61	184	306	990	238
2023	63	0	30	55	148	293	1,283	207
2024	49	0	17	50	116	281	1,564	180
2025	44	0	20	45	109	249	1,813	144
2026	38	0	8	40	86	235	2,048	123
2027	39	0	13	37	89	202	2,250	97
2028	40	0	9	32	81	179	2,429	76
2029	43	0	11	30	84	151	2,580	59
2030	45	0	7	26	78	133	2,713	47
2031	46	0	11	24	81	109	2,822	35
2032	52	0	7	21	80	87	2,909	25
2033	0	0	200	0	200	-200	2,709	-53
2034	0	0	0	0	0	0	2,709	0
Sub-Total	780	0	412	559	1,751	2,709		1,801
Remainder	0	0	0	0	0	0	2,709	0
Total Future	780	0	412	559	1,751	2,709		1,801



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BASHKIRIAN  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	46,359
							12.00%	41,984
							15.00%	36,446
							20.00%	29,340
							25.00%	24,159

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	163,518	6,427	83	155,772	6,123	59	53.03	2.83
2021	2	133,613	5,107	65	127,297	4,865	47	53.03	2.83
2022	2	109,836	4,083	52	109,835	4,083	39	53.03	2.83
2023	3	150,223	5,047	65	150,223	5,047	48	53.03	2.83
2024	4	380,928	11,728	151	380,928	11,728	114	53.03	2.83
2025	4	316,696	9,690	124	316,696	9,690	92	53.03	2.83
2026	4	253,332	7,713	99	253,332	7,713	75	53.03	2.83
2027	4	202,992	6,149	79	202,992	6,149	58	53.03	2.83
2028	4	162,963	4,909	62	162,963	4,909	48	53.03	2.83
2029	4	131,098	3,928	50	131,098	3,928	37	53.03	2.83
2030	4	105,708	3,146	41	105,708	3,146	31	53.03	2.83
2031	4	85,451	2,527	32	85,451	2,527	24	53.03	2.83
2032	4	69,271	2,034	26	67,498	1,981	20	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		2,265,629	72,488	929	2,249,793	71,889	692	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		2,265,629	72,488	929	2,249,793	71,889	692	53.03	2.83
Cumulative		1,618,046	0	802					
Ultimate		3,883,675	72,488	1,731					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	8,261	199	167	0	8,627	330	15	8,282
2021	6,750	157	132	0	7,039	243	11	6,785
2022	5,825	133	111	0	6,069	209	10	5,850
2023	7,966	164	137	0	8,267	286	12	7,969
2024	20,201	380	320	0	20,901	838	28	20,035
2025	16,794	314	263	0	17,371	744	23	16,604
2026	13,434	251	210	0	13,895	591	19	13,285
2027	10,765	199	167	0	11,131	433	15	10,683
2028	8,642	159	134	0	8,935	312	11	8,612
2029	6,952	128	107	0	7,187	240	10	6,937
2030	5,606	102	86	0	5,794	190	7	5,597
2031	4,531	82	68	0	4,681	148	6	4,527
2032	3,580	64	54	0	3,698	113	5	3,580
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	119,307	2,332	1,956	0	123,595	4,677	172	118,746
Remainder	0	0	0	0	0	0	0	0
Total Future	119,307	2,332	1,956	0	123,595	4,677	172	118,746

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	632	0	461	445	1,538	6,744	6,744	6,433	
2021	574	0	241	363	1,178	5,607	12,351	4,841	
2022	419	0	422	311	1,152	4,698	17,049	3,670	
2023	719	0	13,574	423	14,716	-6,747	10,302	-4,622	
2024	2,472	0	224	1,062	3,758	16,277	26,579	10,401	
2025	2,041	0	221	882	3,144	13,460	40,039	7,801	
2026	1,488	0	87	706	2,281	11,004	51,043	5,775	
2027	1,359	0	122	565	2,046	8,637	59,680	4,103	
2028	1,258	0	84	453	1,795	6,817	66,497	2,931	
2029	1,170	0	90	365	1,625	5,312	71,809	2,068	
2030	1,082	0	54	294	1,430	4,167	75,976	1,468	
2031	1,019	0	87	237	1,343	3,184	79,160	1,016	
2032	975	0	52	188	1,215	2,365	81,525	684	
2033	0	0	800	0	800	-800	80,725	-210	
2034	0	0	0	0	0	0	80,725	0	
Sub-Total	15,208	0	16,519	6,294	38,021	80,725		46,359	
Remainder	0	0	0	0	0	0	80,725	0	
Total Future	15,208	0	16,519	6,294	38,021	80,725		46,359	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BASHKIRIAN  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	27,216
							12.00%	25,545
							15.00%	23,362
							20.00%	20,405
							25.00%	18,087

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	163,518	6,427	83	155,772	6,123	59	53.03	2.83
2021	2	133,613	5,107	65	127,297	4,865	47	53.03	2.83
2022	2	109,836	4,083	52	109,835	4,083	39	53.03	2.83
2023	2	90,804	3,282	42	90,804	3,282	31	53.03	2.83
2024	2	75,477	2,653	35	75,477	2,653	26	53.03	2.83
2025	2	63,066	2,155	27	63,066	2,155	20	53.03	2.83
2026	2	52,965	1,761	23	52,965	1,761	18	53.03	2.83
2027	2	44,702	1,446	18	44,702	1,446	13	53.03	2.83
2028	2	37,913	1,195	15	37,913	1,195	12	53.03	2.83
2029	2	32,309	992	13	32,309	992	9	53.03	2.83
2030	2	27,665	828	11	27,665	828	8	53.03	2.83
2031	2	23,797	695	9	23,797	695	7	53.03	2.83
2032	2	20,565	587	7	20,060	572	6	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		876,230	31,211	400	861,662	30,650	295	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		876,230	31,211	400	861,662	30,650	295	53.03	2.83
Cumulative		1,618,046	0	802					
Ultimate		2,494,276	31,211	1,202					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	8,261	199	167	0	8,627	330	15	8,282
2021	6,750	157	132	0	7,039	243	11	6,785
2022	5,825	133	111	0	6,069	209	10	5,850
2023	4,815	106	89	0	5,010	172	8	4,830
2024	4,003	86	73	0	4,162	141	6	4,015
2025	3,344	70	58	0	3,472	113	5	3,354
2026	2,809	57	48	0	2,914	91	4	2,819
2027	2,370	47	40	0	2,457	73	4	2,380
2028	2,011	39	32	0	2,082	60	3	2,019
2029	1,713	32	27	0	1,772	52	2	1,718
2030	1,467	27	23	0	1,517	44	2	1,471
2031	1,262	23	18	0	1,303	38	2	1,263
2032	1,064	18	16	0	1,098	32	1	1,065
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,694	994	834	0	47,522	1,598	73	45,851
Remainder	0	0	0	0	0	0	0	0
Total Future	45,694	994	834	0	47,522	1,598	73	45,851

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	632	0	171	445	1,248	7,034	7,034	6,708
2021	574	0	92	363	1,029	5,756	12,790	4,968
2022	419	0	135	311	865	4,985	17,775	3,893
2023	256	0	116	257	629	4,201	21,976	2,972
2024	177	0	63	214	454	3,561	25,537	2,278
2025	141	0	62	177	380	2,974	28,511	1,724
2026	108	0	24	149	281	2,538	31,049	1,330
2027	99	0	33	125	257	2,123	33,172	1,009
2028	93	0	21	106	220	1,799	34,971	773
2029	87	0	22	90	199	1,519	36,490	591
2030	83	0	12	77	172	1,299	37,789	457
2031	75	0	19	66	160	1,103	38,892	352
2032	76	0	10	56	142	923	39,815	266
2033	0	0	400	0	400	-400	39,415	-105
2034	0	0	0	0	0	0	39,415	0
Sub-Total	2,820	0	1,180	2,436	6,436	39,415		27,216
Remainder	0	0	0	0	0	0	39,415	0
Total Future	2,820	0	1,180	2,436	6,436	39,415		27,216



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BASHKIRIAN  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 27,216
								12.00% - 25,545
								15.00% - 23,362
								20.00% - 20,405
								25.00% - 18,087

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	163,518	6,427	83	155,772	6,123	59	53.03	2.83
2021	2	133,613	5,107	65	127,297	4,865	47	53.03	2.83
2022	2	109,836	4,083	52	109,835	4,083	39	53.03	2.83
2023	2	90,804	3,282	42	90,804	3,282	31	53.03	2.83
2024	2	75,477	2,653	35	75,477	2,653	26	53.03	2.83
2025	2	63,066	2,155	27	63,066	2,155	20	53.03	2.83
2026	2	52,965	1,761	23	52,965	1,761	18	53.03	2.83
2027	2	44,702	1,446	18	44,702	1,446	13	53.03	2.83
2028	2	37,913	1,195	15	37,913	1,195	12	53.03	2.83
2029	2	32,309	992	13	32,309	992	9	53.03	2.83
2030	2	27,665	828	11	27,665	828	8	53.03	2.83
2031	2	23,797	695	9	23,797	695	7	53.03	2.83
2032	2	20,565	587	7	20,060	572	6	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		876,230	31,211	400	861,662	30,650	295	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		876,230	31,211	400	861,662	30,650	295	53.03	2.83
Cumulative		1,618,046	0	802					
Ultimate		2,494,276	31,211	1,202					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	8,261	199	167	0	8,627	330	15	8,282
2021	6,750	157	132	0	7,039	243	11	6,785
2022	5,825	133	111	0	6,069	209	10	5,850
2023	4,815	106	89	0	5,010	172	8	4,830
2024	4,003	86	73	0	4,162	141	6	4,015
2025	3,344	70	58	0	3,472	113	5	3,354
2026	2,809	57	48	0	2,914	91	4	2,819
2027	2,370	47	40	0	2,457	73	4	2,380
2028	2,011	39	32	0	2,082	60	3	2,019
2029	1,713	32	27	0	1,772	52	2	1,718
2030	1,467	27	23	0	1,517	44	2	1,471
2031	1,262	23	18	0	1,303	38	2	1,263
2032	1,064	18	16	0	1,098	32	1	1,065
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,694	994	834	0	47,522	1,598	73	45,851
Remainder	0	0	0	0	0	0	0	0
Total Future	45,694	994	834	0	47,522	1,598	73	45,851

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	632	0	171	445	1,248	7,034	7,034	6,708
2021	574	0	92	363	1,029	5,756	12,790	4,968
2022	419	0	135	311	865	4,985	17,775	3,893
2023	256	0	116	257	629	4,201	21,976	2,972
2024	177	0	63	214	454	3,561	25,537	2,278
2025	141	0	62	177	380	2,974	28,511	1,724
2026	108	0	24	149	281	2,538	31,049	1,330
2027	99	0	33	125	257	2,123	33,172	1,009
2028	93	0	21	106	220	1,799	34,971	773
2029	87	0	22	90	199	1,519	36,490	591
2030	83	0	12	77	172	1,299	37,789	457
2031	75	0	19	66	160	1,103	38,892	352
2032	76	0	10	56	142	923	39,815	266
2033	0	0	400	0	400	-400	39,415	-105
2034	0	0	0	0	0	0	39,415	0
Sub-Total	2,820	0	1,180	2,436	6,436	39,415		27,216
Remainder	0	0	0	0	0	0	39,415	0
Total Future	2,820	0	1,180	2,436	6,436	39,415		27,216



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BASHKIRIAN  
TOTAL PROVED UNDEVELOPED

PROVED  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M
								COMPOUNDED
								MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0		0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BASHKIRIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 19,143
								12.00% - 16,439
								15.00% - 13,084
								20.00% - 8,934
								25.00% - 6,073

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	59,419	1,765	23	59,419	1,765	17	53.03	2.83
2024	2	305,451	9,075	116	305,451	9,075	88	53.03	2.83
2025	2	253,630	7,535	97	253,630	7,535	72	53.03	2.83
2026	2	200,367	5,952	76	200,367	5,952	57	53.03	2.83
2027	2	158,290	4,703	61	158,290	4,703	45	53.03	2.83
2028	2	125,050	3,714	47	125,050	3,714	36	53.03	2.83
2029	2	98,789	2,936	37	98,789	2,936	28	53.03	2.83
2030	2	78,043	2,318	30	78,043	2,318	23	53.03	2.83
2031	2	61,654	1,832	23	61,654	1,832	17	53.03	2.83
2032	2	48,706	1,447	19	47,438	1,409	14	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,389,399	41,277	529	1,388,131	41,239	397	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,389,399	41,277	529	1,388,131	41,239	397	53.03	2.83
Cumulative		0	0	0					
Ultimate		1,389,399	41,277	529					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	3,151	57	48	0	3,256	113	4	3,139
2024	16,198	295	247	0	16,740	699	22	16,019
2025	13,450	244	205	0	13,899	630	18	13,251
2026	10,626	193	162	0	10,981	500	15	10,466
2027	8,394	153	128	0	8,675	360	11	8,304
2028	6,631	120	101	0	6,852	252	9	6,591
2029	5,239	95	80	0	5,414	188	7	5,219
2030	4,138	76	63	0	4,277	146	5	4,126
2031	3,270	59	50	0	3,379	111	5	3,263
2032	2,516	46	38	0	2,600	80	3	2,517
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	73,613	1,338	1,122	0	76,073	3,079	99	72,895
Remainder	0	0	0	0	0	0	0	0
Total Future	73,613	1,338	1,122	0	76,073	3,079	99	72,895

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	290	0	290	-290	-290	-275
2021	0	0	149	0	149	-149	-439	-128
2022	0	0	286	0	286	-286	-725	-222
2023	463	0	13,459	165	14,087	-10,948	-11,673	-7,594
2024	2,294	0	160	849	3,303	12,716	1,043	8,123
2025	1,902	0	160	705	2,767	10,484	11,527	6,077
2026	1,378	0	62	557	1,997	8,469	19,996	4,444
2027	1,261	0	90	440	1,791	6,513	26,509	3,095
2028	1,165	0	63	347	1,575	5,016	31,525	2,158
2029	1,083	0	68	275	1,426	3,793	35,318	1,477
2030	999	0	42	217	1,258	2,868	38,186	1,011
2031	944	0	68	171	1,183	2,080	40,266	664
2032	899	0	42	132	1,073	1,444	41,710	418
2033	0	0	400	0	400	-400	41,310	-105
2034	0	0	0	0	0	0	41,310	0
Sub-Total	12,388	0	15,339	3,858	31,585	41,310		19,143
Remainder	0	0	0	0	0	0	41,310	0
Total Future	12,388	0	15,339	3,858	31,585	41,310		19,143



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST BASHKIRIAN  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 7,365
								12.00% - 6,950
								15.00% - 6,401
								20.00% - 5,643
								25.00% - 5,037

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	58,049	3,242	42	55,299	3,089	30	53.03	2.83
2021	1	46,729	2,545	32	44,520	2,424	23	53.03	2.83
2022	1	37,617	1,998	26	37,617	1,998	19	53.03	2.83
2023	1	30,282	1,569	20	30,282	1,569	15	53.03	2.83
2024	1	24,377	1,231	16	24,377	1,231	12	53.03	2.83
2025	1	19,623	966	12	19,623	966	9	53.03	2.83
2026	1	15,797	759	10	15,797	759	8	53.03	2.83
2027	1	12,716	595	7	12,716	595	5	53.03	2.83
2028	1	10,237	468	6	10,237	468	5	53.03	2.83
2029	1	8,240	367	5	8,240	367	3	53.03	2.83
2030	1	6,634	288	4	6,634	288	3	53.03	2.83
2031	1	5,340	226	3	5,340	226	2	53.03	2.83
2032	1	4,299	178	2	4,193	173	2	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Cumulative		920,584	0	802					
Ultimate		1,200,524	14,432	987					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,933	100	84	0	3,117	117	7	2,993
2021	2,360	79	66	0	2,505	85	6	2,414
2022	1,995	65	54	0	2,114	72	5	2,037
2023	1,606	51	43	0	1,700	57	4	1,639
2024	1,293	39	34	0	1,366	46	3	1,317
2025	1,040	32	26	0	1,098	35	2	1,061
2026	838	24	21	0	883	27	2	854
2027	674	20	16	0	710	21	1	688
2028	543	15	12	0	570	16	1	553
2029	437	12	10	0	459	13	1	445
2030	352	9	8	0	369	11	1	357
2031	283	8	6	0	297	8	0	289
2032	223	5	5	0	233	7	1	225
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	14,577	459	385	0	15,421	515	34	14,872
Remainder	0	0	0	0	0	0	0	0
Total Future	14,577	459	385	0	15,421	515	34	14,872

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	632	0	171	165	968	2,025	2,025	1,932
2021	574	0	92	133	799	1,615	3,640	1,395
2022	419	0	135	112	666	1,371	5,011	1,071
2023	256	0	116	89	461	1,178	6,189	833
2024	177	0	63	72	312	1,005	7,194	644
2025	141	0	62	58	261	800	7,994	464
2026	108	0	24	46	178	676	8,670	354
2027	99	0	33	37	169	519	9,189	247
2028	93	0	21	30	144	409	9,598	176
2029	87	0	22	24	133	312	9,910	122
2030	83	0	12	19	114	243	10,153	86
2031	75	0	19	15	109	180	10,333	56
2032	76	0	10	12	98	127	10,460	37
2033	0	0	200	0	200	-200	10,260	-52
2034	0	0	0	0	0	0	10,260	0
Sub-Total	2,820	0	980	812	4,612	10,260		7,365
Remainder	0	0	0	0	0	0	10,260	0
Total Future	2,820	0	980	812	4,612	10,260		7,365





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST BASHKIRIAN  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	7,365
							12.00%	6,950
							15.00%	6,401
							20.00%	5,643
							25.00%	5,037

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	58,049	3,242	42	55,299	3,089	30	53.03	2.83
2021	1	46,729	2,545	32	44,520	2,424	23	53.03	2.83
2022	1	37,617	1,998	26	37,617	1,998	19	53.03	2.83
2023	1	30,282	1,569	20	30,282	1,569	15	53.03	2.83
2024	1	24,377	1,231	16	24,377	1,231	12	53.03	2.83
2025	1	19,623	966	12	19,623	966	9	53.03	2.83
2026	1	15,797	759	10	15,797	759	8	53.03	2.83
2027	1	12,716	595	7	12,716	595	5	53.03	2.83
2028	1	10,237	468	6	10,237	468	5	53.03	2.83
2029	1	8,240	367	5	8,240	367	3	53.03	2.83
2030	1	6,634	288	4	6,634	288	3	53.03	2.83
2031	1	5,340	226	3	5,340	226	2	53.03	2.83
2032	1	4,299	178	2	4,193	173	2	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Cumulative		920,584	0	802					
Ultimate		1,200,524	14,432	987					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,933	100	84	0	3,117	117	7	2,993
2021	2,360	79	66	0	2,505	85	6	2,414
2022	1,995	65	54	0	2,114	72	5	2,037
2023	1,606	51	43	0	1,700	57	4	1,639
2024	1,293	39	34	0	1,366	46	3	1,317
2025	1,040	32	26	0	1,098	35	2	1,061
2026	838	24	21	0	883	27	2	854
2027	674	20	16	0	710	21	1	688
2028	543	15	12	0	570	16	1	553
2029	437	12	10	0	459	13	1	445
2030	352	9	8	0	369	11	1	357
2031	283	8	6	0	297	8	0	289
2032	223	5	5	0	233	7	1	225
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	14,577	459	385	0	15,421	515	34	14,872
Remainder	0	0	0	0	0	0	0	0
Total Future	14,577	459	385	0	15,421	515	34	14,872

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	632	0	171	165	968	2,025	2,025	1,932
2021	574	0	92	133	799	1,615	3,640	1,395
2022	419	0	135	112	666	1,371	5,011	1,071
2023	256	0	116	89	461	1,178	6,189	833
2024	177	0	63	72	312	1,005	7,194	644
2025	141	0	62	58	261	800	7,994	464
2026	108	0	24	46	178	676	8,670	354
2027	99	0	33	37	169	519	9,189	247
2028	93	0	21	30	144	409	9,598	176
2029	87	0	22	24	133	312	9,910	122
2030	83	0	12	19	114	243	10,153	86
2031	75	0	19	15	109	180	10,333	56
2032	76	0	10	12	98	127	10,460	37
2033	0	0	200	0	200	-200	10,260	-52
2034	0	0	0	0	0	0	10,260	0
Sub-Total	2,820	0	980	812	4,612	10,260		7,365
Remainder	0	0	0	0	0	0	10,260	0
Total Future	2,820	0	980	812	4,612	10,260		7,365



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST BASHKIRIAN  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	-	7,365
							12.00%	-	6,950
							15.00%	-	6,401
							20.00%	-	5,643
							25.00%	-	5,037

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	58,049	3,242	42	55,299	3,089	30	53.03	2.83
2021	1	46,729	2,545	32	44,520	2,424	23	53.03	2.83
2022	1	37,617	1,998	26	37,617	1,998	19	53.03	2.83
2023	1	30,282	1,569	20	30,282	1,569	15	53.03	2.83
2024	1	24,377	1,231	16	24,377	1,231	12	53.03	2.83
2025	1	19,623	966	12	19,623	966	9	53.03	2.83
2026	1	15,797	759	10	15,797	759	8	53.03	2.83
2027	1	12,716	595	7	12,716	595	5	53.03	2.83
2028	1	10,237	468	6	10,237	468	5	53.03	2.83
2029	1	8,240	367	5	8,240	367	3	53.03	2.83
2030	1	6,634	288	4	6,634	288	3	53.03	2.83
2031	1	5,340	226	3	5,340	226	2	53.03	2.83
2032	1	4,299	178	2	4,193	173	2	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Cumulative		920,584	0	802					
Ultimate		1,200,524	14,432	987					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,933	100	84	0	3,117	117	7	2,993
2021	2,360	79	66	0	2,505	85	6	2,414
2022	1,995	65	54	0	2,114	72	5	2,037
2023	1,606	51	43	0	1,700	57	4	1,639
2024	1,293	39	34	0	1,366	46	3	1,317
2025	1,040	32	26	0	1,098	35	2	1,061
2026	838	24	21	0	883	27	2	854
2027	674	20	16	0	710	21	1	688
2028	543	15	12	0	570	16	1	553
2029	437	12	10	0	459	13	1	445
2030	352	9	8	0	369	11	1	357
2031	283	8	6	0	297	8	0	289
2032	223	5	5	0	233	7	1	225
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	14,577	459	385	0	15,421	515	34	14,872
Remainder	0	0	0	0	0	0	0	0
Total Future	14,577	459	385	0	15,421	515	34	14,872

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	632	0	171	165	968	2,025	2,025	1,932
2021	574	0	92	133	799	1,615	3,640	1,395
2022	419	0	135	112	666	1,371	5,011	1,071
2023	256	0	116	89	461	1,178	6,189	833
2024	177	0	63	72	312	1,005	7,194	644
2025	141	0	62	58	261	800	7,994	464
2026	108	0	24	46	178	676	8,670	354
2027	99	0	33	37	169	519	9,189	247
2028	93	0	21	30	144	409	9,598	176
2029	87	0	22	24	133	312	9,910	122
2030	83	0	12	19	114	243	10,153	86
2031	75	0	19	15	109	180	10,333	56
2032	76	0	10	12	98	127	10,460	37
2033	0	0	200	0	200	-200	10,260	-52
2034	0	0	0	0	0	0	10,260	0
Sub-Total	2,820	0	980	812	4,612	10,260		7,365
Remainder	0	0	0	0	0	0	10,260	0
Total Future	2,820	0	980	812	4,612	10,260		7,365



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST BASHKIRIAN  
TOTAL PROVED UNDEVELOPED

PROVED  
UNDEVELOPED

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	0
FINAL								12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST BASHKIRIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
WEST WELL 45 (WEST BASHKIRIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	7,365
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	6,950
REMARKS								15.00%	6,401
								20.00%	5,643
								25.00%	5,037

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	58,049	3,242	42	55,299	3,089	30	53.03	2.83
2021	1	46,729	2,545	32	44,520	2,424	23	53.03	2.83
2022	1	37,617	1,998	26	37,617	1,998	19	53.03	2.83
2023	1	30,282	1,569	20	30,282	1,569	15	53.03	2.83
2024	1	24,377	1,231	16	24,377	1,231	12	53.03	2.83
2025	1	19,623	966	12	19,623	966	9	53.03	2.83
2026	1	15,797	759	10	15,797	759	8	53.03	2.83
2027	1	12,716	595	7	12,716	595	5	53.03	2.83
2028	1	10,237	468	6	10,237	468	5	53.03	2.83
2029	1	8,240	367	5	8,240	367	3	53.03	2.83
2030	1	6,634	288	4	6,634	288	3	53.03	2.83
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2032	1	4,299	178	2	4,193	173	2	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		279,940	14,432	185	274,875	14,153	136	53.03	2.83
Cumulative		920,584	0	802	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 25.00 %				
Ultimate		1,200,524	14,432	987					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,933	100	84	0	3,117	117	7	2,993
2021	2,360	79	66	0	2,505	85	6	2,414
2022	1,995	65	54	0	2,114	72	5	2,037
2023	1,606	51	43	0	1,700	57	4	1,639
2024	1,293	39	34	0	1,366	46	3	1,317
2025	1,040	32	26	0	1,098	35	2	1,061
2026	838	24	21	0	883	27	2	854
2027	674	20	16	0	710	21	1	688
2028	543	15	12	0	570	16	1	553
2029	437	12	10	0	459	13	1	445
2030	352	9	8	0	369	11	1	357
2031	283	8	6	0	297	8	0	289
2032	223	5	5	0	233	7	1	225
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	14,577	459	385	0	15,421	515	34	14,872
Remainder	0	0	0	0	0	0	0	0
Total Future	14,577	459	385	0	15,421	515	34	14,872

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	632	0	171	165	968	2,025	2,025	1,932
2021	574	0	92	133	799	1,615	3,640	1,395
2022	419	0	135	112	666	1,371	5,011	1,071
2023	256	0	116	89	461	1,178	6,189	833
2024	177	0	63	72	312	1,005	7,194	644
2025	141	0	62	58	261	800	7,994	464
2026	108	0	24	46	178	676	8,670	354
2027	99	0	33	37	169	519	9,189	247
2028	93	0	21	30	144	409	9,598	176
2029	87	0	22	24	133	312	9,910	122
2030	83	0	12	19	114	243	10,153	86
2031	75	0	19	15	109	180	10,333	56
2032	76	0	10	12	98	127	10,460	37
2033	0	0	200	0	200	-200	10,260	-52
2034	0	0	0	0	0	0	10,260	0
Sub-Total	2,820	0	980	812	4,612	10,260		7,365
Remainder	0	0	0	0	0	0	10,260	0
Total Future	2,820	0	980	812	4,612	10,260		7,365



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 703 (WEST FILIPPOVSKI)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	598
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	576
REMARKS								15.00%	543
								20.00%	495
								25.00%	454

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	2,975	1,419	32	2,834	1,352	28	53.03	2.83
2021	1	1,719	802	18	1,638	764	16	53.03	2.83
2022	1	1,214	562	13	1,214	562	11	53.03	2.83
2023	1	939	432	10	938	432	9	53.03	2.83
2024	1	766	352	8	766	352	8	53.03	2.83
2025	1	646	297	7	647	297	6	53.03	2.83
2026	1	560	257	6	560	256	5	53.03	2.83
2027	1	494	225	5	493	226	5	53.03	2.83
2028	1	441	202	4	441	202	4	53.03	2.83
2029	1	397	182	4	397	181	4	53.03	2.83
2030	1	357	163	4	358	164	3	53.03	2.83
2031	1	321	147	4	321	147	3	53.03	2.83
2032	1	290	132	3	282	129	3	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		11,119	5,172	118	10,889	5,064	105	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		11,119	5,172	118	10,889	5,064	105	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		11,119	5,172	118					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	150	44	79	0	273	6	5	262
2021	87	25	45	0	157	3	3	151
2022	65	18	33	0	116	2	2	112
2023	49	14	25	0	88	2	1	85
2024	41	11	21	0	73	2	2	69
2025	34	10	17	0	61	1	1	59
2026	30	8	15	0	53	1	1	51
2027	26	8	13	0	47	1	0	46
2028	23	6	12	0	41	0	1	40
2029	22	6	11	0	39	1	1	37
2030	18	5	9	0	32	0	0	32
2031	17	5	9	0	31	1	1	29
2032	15	4	7	0	26	0	0	26
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	577	164	296	0	1,037	20	18	999
Remainder	0	0	0	0	0	0	0	0
Total Future	577	164	296	0	1,037	20	18	999

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	0	0	0	24	24	238	238	228
2021	0	0	0	14	14	137	375	118
2022	0	0	0	10	10	102	477	79
2023	0	0	0	8	8	77	554	56
2024	0	0	0	6	6	63	617	40
2025	0	0	0	5	5	54	671	31
2026	0	0	0	5	5	46	717	25
2027	0	0	0	4	4	42	759	19
2028	0	0	0	4	4	36	795	16
2029	0	0	0	3	3	34	829	13
2030	0	0	0	3	3	29	858	10
2031	0	0	0	3	3	26	884	9
2032	0	0	0	2	2	24	908	6
2033	0	0	200	0	200	-200	708	-52
2034	0	0	0	0	0	0	708	0
Sub-Total	0	0	200	91	291	708		598
Remainder	0	0	0	0	0	0	708	0
Total Future	0	0	200	91	291	708		598



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE BASHKIRIAN  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 19,851
								12.00% - 18,595
								15.00% - 16,961
								20.00% - 14,762
								25.00% - 13,050

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	105,469	3,185	41	100,473	3,034	29	53.03	2.83
2021	1	86,884	2,562	33	82,777	2,441	24	53.03	2.83
2022	1	72,219	2,085	26	72,218	2,085	20	53.03	2.83
2023	1	60,522	1,713	22	60,522	1,713	16	53.03	2.83
2024	1	51,100	1,422	19	51,100	1,422	14	53.03	2.83
2025	1	43,443	1,189	15	43,443	1,189	11	53.03	2.83
2026	1	37,168	1,002	13	37,168	1,002	10	53.03	2.83
2027	1	31,986	851	11	31,986	851	8	53.03	2.83
2028	1	27,676	727	9	27,676	727	7	53.03	2.83
2029	1	24,069	625	8	24,069	625	6	53.03	2.83
2030	1	21,031	540	7	21,031	540	5	53.03	2.83
2031	1	18,457	469	6	18,457	469	5	53.03	2.83
2032	1	16,266	409	5	15,867	399	4	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		596,290	16,779	215	586,787	16,497	159	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		596,290	16,779	215	586,787	16,497	159	53.03	2.83
Cumulative		697,462	0	0					
Ultimate		1,293,752	16,779	215					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	5,328	98	83	0	5,509	213	7	5,289
2021	4,390	80	66	0	4,536	158	6	4,372
2022	3,829	67	57	0	3,953	138	5	3,810
2023	3,210	56	46	0	3,312	114	4	3,194
2024	2,710	46	39	0	2,795	95	4	2,696
2025	2,304	39	32	0	2,375	78	2	2,295
2026	1,971	32	28	0	2,031	64	3	1,964
2027	1,696	28	23	0	1,747	52	2	1,693
2028	1,467	23	20	0	1,510	44	2	1,464
2029	1,277	20	17	0	1,314	39	1	1,274
2030	1,115	18	14	0	1,147	33	1	1,113
2031	979	15	13	0	1,007	30	1	976
2032	841	13	11	0	865	25	1	839
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	31,117	535	449	0	32,101	1,083	39	30,979
Remainder	0	0	0	0	0	0	0	0
Total Future	31,117	535	449	0	32,101	1,083	39	30,979

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	280	280	5,009	5,009	4,776
2021	0	0	0	230	230	4,142	9,151	3,574
2022	0	0	0	200	200	3,610	12,761	2,820
2023	0	0	0	167	167	3,027	15,788	2,139
2024	0	0	0	142	142	2,554	18,342	1,635
2025	0	0	0	119	119	2,176	20,518	1,260
2026	0	0	0	103	103	1,861	22,379	976
2027	0	0	0	88	88	1,605	23,984	762
2028	0	0	0	76	76	1,388	25,372	596
2029	0	0	0	66	66	1,208	26,580	470
2030	0	0	0	58	58	1,055	27,635	371
2031	0	0	0	51	51	925	28,560	295
2032	0	0	0	43	43	796	29,356	230
2033	0	0	200	0	200	-200	29,156	-53
2034	0	0	0	0	0	0	29,156	0
Sub-Total	0	0	200	1,623	1,823	29,156		19,851
Remainder	0	0	0	0	0	0	29,156	0
Total Future	0	0	200	1,623	1,823	29,156		19,851



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE BASHKIRIAN  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 19,143
								12.00% - 16,439
								15.00% - 13,084
								20.00% - 8,934
								25.00% - 6,073

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	59,419	1,765	23	59,419	1,765	17	53.03	2.83
2024	2	305,451	9,075	116	305,451	9,075	88	53.03	2.83
2025	2	253,630	7,535	97	253,630	7,535	72	53.03	2.83
2026	2	200,367	5,952	76	200,367	5,952	57	53.03	2.83
2027	2	158,290	4,703	61	158,290	4,703	45	53.03	2.83
2028	2	125,050	3,714	47	125,050	3,714	36	53.03	2.83
2029	2	98,789	2,936	37	98,789	2,936	28	53.03	2.83
2030	2	78,043	2,318	30	78,043	2,318	23	53.03	2.83
2031	2	61,654	1,832	23	61,654	1,832	17	53.03	2.83
2032	2	48,706	1,447	19	47,438	1,409	14	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,389,399	41,277	529	1,388,131	41,239	397	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,389,399	41,277	529	1,388,131	41,239	397	53.03	2.83
Cumulative		0	0	0					
Ultimate		1,389,399	41,277	529					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	3,151	57	48	0	3,256	113	4	3,139
2024	16,198	295	247	0	16,740	699	22	16,019
2025	13,450	244	205	0	13,899	630	18	13,251
2026	10,626	193	162	0	10,981	500	15	10,466
2027	8,394	153	128	0	8,675	360	11	8,304
2028	6,631	120	101	0	6,852	252	9	6,591
2029	5,239	95	80	0	5,414	188	7	5,219
2030	4,138	76	63	0	4,277	146	5	4,126
2031	3,270	59	50	0	3,379	111	5	3,263
2032	2,516	46	38	0	2,600	80	3	2,517
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	73,613	1,338	1,122	0	76,073	3,079	99	72,895
Remainder	0	0	0	0	0	0	0	0
Total Future	73,613	1,338	1,122	0	76,073	3,079	99	72,895

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	290	0	290	-290	-290	-275
2021	0	0	149	0	149	-149	-439	-128
2022	0	0	286	0	286	-286	-725	-222
2023	463	0	13,459	165	14,087	-10,948	-11,673	-7,594
2024	2,294	0	160	849	3,303	12,716	1,043	8,123
2025	1,902	0	160	705	2,767	10,484	11,527	6,077
2026	1,378	0	62	557	1,997	8,469	19,996	4,444
2027	1,261	0	90	440	1,791	6,513	26,509	3,095
2028	1,165	0	63	347	1,575	5,016	31,525	2,158
2029	1,083	0	68	275	1,426	3,793	35,318	1,477
2030	999	0	42	217	1,258	2,868	38,186	1,011
2031	944	0	68	171	1,183	2,080	40,266	664
2032	899	0	42	132	1,073	1,444	41,710	418
2033	0	0	400	0	400	-400	41,310	-105
2034	0	0	0	0	0	0	41,310	0
Sub-Total	12,388	0	15,339	3,858	31,585	41,310		19,143
Remainder	0	0	0	0	0	0	41,310	0
Total Future	12,388	0	15,339	3,858	31,585	41,310		19,143





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 54\_2 (NE BASHKIRIAN)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	9,310
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	7,968
REMARKS								15.00%	6,309
								20.00%	4,270
								25.00%	2,877

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	152,803	4,540	58	152,803	4,540	44	53.03	2.83
2025	1	133,038	3,952	51	133,038	3,952	38	53.03	2.83
2026	1	105,099	3,122	40	105,099	3,122	30	53.03	2.83
2027	1	83,029	2,467	32	83,029	2,467	23	53.03	2.83
2028	1	65,593	1,948	25	65,593	1,948	19	53.03	2.83
2029	1	51,818	1,540	19	51,818	1,540	15	53.03	2.83
2030	1	40,936	1,216	16	40,936	1,216	12	53.03	2.83
2031	1	32,340	961	12	32,340	961	9	53.03	2.83
2032	1	25,548	759	10	24,921	740	7	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		690,204	20,505	263	689,577	20,486	197	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		690,204	20,505	263	689,577	20,486	197	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 25.00 %				
Ultimate		690,204	20,505	263					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	8,103	147	124	0	8,374	349	11	8,014
2025	7,055	128	107	0	7,290	331	9	6,950
2026	5,574	102	85	0	5,761	262	8	5,491
2027	4,403	80	67	0	4,550	189	6	4,355
2028	3,478	63	53	0	3,594	132	5	3,457
2029	2,748	50	42	0	2,840	99	3	2,738
2030	2,171	39	33	0	2,243	76	3	2,164
2031	1,715	32	26	0	1,773	58	2	1,713
2032	1,321	24	20	0	1,365	43	2	1,320
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	36,568	665	557	0	37,790	1,539	49	36,202
Remainder	0	0	0	0	0	0	0	0
Total Future	36,568	665	557	0	37,790	1,539	49	36,202

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	0	0	144	0	144	-144	-144	-136	
2021	0	0	73	0	73	-73	-217	-63	
2022	0	0	142	0	142	-142	-359	-110	
2023	0	0	6,727	0	6,727	-6,727	-7,086	-4,540	
2024	1,145	0	80	425	1,650	6,364	-722	4,057	
2025	998	0	79	369	1,446	5,504	4,782	3,190	
2026	723	0	31	293	1,047	4,444	9,226	2,332	
2027	661	0	44	230	935	3,420	12,646	1,625	
2028	611	0	31	183	825	2,632	15,278	1,133	
2029	568	0	34	144	746	1,992	17,270	775	
2030	524	0	20	113	657	1,507	18,777	531	
2031	495	0	34	90	619	1,094	19,871	349	
2032	473	0	21	70	564	756	20,627	220	
2033	0	0	200	0	200	-200	20,427	-53	
2034	0	0	0	0	0	0	20,427	0	
Sub-Total	6,198	0	7,660	1,917	15,775	20,427		9,310	
Remainder	0	0	0	0	0	0	20,427	0	
Total Future	6,198	0	7,660	1,917	15,775	20,427		9,310	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 54\_1 (NE BASHKIRIAN)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	9,833
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	8,471
REMARKS								15.00%	6,775
								20.00%	4,664
								25.00%	3,196

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	59,419	1,765	23	59,419	1,765	17	53.03	2.83
2024	1	152,648	4,535	58	152,648	4,535	44	53.03	2.83
2025	1	120,592	3,583	46	120,592	3,583	34	53.03	2.83
2026	1	95,268	2,830	36	95,268	2,830	27	53.03	2.83
2027	1	75,261	2,236	29	75,261	2,236	22	53.03	2.83
2028	1	59,457	1,766	22	59,457	1,766	17	53.03	2.83
2029	1	46,971	1,396	18	46,971	1,396	13	53.03	2.83
2030	1	37,107	1,102	14	37,107	1,102	11	53.03	2.83
2031	1	29,314	871	11	29,314	871	8	53.03	2.83
2032	1	23,158	688	9	22,517	669	7	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		699,195	20,772	266	698,554	20,753	200	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		699,195	20,772	266	698,554	20,753	200	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 25.00 %				
Ultimate		699,195	20,772	266					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	3,151	57	48	0	3,256	113	4	3,139
2024	8,095	147	123	0	8,365	349	11	8,005
2025	6,395	117	98	0	6,610	300	9	6,301
2026	5,052	91	77	0	5,220	238	7	4,975
2027	3,991	73	61	0	4,125	171	5	3,949
2028	3,153	57	48	0	3,258	120	4	3,134
2029	2,491	46	38	0	2,575	89	3	2,483
2030	1,968	35	30	0	2,033	69	3	1,961
2031	1,554	29	24	0	1,607	53	2	1,552
2032	1,194	21	18	0	1,233	38	2	1,193
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	37,044	673	565	0	38,282	1,540	50	36,692
Remainder	0	0	0	0	0	0	0	0
Total Future	37,044	673	565	0	38,282	1,540	50	36,692

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	147	0	147	-147	-147	-139
2021	0	0	75	0	75	-75	-222	-65
2022	0	0	145	0	145	-145	-367	-112
2023	463	0	6,730	165	7,358	-4,219	-4,586	-3,054
2024	1,149	0	81	424	1,654	6,351	1,765	4,066
2025	904	0	81	336	1,321	4,980	6,745	2,887
2026	656	0	32	264	952	4,023	10,768	2,112
2027	599	0	45	210	854	3,095	13,863	1,470
2028	554	0	32	165	751	2,383	16,246	1,025
2029	515	0	34	130	679	1,804	18,050	702
2030	475	0	21	103	599	1,362	19,412	480
2031	449	0	35	82	566	986	20,398	315
2032	426	0	21	63	510	683	21,081	198
2033	0	0	200	0	200	-200	20,881	-52
2034	0	0	0	0	0	0	20,881	0
Sub-Total	6,190	0	7,679	1,942	15,811	20,881		9,833
Remainder	0	0	0	0	0	0	20,881	0
Total Future	6,190	0	7,679	1,942	15,811	20,881		9,833



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 123 (NE BASHKIRIAN)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	19,851
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	18,595
REMARKS								15.00%	16,961
								20.00%	14,762
								25.00%	13,050

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	105,469	3,185	41	100,473	3,034	29	53.03	2.83
2021	1	86,884	2,562	33	82,777	2,441	24	53.03	2.83
2022	1	72,219	2,085	26	72,218	2,085	20	53.03	2.83
2023	1	60,522	1,713	22	60,522	1,713	16	53.03	2.83
2024	1	51,100	1,422	19	51,100	1,422	14	53.03	2.83
2025	1	43,443	1,189	15	43,443	1,189	11	53.03	2.83
2026	1	37,168	1,002	13	37,168	1,002	10	53.03	2.83
2027	1	31,986	851	11	31,986	851	8	53.03	2.83
2028	1	27,676	727	9	27,676	727	7	53.03	2.83
2029	1	24,069	625	8	24,069	625	6	53.03	2.83
2030	1	21,031	540	7	21,031	540	5	53.03	2.83
2031	1	18,457	469	6	18,457	469	5	53.03	2.83
2032	1	16,266	409	5	15,867	399	4	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		596,290	16,779	215	586,787	16,497	159	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		596,290	16,779	215	586,787	16,497	159	53.03	2.83
Cumulative		697,462	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 25.00 %				
Ultimate		1,293,752	16,779	215					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	5,328	98	83	0	5,509	213	7	5,289
2021	4,390	80	66	0	4,536	158	6	4,372
2022	3,829	67	57	0	3,953	138	5	3,810
2023	3,210	56	46	0	3,312	114	4	3,194
2024	2,710	46	39	0	2,795	95	4	2,696
2025	2,304	39	32	0	2,375	78	2	2,295
2026	1,971	32	28	0	2,031	64	3	1,964
2027	1,696	28	23	0	1,747	52	2	1,693
2028	1,467	23	20	0	1,510	44	2	1,464
2029	1,277	20	17	0	1,314	39	1	1,274
2030	1,115	18	14	0	1,147	33	1	1,113
2031	979	15	13	0	1,007	30	1	976
2032	841	13	11	0	865	25	1	839
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	31,117	535	449	0	32,101	1,083	39	30,979
Remainder	0	0	0	0	0	0	0	0
Total Future	31,117	535	449	0	32,101	1,083	39	30,979

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	280	280	5,009	5,009	4,776
2021	0	0	0	230	230	4,142	9,151	3,574
2022	0	0	0	200	200	3,610	12,761	2,820
2023	0	0	0	167	167	3,027	15,788	2,139
2024	0	0	0	142	142	2,554	18,342	1,635
2025	0	0	0	119	119	2,176	20,518	1,260
2026	0	0	0	103	103	1,861	22,379	976
2027	0	0	0	88	88	1,605	23,984	762
2028	0	0	0	76	76	1,388	25,372	596
2029	0	0	0	66	66	1,208	26,580	470
2030	0	0	0	58	58	1,055	27,635	371
2031	0	0	0	51	51	925	28,560	295
2032	0	0	0	43	43	796	29,356	230
2033	0	0	200	0	200	-200	29,156	-53
2034	0	0	0	0	0	0	29,156	0
Sub-Total	0	0	200	1,623	1,823	29,156		19,851
Remainder	0	0	0	0	0	0	29,156	0
Total Future	0	0	200	1,623	1,823	29,156		19,851



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE ARDATOVSKI  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 63,013
								12.00% - 56,839
								15.00% - 48,956
								20.00% - 38,714
								25.00% - 31,152

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	33,216	78,752	2,541	31,643	75,022	2,202	59.92	2.83
2021	2	28,325	70,284	2,266	26,986	66,961	1,966	59.92	2.83
2022	2	24,502	63,182	2,039	24,502	63,182	1,854	59.92	2.83
2023	4	158,622	165,405	5,336	158,621	165,405	4,856	59.92	2.83
2024	4	239,228	225,464	7,273	239,228	225,464	6,619	59.92	2.83
2025	4	171,059	168,062	5,421	171,059	168,062	4,932	59.92	2.83
2026	4	122,998	126,854	4,092	122,999	126,854	3,724	59.92	2.83
2027	4	89,048	97,088	3,131	89,047	97,088	2,851	59.92	2.83
2028	4	65,004	75,424	2,434	65,005	75,424	2,214	59.92	2.83
2029	4	47,924	59,512	1,919	47,923	59,511	1,747	59.92	2.83
2030	4	35,727	47,702	1,540	35,727	47,703	1,400	59.92	2.83
2031	4	26,971	38,832	1,252	26,971	38,830	1,140	59.92	2.83
2032	4	20,646	32,076	1,035	20,099	31,260	918	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,063,270	1,248,637	40,279	1,059,810	1,240,766	36,423	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,063,270	1,248,637	40,279	1,059,810	1,240,766	36,423	59.92	2.83
Cumulative		1,994,989	0	60,615					
Ultimate		3,058,259	1,248,637	100,894					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,896	2,434	6,232	0	10,562	76	347	10,139
2021	1,617	2,172	5,563	0	9,352	58	309	8,985
2022	1,468	2,050	5,249	0	8,767	53	292	8,422
2023	9,505	5,365	13,741	0	28,611	342	764	27,505
2024	14,334	7,314	18,730	0	40,378	608	1,042	38,728
2025	10,250	5,452	13,962	0	29,664	468	785	28,411
2026	7,370	4,115	10,538	0	22,023	333	595	21,095
2027	5,336	3,150	8,065	0	16,551	219	449	15,883
2028	3,895	2,447	6,266	0	12,608	142	348	12,118
2029	2,872	1,930	4,944	0	9,746	100	275	9,371
2030	2,140	1,548	3,963	0	7,651	72	221	7,358
2031	1,617	1,259	3,226	0	6,102	53	179	5,870
2032	1,204	1,014	2,597	0	4,815	37	144	4,634
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	63,504	40,250	103,076	0	206,830	2,561	5,750	198,519
Remainder	0	0	0	0	0	0	0	0
Total Future	63,504	40,250	103,076	0	206,830	2,561	5,750	198,519

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	%
						Annual	Cumulative		
2020	1,928	0	960	1,527	4,415	5,724	5,724	5,462	
2021	1,920	0	535	1,351	3,806	5,179	10,903	4,469	
2022	1,554	0	936	1,263	3,753	4,669	15,572	3,645	
2023	4,027	0	20,871	4,297	29,195	-1,690	13,882	-1,498	
2024	4,899	0	537	6,096	11,532	27,196	41,078	17,425	
2025	3,569	0	562	4,469	8,600	19,811	60,889	11,490	
2026	2,451	0	233	3,309	5,993	15,102	75,991	7,931	
2027	2,108	0	345	2,479	4,932	10,951	86,942	5,205	
2028	1,876	0	250	1,882	4,008	8,110	95,052	3,490	
2029	1,689	0	279	1,450	3,418	5,953	101,005	2,318	
2030	1,558	0	175	1,135	2,868	4,490	105,495	1,584	
2031	1,441	0	293	901	2,635	3,235	108,730	1,032	
2032	1,426	0	181	709	2,316	2,318	111,048	670	
2033	0	0	800	0	800	-800	110,248	-210	
2034	0	0	0	0	0	0	110,248	0	
Sub-Total	30,446	0	26,957	30,868	88,271	110,248		63,013	
Remainder	0	0	0	0	0	0	110,248	0	
Total Future	30,446	0	26,957	30,868	88,271	110,248		63,013	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE ARDATOVSKI  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	30,842
							12.00%	28,580
							15.00%	25,667
							20.00%	21,816
							25.00%	18,882

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	33,216	78,752	2,541	31,643	75,022	2,202	59.92	2.83
2021	2	28,325	70,284	2,266	26,986	66,961	1,966	59.92	2.83
2022	2	24,502	63,182	2,039	24,502	63,182	1,854	59.92	2.83
2023	2	21,449	56,863	1,834	21,448	56,863	1,670	59.92	2.83
2024	2	18,965	51,176	1,651	18,965	51,176	1,502	59.92	2.83
2025	2	16,876	46,060	1,486	16,876	46,060	1,352	59.92	2.83
2026	2	15,069	41,453	1,337	15,070	41,453	1,217	59.92	2.83
2027	2	13,498	37,307	1,203	13,497	37,307	1,095	59.92	2.83
2028	2	12,119	33,578	1,084	12,120	33,578	986	59.92	2.83
2029	2	10,904	30,219	974	10,903	30,218	887	59.92	2.83
2030	2	9,813	27,197	878	9,813	27,198	798	59.92	2.83
2031	2	8,832	24,479	789	8,832	24,477	719	59.92	2.83
2032	2	7,948	22,029	711	7,753	21,490	631	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		221,516	582,579	18,793	218,408	574,985	16,879	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		221,516	582,579	18,793	218,408	574,985	16,879	59.92	2.83
Cumulative		1,994,989	0	60,615					
Ultimate		2,216,505	582,579	79,408					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,896	2,434	6,232	0	10,562	76	347	10,139
2021	1,617	2,172	5,563	0	9,352	58	309	8,985
2022	1,468	2,050	5,249	0	8,767	53	292	8,422
2023	1,285	1,844	4,724	0	7,853	46	263	7,544
2024	1,137	1,660	4,251	0	7,048	40	236	6,772
2025	1,011	1,495	3,827	0	6,333	34	213	6,086
2026	903	1,344	3,443	0	5,690	29	192	5,469
2027	809	1,211	3,100	0	5,120	25	172	4,923
2028	726	1,089	2,789	0	4,604	22	155	4,427
2029	653	980	2,510	0	4,143	19	140	3,984
2030	588	882	2,260	0	3,730	18	125	3,587
2031	529	794	2,033	0	3,356	16	113	3,227
2032	465	698	1,785	0	2,948	14	100	2,834
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	13,087	18,653	47,766	0	79,506	450	2,657	76,399
Remainder	0	0	0	0	0	0	0	0
Total Future	13,087	18,653	47,766	0	79,506	450	2,657	76,399

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	1,928	0	523	1,527	3,978	6,161	6,161	5,876
2021	1,920	0	310	1,351	3,581	5,404	11,565	4,661
2022	1,554	0	505	1,263	3,322	5,100	16,665	3,980
2023	1,054	0	482	1,132	2,668	4,876	21,541	3,446
2024	818	0	295	1,014	2,127	4,645	26,186	2,971
2025	723	0	322	911	1,956	4,130	30,316	2,391
2026	628	0	138	819	1,585	3,884	34,200	2,038
2027	633	0	210	736	1,579	3,344	37,544	1,586
2028	672	0	155	663	1,490	2,937	40,481	1,263
2029	698	0	177	596	1,471	2,513	42,994	978
2030	749	0	112	536	1,397	2,190	45,184	771
2031	764	0	190	483	1,437	1,790	46,974	571
2032	856	0	119	423	1,398	1,436	48,410	415
2033	0	0	400	0	400	-400	48,010	-105
2034	0	0	0	0	0	0	48,010	0
Sub-Total	12,997	0	3,938	11,454	28,389	48,010		30,842
Remainder	0	0	0	0	0	0	48,010	0
Total Future	12,997	0	3,938	11,454	28,389	48,010		30,842



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE ARDATOVSKI  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	30,842
							12.00%	28,580
							15.00%	25,667
							20.00%	21,816
							25.00%	18,882

ESTIMATED 8/8 THS PRODUCTION					COMPANY NET SALES			AVERAGE PRICES	
Period	Number of Wells	Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	33,216	78,752	2,541	31,643	75,022	2,202	59.92	2.83
2021	2	28,325	70,284	2,266	26,986	66,961	1,966	59.92	2.83
2022	2	24,502	63,182	2,039	24,502	63,182	1,854	59.92	2.83
2023	2	21,449	56,863	1,834	21,448	56,863	1,670	59.92	2.83
2024	2	18,965	51,176	1,651	18,965	51,176	1,502	59.92	2.83
2025	2	16,876	46,060	1,486	16,876	46,060	1,352	59.92	2.83
2026	2	15,069	41,453	1,337	15,070	41,453	1,217	59.92	2.83
2027	2	13,498	37,307	1,203	13,497	37,307	1,095	59.92	2.83
2028	2	12,119	33,578	1,084	12,120	33,578	986	59.92	2.83
2029	2	10,904	30,219	974	10,903	30,218	887	59.92	2.83
2030	2	9,813	27,197	878	9,813	27,198	798	59.92	2.83
2031	2	8,832	24,479	789	8,832	24,477	719	59.92	2.83
2032	2	7,948	22,029	711	7,753	21,490	631	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		221,516	582,579	18,793	218,408	574,985	16,879	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		221,516	582,579	18,793	218,408	574,985	16,879	59.92	2.83
Cumulative		1,994,989	0	60,615					
Ultimate		2,216,505	582,579	79,408					

COMPANY FUTURE GROSS REVENUE (FGR) - \$M						ROYALTY		FGR AFTER ROYALTY \$M
Period	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,896	2,434	6,232	0	10,562	76	347	10,139
2021	1,617	2,172	5,563	0	9,352	58	309	8,985
2022	1,468	2,050	5,249	0	8,767	53	292	8,422
2023	1,285	1,844	4,724	0	7,853	46	263	7,544
2024	1,137	1,660	4,251	0	7,048	40	236	6,772
2025	1,011	1,495	3,827	0	6,333	34	213	6,086
2026	903	1,344	3,443	0	5,690	29	192	5,469
2027	809	1,211	3,100	0	5,120	25	172	4,923
2028	726	1,089	2,789	0	4,604	22	155	4,427
2029	653	980	2,510	0	4,143	19	140	3,984
2030	588	882	2,260	0	3,730	18	125	3,587
2031	529	794	2,033	0	3,356	16	113	3,227
2032	465	698	1,785	0	2,948	14	100	2,834
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	13,087	18,653	47,766	0	79,506	450	2,657	76,399
Remainder	0	0	0	0	0	0	0	0
Total Future	13,087	18,653	47,766	0	79,506	450	2,657	76,399

DEDUCTIONS - \$M						FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
Period	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	1,928	0	523	1,527	3,978	6,161	6,161	5,876
2021	1,920	0	310	1,351	3,581	5,404	11,565	4,661
2022	1,554	0	505	1,263	3,322	5,100	16,665	3,980
2023	1,054	0	482	1,132	2,668	4,876	21,541	3,446
2024	818	0	295	1,014	2,127	4,645	26,186	2,971
2025	723	0	322	911	1,956	4,130	30,316	2,391
2026	628	0	138	819	1,585	3,884	34,200	2,038
2027	633	0	210	736	1,579	3,344	37,544	1,586
2028	672	0	155	663	1,490	2,937	40,481	1,263
2029	698	0	177	596	1,471	2,513	42,994	978
2030	749	0	112	536	1,397	2,190	45,184	771
2031	764	0	190	483	1,437	1,790	46,974	571
2032	856	0	119	423	1,398	1,436	48,410	415
2033	0	0	400	0	400	-400	48,010	-105
2034	0	0	0	0	0	0	48,010	0
Sub-Total	12,997	0	3,938	11,454	28,389	48,010		30,842
Remainder	0	0	0	0	0	0	48,010	0
Total Future	12,997	0	3,938	11,454	28,389	48,010		30,842



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE ARDATOVSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	
								COMPOUNDED
								MONTHLY
								10.00% -
								32,172
								12.00% -
								28,259
								15.00% -
								23,288
								20.00% -
								16,898
								25.00% -
								12,270

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	2	137,173	108,542	3,502	137,173	108,542	3,186	59.92	2.83
2024	2	220,263	174,288	5,622	220,263	174,288	5,117	59.92	2.83
2025	2	154,183	122,002	3,935	154,183	122,002	3,580	59.92	2.83
2026	2	107,929	85,401	2,755	107,929	85,401	2,507	59.92	2.83
2027	2	75,550	59,781	1,928	75,550	59,781	1,756	59.92	2.83
2028	2	52,885	41,846	1,350	52,885	41,846	1,228	59.92	2.83
2029	2	37,020	29,293	945	37,020	29,293	860	59.92	2.83
2030	2	25,914	20,505	662	25,914	20,505	602	59.92	2.83
2031	2	18,139	14,353	463	18,139	14,353	421	59.92	2.83
2032	2	12,698	10,047	324	12,346	9,770	287	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		841,754	666,058	21,486	841,402	665,781	19,544	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		841,754	666,058	21,486	841,402	665,781	19,544	59.92	2.83
Cumulative		0	0	0					
Ultimate		841,754	666,058	21,486					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	8,219	3,521	9,017	0	20,757	296	502	19,959
2024	13,199	5,654	14,479	0	33,332	569	805	31,958
2025	9,238	3,958	10,135	0	23,331	433	572	22,326
2026	6,467	2,770	7,095	0	16,332	304	403	15,625
2027	4,527	1,939	4,966	0	11,432	194	277	10,961
2028	3,169	1,358	3,476	0	8,003	121	193	7,689
2029	2,218	950	2,434	0	5,602	79	135	5,388
2030	1,553	665	1,703	0	3,921	55	95	3,771
2031	1,087	466	1,193	0	2,746	37	66	2,643
2032	740	317	811	0	1,868	23	46	1,799
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	50,417	21,598	55,309	0	127,324	2,111	3,094	122,119
Remainder	0	0	0	0	0	0	0	0
Total Future	50,417	21,598	55,309	0	127,324	2,111	3,094	122,119

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	438	0	438	-438	-438	-415
2021	0	0	223	0	223	-223	-661	-192
2022	0	0	432	0	432	-432	-1,093	-335
2023	2,974	0	20,389	3,165	26,528	-6,569	-7,662	-4,944
2024	4,080	0	242	5,082	9,404	22,554	14,892	14,455
2025	2,846	0	240	3,557	6,643	15,683	30,575	9,099
2026	1,823	0	95	2,490	4,408	11,217	41,792	5,893
2027	1,475	0	135	1,744	3,354	7,607	49,399	3,619
2028	1,204	0	95	1,220	2,519	5,170	54,569	2,226
2029	991	0	102	854	1,947	3,441	58,010	1,341
2030	809	0	63	598	1,470	2,301	60,311	813
2031	677	0	103	418	1,198	1,445	61,756	461
2032	570	0	62	285	917	882	62,638	255
2033	0	0	400	0	400	-400	62,238	-104
2034	0	0	0	0	0	0	62,238	0
Sub-Total	17,449	0	23,019	19,413	59,881	62,238		32,172
Remainder	0	0	0	0	0	0	62,238	0
Total Future	17,449	0	23,019	19,413	59,881	62,238		32,172



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST FILIPOVSKI  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 23,000
								12.00% - 21,546
								15.00% - 19,576
								20.00% - 16,776
								25.00% - 14,473

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	3	29,397	19,468	442	28,052	18,577	384	53.03	2.83
2021	7	110,039	74,681	1,697	105,088	71,319	1,476	53.03	2.83
2022	7	113,048	83,350	1,895	107,225	79,067	1,634	53.03	2.83
2023	7	71,181	58,949	1,339	71,178	58,949	1,219	53.03	2.83
2024	7	44,994	41,767	951	44,996	41,768	865	53.03	2.83
2025	7	28,576	29,649	673	28,576	29,650	614	53.03	2.83
2026	7	18,260	21,094	479	18,259	21,092	436	53.03	2.83
2027	7	11,753	15,044	344	11,751	15,044	311	53.03	2.83
2028	7	7,636	10,759	243	7,637	10,761	223	53.03	2.83
2029	7	5,019	7,722	174	5,019	7,720	159	53.03	2.83
2030	7	3,342	5,558	128	3,345	5,561	115	53.03	2.83
2031	7	2,265	4,020	91	2,262	4,019	83	53.03	2.83
2032	7	1,562	2,920	66	1,521	2,839	58	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		447,072	374,981	8,522	434,909	366,366	7,577	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		447,072	374,981	8,522	434,909	366,366	7,577	53.03	2.83
Cumulative		12,509	0	194					
Ultimate		459,581	374,981	8,716					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,488	603	1,087	0	3,178	52	68	3,058
2021	5,572	2,313	4,175	0	12,060	171	259	11,630
2022	5,686	2,565	4,627	0	12,878	180	288	12,410
2023	3,775	1,912	3,451	0	9,138	136	214	8,788
2024	2,386	1,355	2,444	0	6,185	100	152	5,933
2025	1,516	962	1,736	0	4,214	69	110	4,035
2026	968	685	1,234	0	2,887	43	78	2,766
2027	623	488	881	0	1,992	26	55	1,911
2028	405	349	629	0	1,383	14	39	1,330
2029	266	250	452	0	968	10	28	930
2030	178	180	326	0	684	6	20	658
2031	120	131	235	0	486	3	15	468
2032	80	92	166	0	338	3	10	325
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,063	11,885	21,443	0	56,391	813	1,336	54,242
Remainder	0	0	0	0	0	0	0	0
Total Future	23,063	11,885	21,443	0	56,391	813	1,336	54,242

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	579	0	868	303	1,750	1,308	1,308	1,220	
2021	2,808	0	2,538	1,157	6,503	5,127	6,435	4,306	
2022	2,843	0	247	1,260	4,350	8,060	14,495	6,309	
2023	1,446	0	218	916	2,580	6,208	20,703	4,393	
2024	791	0	132	636	1,559	4,374	25,077	2,805	
2025	532	0	130	443	1,105	2,930	28,007	1,701	
2026	334	0	50	309	693	2,073	30,080	1,089	
2027	262	0	72	218	552	1,359	31,439	647	
2028	210	0	49	154	413	917	32,356	395	
2029	171	0	53	109	333	597	32,953	233	
2030	139	0	32	78	249	409	33,362	144	
2031	115	0	52	56	223	245	33,607	78	
2032	98	0	31	39	168	157	33,764	46	
2033	0	0	1,400	0	1,400	-1,400	32,364	-366	
2034	0	0	0	0	0	0	32,364	0	
Sub-Total	10,328	0	5,872	5,678	21,878	32,364		23,000	
Remainder	0	0	0	0	0	0	32,364	0	
Total Future	10,328	0	5,872	5,678	21,878	32,364		23,000	





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST FILIPOVSKI  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	3,444
							12.00%	—	3,279
							15.00%	—	3,054
							20.00%	—	2,733
							25.00%	—	2,469

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	2	15,343	10,269	233	14,616	9,782	202	53.03	2.83
2021	2	10,995	7,881	179	10,475	7,509	156	53.03	2.83
2022	2	8,171	6,226	142	8,171	6,226	128	53.03	2.83
2023	2	6,156	4,963	113	6,156	4,963	103	53.03	2.83
2024	2	4,680	3,977	90	4,679	3,977	83	53.03	2.83
2025	2	3,580	3,196	73	3,582	3,197	66	53.03	2.83
2026	2	2,762	2,577	59	2,761	2,575	53	53.03	2.83
2027	2	2,145	2,081	47	2,144	2,082	43	53.03	2.83
2028	2	1,679	1,687	38	1,679	1,687	35	53.03	2.83
2029	2	1,325	1,370	31	1,326	1,369	28	53.03	2.83
2030	2	1,054	1,113	25	1,054	1,114	23	53.03	2.83
2031	2	843	907	22	844	907	19	53.03	2.83
2032	2	682	740	16	664	722	15	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		59,415	46,987	1,068	58,151	46,110	954	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		59,415	46,987	1,068	58,151	46,110	954	53.03	2.83
Cumulative		12,509	0	194					
Ultimate		71,924	46,987	1,262					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	775	317	573	0	1,665	31	36	1,598
2021	556	244	439	0	1,239	20	27	1,192
2022	433	202	364	0	999	16	23	960
2023	326	161	291	0	778	11	18	749
2024	248	129	233	0	610	9	14	587
2025	190	104	187	0	481	6	12	463
2026	147	83	151	0	381	5	9	367
2027	114	68	121	0	303	4	8	291
2028	89	54	99	0	242	2	6	234
2029	70	45	80	0	195	2	5	188
2030	56	36	65	0	157	2	4	151
2031	45	29	54	0	128	1	3	124
2032	35	24	42	0	101	1	3	97
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,084	1,496	2,699	0	7,279	110	168	7,001
Remainder	0	0	0	0	0	0	0	0
Total Future	3,084	1,496	2,699	0	7,279	110	168	7,001

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	268	0	72	159	499	1,099	1,099	1,049
2021	235	0	38	121	394	798	1,897	690
2022	166	0	53	98	317	643	2,540	503
2023	98	0	45	78	221	528	3,068	374
2024	66	0	23	61	150	437	3,505	279
2025	50	0	22	49	121	342	3,847	198
2026	38	0	9	39	86	281	4,128	147
2027	33	0	10	32	75	216	4,344	103
2028	31	0	8	25	64	170	4,514	74
2029	28	0	6	21	55	133	4,647	51
2030	25	0	4	16	45	106	4,753	37
2031	23	0	6	14	43	81	4,834	26
2032	23	0	3	10	36	61	4,895	18
2033	0	0	400	0	400	-400	4,495	-105
2034	0	0	0	0	0	0	4,495	0
Sub-Total	1,084	0	699	723	2,506	4,495		3,444
Remainder	0	0	0	0	0	0	4,495	0
Total Future	1,084	0	699	723	2,506	4,495		3,444



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
WEST FILIPOVSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 19,555
								12.00% - 18,267
								15.00% - 16,522
								20.00% - 14,043
								25.00% - 12,003

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	14,054	9,199	209	13,436	8,795	182	53.03	2.83
2021	5	99,044	66,800	1,518	94,613	63,810	1,320	53.03	2.83
2022	5	104,877	77,124	1,753	99,054	72,841	1,506	53.03	2.83
2023	5	65,025	53,986	1,226	65,022	53,986	1,116	53.03	2.83
2024	5	40,314	37,790	861	40,317	37,791	782	53.03	2.83
2025	5	24,996	26,453	600	24,994	26,453	548	53.03	2.83
2026	5	15,498	18,517	420	15,498	18,517	383	53.03	2.83
2027	5	9,608	12,963	297	9,607	12,962	268	53.03	2.83
2028	5	5,957	9,072	205	5,958	9,074	188	53.03	2.83
2029	5	3,694	6,352	143	3,693	6,351	131	53.03	2.83
2030	5	2,288	4,445	103	2,291	4,447	92	53.03	2.83
2031	5	1,422	3,113	69	1,418	3,112	64	53.03	2.83
2032	5	880	2,180	50	857	2,117	43	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		387,657	327,994	7,454	376,758	320,256	6,623	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		387,657	327,994	7,454	376,758	320,256	6,623	53.03	2.83
Cumulative		0	0	0					
Ultimate		387,657	327,994	7,454					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	712	285	515	0	1,512	21	32	1,459
2021	5,018	2,070	3,735	0	10,823	151	232	10,440
2022	5,253	2,363	4,263	0	11,879	164	265	11,450
2023	3,448	1,752	3,160	0	8,360	124	197	8,039
2024	2,138	1,225	2,212	0	5,575	93	137	5,345
2025	1,325	859	1,548	0	3,732	62	98	3,572
2026	822	600	1,084	0	2,506	38	69	2,399
2027	510	421	758	0	1,689	22	47	1,620
2028	316	294	531	0	1,141	12	33	1,096
2029	195	206	372	0	773	7	23	743
2030	122	144	260	0	526	5	16	505
2031	75	101	182	0	358	2	12	344
2032	45	69	124	0	238	2	7	229
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	19,979	10,389	18,744	0	49,112	703	1,168	47,241
Remainder	0	0	0	0	0	0	0	0
Total Future	19,979	10,389	18,744	0	49,112	703	1,168	47,241

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	311	0	796	144	1,251	208	208	170
2021	2,572	0	2,500	1,037	6,109	4,331	4,539	3,618
2022	2,677	0	193	1,161	4,031	7,419	11,958	5,805
2023	1,349	0	175	839	2,363	5,676	17,634	4,019
2024	725	0	108	574	1,407	3,938	21,572	2,526
2025	482	0	107	393	982	2,590	24,162	1,503
2026	295	0	43	271	609	1,790	25,952	941
2027	229	0	60	186	475	1,145	27,097	545
2028	180	0	43	129	352	744	27,841	321
2029	143	0	46	88	277	466	28,307	182
2030	114	0	28	62	204	301	28,608	107
2031	92	0	46	42	180	164	28,772	52
2032	75	0	28	29	132	97	28,869	28
2033	0	0	1,000	0	1,000	-1,000	27,869	-262
2034	0	0	0	0	0	0	27,869	0
Sub-Total	9,244	0	5,173	4,955	19,372	27,869		19,555
Remainder	0	0	0	0	0	0	27,869	0
Total Future	9,244	0	5,173	4,955	19,372	27,869		19,555



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 28 (NE ARDATOVSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00%	14,618
FINAL	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00%	13,542
REMARKS								15.00%	12,158
								20.00%	10,328
								25.00%	8,934

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	18,621	35,610	1,149	17,739	33,923	996	59.92	2.83
2021	1	16,164	31,797	1,025	15,400	30,294	889	59.92	2.83
2022	1	14,213	28,595	923	14,213	28,595	839	59.92	2.83
2023	1	12,630	25,735	830	12,630	25,735	756	59.92	2.83
2024	1	11,323	23,161	747	11,323	23,161	680	59.92	2.83
2025	1	10,190	20,846	673	10,189	20,846	612	59.92	2.83
2026	1	9,170	18,761	605	9,171	18,761	550	59.92	2.83
2027	1	8,254	16,884	544	8,254	16,884	496	59.92	2.83
2028	1	7,428	15,197	491	7,428	15,197	446	59.92	2.83
2029	1	6,686	13,676	441	6,685	13,676	402	59.92	2.83
2030	1	6,017	12,309	397	6,017	12,309	361	59.92	2.83
2031	1	5,415	11,079	357	5,415	11,078	325	59.92	2.83
2032	1	4,873	9,970	322	4,754	9,726	286	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		130,984	263,620	8,504	129,218	260,185	7,638	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		130,984	263,620	8,504	129,218	260,185	7,638	59.92	2.83
Cumulative		1,200,249	0	34,224	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		1,331,233	263,620	42,728					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,063	1,100	2,818	0	4,981	42	157	4,782
2021	923	983	2,517	0	4,423	34	140	4,249
2022	851	928	2,375	0	4,154	30	132	3,992
2023	757	835	2,138	0	3,730	27	119	3,584
2024	679	751	1,924	0	3,354	24	107	3,223
2025	610	676	1,732	0	3,018	21	96	2,901
2026	550	609	1,559	0	2,718	18	87	2,613
2027	494	548	1,402	0	2,444	15	78	2,351
2028	445	493	1,263	0	2,201	13	70	2,118
2029	401	443	1,136	0	1,980	12	63	1,905
2030	360	400	1,022	0	1,782	11	57	1,714
2031	325	359	921	0	1,605	10	51	1,544
2032	285	315	808	0	1,408	8	45	1,355
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	7,743	8,440	21,615	0	37,798	265	1,202	36,331
Remainder	0	0	0	0	0	0	0	0
Total Future	7,743	8,440	21,615	0	37,798	265	1,202	36,331

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00 %	%
2020	908	0	246	727	1,881	2,901	2,901	2,767	
2021	907	0	147	644	1,698	2,551	5,452	2,201	
2022	735	0	239	604	1,578	2,414	7,866	1,883	
2023	499	0	228	543	1,270	2,314	10,180	1,634	
2024	389	0	140	488	1,017	2,206	12,386	1,412	
2025	344	0	154	439	937	1,964	14,350	1,138	
2026	300	0	65	395	760	1,853	16,203	971	
2027	302	0	101	355	758	1,593	17,796	757	
2028	320	0	74	320	714	1,404	19,200	602	
2029	333	0	84	288	705	1,200	20,400	467	
2030	358	0	53	260	671	1,043	21,443	368	
2031	365	0	91	233	689	855	22,298	273	
2032	408	0	57	205	670	685	22,983	197	
2033	0	0	200	0	200	-200	22,783	-52	
2034	0	0	0	0	0	0	22,783	0	
Sub-Total	6,168	0	1,879	5,501	13,548	22,783		14,618	
Remainder	0	0	0	0	0	0	22,783	0	
Total Future	6,168	0	1,879	5,501	13,548	22,783		14,618	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 115 (NE ARDATOVSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00% -	16,224
FINAL	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00% -	15,037
REMARKS								15.00% -	13,509
								20.00% -	11,488
								25.00% -	9,948

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	14,595	43,142	1,392	13,904	41,099	1,206	59.92	2.83
2021	1	12,161	38,487	1,241	11,586	36,667	1,077	59.92	2.83
2022	1	10,289	34,587	1,116	10,289	34,587	1,015	59.92	2.83
2023	1	8,819	31,128	1,004	8,818	31,128	914	59.92	2.83
2024	1	7,642	28,015	904	7,642	28,015	822	59.92	2.83
2025	1	6,686	25,214	813	6,687	25,214	740	59.92	2.83
2026	1	5,899	22,692	732	5,899	22,692	667	59.92	2.83
2027	1	5,244	20,423	659	5,243	20,423	599	59.92	2.83
2028	1	4,691	18,381	593	4,692	18,381	540	59.92	2.83
2029	1	4,218	16,543	533	4,218	16,542	485	59.92	2.83
2030	1	3,796	14,888	481	3,796	14,889	437	59.92	2.83
2031	1	3,417	13,400	432	3,417	13,399	394	59.92	2.83
2032	1	3,075	12,059	389	2,999	11,764	345	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		90,532	318,959	10,289	89,190	314,800	9,241	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		90,532	318,959	10,289	89,190	314,800	9,241	59.92	2.83
Cumulative		794,740	0	26,391	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		885,272	318,959	36,680	SHRINKAGE FACTOR = 9.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	833	1,333	3,414	0	5,580	33	190	5,357
2021	694	1,190	3,046	0	4,930	25	169	4,736
2022	617	1,122	2,874	0	4,613	22	160	4,431
2023	528	1,010	2,586	0	4,124	19	144	3,961
2024	458	908	2,327	0	3,693	16	129	3,548
2025	401	818	2,094	0	3,313	14	117	3,182
2026	353	736	1,886	0	2,975	11	105	2,859
2027	314	663	1,696	0	2,673	10	94	2,569
2028	282	596	1,527	0	2,405	9	85	2,311
2029	252	537	1,375	0	2,164	7	76	2,081
2030	228	483	1,236	0	1,947	7	69	1,871
2031	205	434	1,114	0	1,753	6	62	1,685
2032	179	382	977	0	1,538	5	55	1,478
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	5,344	10,212	26,152	0	41,708	184	1,455	40,069
Remainder	0	0	0	0	0	0	0	0
Total Future	5,344	10,212	26,152	0	41,708	184	1,455	40,069

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	1,020	0	277	801	2,098	3,259	3,259		3,109
2021	1,014	0	163	706	1,883	2,853	6,112		2,460
2022	818	0	266	659	1,743	2,688	8,800		2,097
2023	554	0	254	589	1,397	2,564	11,364		1,812
2024	430	0	154	527	1,111	2,437	13,801		1,559
2025	378	0	169	472	1,019	2,163	15,964		1,253
2026	329	0	72	423	824	2,035	17,999		1,067
2027	332	0	110	381	823	1,746	19,745		830
2028	351	0	81	342	774	1,537	21,282		660
2029	365	0	93	308	766	1,315	22,597		511
2030	391	0	58	277	726	1,145	23,742		403
2031	400	0	100	250	750	935	24,677		299
2032	447	0	62	219	728	750	25,427		216
2033	0	0	200	0	200	-200	25,227		-52
2034	0	0	0	0	0	0	25,227		0
Sub-Total	6,829	0	2,059	5,954	14,842	25,227			16,224
Remainder	0	0	0	0	0	0	25,227		0
Total Future	6,829	0	2,059	5,954	14,842	25,227			16,224



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 271 (46ST) (NE ARDATOVSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00% -	16,607
	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00% -	14,675
								15.00% -	12,203
								20.00% -	8,990
								25.00% -	6,629

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	112,028	88,645	2,860	112,028	88,645	2,602	59.92	2.83
2024	1	97,099	76,832	2,478	97,099	76,832	2,256	59.92	2.83
2025	1	67,969	53,782	1,735	67,969	53,782	1,578	59.92	2.83
2026	1	47,578	37,648	1,214	47,578	37,648	1,105	59.92	2.83
2027	1	33,305	26,353	850	33,305	26,353	774	59.92	2.83
2028	1	23,314	18,447	595	23,314	18,447	542	59.92	2.83
2029	1	16,319	12,914	417	16,319	12,914	379	59.92	2.83
2030	1	11,424	9,039	292	11,424	9,039	265	59.92	2.83
2031	1	7,996	6,327	204	7,996	6,327	186	59.92	2.83
2032	1	5,598	4,429	143	5,443	4,307	126	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		422,630	334,416	10,788	422,475	334,294	9,813	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		422,630	334,416	10,788	422,475	334,294	9,813	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		422,630	334,416	10,788	SHRINKAGE FACTOR = 9.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	6,713	2,876	7,364	0	16,953	242	410	16,301
2024	5,818	2,492	6,383	0	14,693	250	355	14,088
2025	4,073	1,745	4,468	0	10,286	191	252	9,843
2026	2,850	1,221	3,127	0	7,198	134	178	6,886
2027	1,996	855	2,190	0	5,041	86	121	4,834
2028	1,397	598	1,532	0	3,527	53	86	3,388
2029	978	419	1,073	0	2,470	35	59	2,376
2030	684	294	751	0	1,729	24	42	1,663
2031	480	205	525	0	1,210	17	29	1,164
2032	326	139	358	0	823	10	20	793
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	25,315	10,844	27,771	0	63,930	1,042	1,552	61,336
Remainder	0	0	0	0	0	0	0	0
Total Future	25,315	10,844	27,771	0	63,930	1,042	1,552	61,336

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	219	0	219	-219	-219	-208
2021	0	0	113	0	113	-113	-332	-96
2022	0	0	216	0	216	-216	-548	-168
2023	2,498	0	10,195	2,585	15,278	1,023	475	342
2024	1,799	0	121	2,240	4,160	9,928	10,403	6,363
2025	1,255	0	120	1,568	2,943	6,900	17,303	4,003
2026	803	0	48	1,098	1,949	4,937	22,240	2,594
2027	650	0	68	768	1,486	3,348	25,588	1,592
2028	531	0	47	538	1,116	2,272	27,860	979
2029	437	0	52	377	866	1,510	29,370	589
2030	357	0	31	263	651	1,012	30,382	357
2031	298	0	52	185	535	629	31,011	201
2032	251	0	31	125	407	386	31,397	111
2033	0	0	200	0	200	-200	31,197	-52
2034	0	0	0	0	0	0	31,197	0
Sub-Total	8,879	0	11,513	9,747	30,139	31,197		16,607
Remainder	0	0	0	0	0	0	31,197	0
Total Future	8,879	0	11,513	9,747	30,139	31,197		16,607



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 270 (NE ARDATOVSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE	Oil/	Plant	Gas	Oil/Cond.	Plt. Prod.	Gas	FUTURE NET INCOME - \$M	
	INTEREST	Condensate	Products		\$/bbl.	\$/bbl.	\$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	15,564
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	13,585
REMARKS								15.00%	11,085
								20.00%	7,908
								25.00%	5,640

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	25,145	19,897	642	25,145	19,897	584	59.92	2.83
2024	1	123,164	97,456	3,144	123,164	97,456	2,861	59.92	2.83
2025	1	86,214	68,220	2,200	86,214	68,220	2,002	59.92	2.83
2026	1	60,351	47,753	1,541	60,351	47,753	1,402	59.92	2.83
2027	1	42,245	33,428	1,078	42,245	33,428	982	59.92	2.83
2028	1	29,571	23,399	755	29,571	23,399	686	59.92	2.83
2029	1	20,701	16,379	528	20,701	16,379	481	59.92	2.83
2030	1	14,490	11,466	370	14,490	11,466	337	59.92	2.83
2031	1	10,143	8,026	259	10,143	8,026	235	59.92	2.83
2032	1	7,100	5,618	181	6,903	5,463	161	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		419,124	331,642	10,698	418,927	331,487	9,731	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		419,124	331,642	10,698	418,927	331,487	9,731	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		419,124	331,642	10,698					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	1,507	645	1,653	0	3,805	54	92	3,659
2024	7,380	3,162	8,096	0	18,638	318	450	17,870
2025	5,166	2,213	5,667	0	13,046	243	320	12,483
2026	3,616	1,549	3,967	0	9,132	170	226	8,736
2027	2,531	1,084	2,777	0	6,392	108	154	6,130
2028	1,772	760	1,944	0	4,476	67	108	4,301
2029	1,240	531	1,361	0	3,132	45	76	3,011
2030	869	372	952	0	2,193	31	53	2,109
2031	607	260	667	0	1,534	20	37	1,477
2032	414	177	454	0	1,045	13	25	1,007
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	25,102	10,753	27,538	0	63,393	1,069	1,541	60,783
Remainder	0	0	0	0	0	0	0	0
Total Future	25,102	10,753	27,538	0	63,393	1,069	1,541	60,783

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	218	0	218	-218	-218	-207
2021	0	0	112	0	112	-112	-330	-96
2022	0	0	215	0	215	-215	-545	-167
2023	476	0	10,194	580	11,250	-7,591	-8,136	-5,286
2024	2,281	0	121	2,842	5,244	12,626	4,490	8,092
2025	1,591	0	120	1,989	3,700	8,783	13,273	5,096
2026	1,020	0	47	1,392	2,459	6,277	19,550	3,298
2027	824	0	67	975	1,866	4,264	23,814	2,028
2028	674	0	47	682	1,403	2,898	26,712	1,247
2029	554	0	52	478	1,084	1,927	28,639	752
2030	453	0	31	334	818	1,291	29,930	456
2031	378	0	51	234	663	814	30,744	260
2032	319	0	31	160	510	497	31,241	144
2033	0	0	200	0	200	-200	31,041	-53
2034	0	0	0	0	0	0	31,041	0
Sub-Total	8,570	0	11,506	9,666	29,742	31,041		15,564
Remainder	0	0	0	0	0	0	31,041	0
Total Future	8,570	0	11,506	9,666	29,742	31,041		15,564



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SO ARDATOVSKI  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% -
								12.00% -
								15.00% -
								20.00% -
								25.00% -
								-124
								-117
								-108
								-94
								-81

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	175	528	14	167	503	11	59.92	2.83
2021	1	5	75	1	5	71	2	59.92	2.83
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		180	603	15	172	574	13	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		180	603	15	172	574	13	59.92	2.83
Cumulative		102,788	0	1,127					
Ultimate		102,968	603	1,142					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	10	16	31	0	57	0	2	55
2021	0	3	4	0	7	0	0	7
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10	19	35	0	64	0	2	62
Remainder	0	0	0	0	0	0	0	0
Total Future	10	19	35	0	64	0	2	62

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	10	0	2	8	20	35	35	33
2021	2	0	0	1	3	4	39	4
2022	0	0	200	0	200	-200	-161	-161
2023	0	0	0	0	0	0	-161	0
2024	0	0	0	0	0	0	-161	0
2025	0	0	0	0	0	0	-161	0
2026	0	0	0	0	0	0	-161	0
2027	0	0	0	0	0	0	-161	0
2028	0	0	0	0	0	0	-161	0
2029	0	0	0	0	0	0	-161	0
2030	0	0	0	0	0	0	-161	0
2031	0	0	0	0	0	0	-161	0
2032	0	0	0	0	0	0	-161	0
2033	0	0	0	0	0	0	-161	0
2034	0	0	0	0	0	0	-161	0
Sub-Total	12	0	202	9	223	-161		-124
Remainder	0	0	0	0	0	0	-161	0
Total Future	12	0	202	9	223	-161		-124



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH #32 (SOUTH ARDATOVSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00%	-124
FINAL	1.000000	0.952724	0.952724	0.952724	59.92	32.44	2.83	12.00%	-117
REMARKS								15.00%	-108
								20.00%	-94
								25.00%	-81

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	175	528	14	167	503	11	59.92	2.83
2021	1	5	75	1	5	71	2	59.92	2.83
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		180	603	15	172	574	13	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		180	603	15	172	574	13	59.92	2.83
Cumulative		102,788	0	1,127	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		102,968	603	1,142	SHRINKAGE FACTOR = 15.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	10	16	31	0	57	0	2	55
2021	0	3	4	0	7	0	0	7
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10	19	35	0	64	0	2	62
Remainder	0	0	0	0	0	0	0	0
Total Future	10	19	35	0	64	0	2	62

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	10	0	2	8	20	35	35	33
2021	2	0	0	1	3	4	39	4
2022	0	0	200	0	200	-200	-161	-161
2023	0	0	0	0	0	0	-161	0
2024	0	0	0	0	0	0	-161	0
2025	0	0	0	0	0	0	-161	0
2026	0	0	0	0	0	0	-161	0
2027	0	0	0	0	0	0	-161	0
2028	0	0	0	0	0	0	-161	0
2029	0	0	0	0	0	0	-161	0
2030	0	0	0	0	0	0	-161	0
2031	0	0	0	0	0	0	-161	0
2032	0	0	0	0	0	0	-161	0
2033	0	0	0	0	0	0	-161	0
2034	0	0	0	0	0	0	-161	0
Sub-Total	12	0	202	9	223	-161		-124
Remainder	0	0	0	0	0	0	-161	0
Total Future	12	0	202	9	223	-161		-124





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH #32 (SOUTH ARDATOVSKI)

GAS LEASE  
PROBABLE  
NON PRODUCING

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000							10.00%	-191
FINAL	1.000000							12.00%	-189
REMARKS								15.00%	-187
								20.00%	-183
								25.00%	-179

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	200	0	200	-200	-200	-191
2021	0	0	0	0	0	0	-200	0
2022	0	0	0	0	0	0	-200	0
2023	0	0	0	0	0	0	-200	0
2024	0	0	0	0	0	0	-200	0
2025	0	0	0	0	0	0	-200	0
2026	0	0	0	0	0	0	-200	0
2027	0	0	0	0	0	0	-200	0
2028	0	0	0	0	0	0	-200	0
2029	0	0	0	0	0	0	-200	0
2030	0	0	0	0	0	0	-200	0
2031	0	0	0	0	0	0	-200	0
2032	0	0	0	0	0	0	-200	0
2033	0	0	0	0	0	0	-200	0
2034	0	0	0	0	0	0	-200	0
Sub-Total	0	0	200	0	200	-200		-191
Remainder	0	0	0	0	0	0	-200	0
Total Future	0	0	200	0	200	-200		-191



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SO ARDATOVSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	-191
FINAL								12.00%	-189
REMARKS								15.00%	-187
								20.00%	-183
								25.00%	-179

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	200	0	200	-200	-200	-191
2021	0	0	0	0	0	0	-200	0
2022	0	0	0	0	0	0	-200	0
2023	0	0	0	0	0	0	-200	0
2024	0	0	0	0	0	0	-200	0
2025	0	0	0	0	0	0	-200	0
2026	0	0	0	0	0	0	-200	0
2027	0	0	0	0	0	0	-200	0
2028	0	0	0	0	0	0	-200	0
2029	0	0	0	0	0	0	-200	0
2030	0	0	0	0	0	0	-200	0
2031	0	0	0	0	0	0	-200	0
2032	0	0	0	0	0	0	-200	0
2033	0	0	0	0	0	0	-200	0
2034	0	0	0	0	0	0	-200	0
Sub-Total	0	0	200	0	200	-200		-191
Remainder	0	0	0	0	0	0	-200	0
Total Future	0	0	200	0	200	-200		-191



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE MULLINSKI  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
							10.00%	33,641
							12.00%	29,070
							15.00%	23,499
							20.00%	16,796
							25.00%	12,330

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	3	64,788	21,057	289	61,718	20,060	234	59.92	2.83
2021	2	50,711	16,784	229	48,314	15,990	186	59.92	2.83
2022	2	40,107	13,509	186	40,106	13,509	157	59.92	2.83
2023	3	70,256	24,278	333	70,257	24,278	282	59.92	2.83
2024	4	141,270	48,740	667	141,270	48,740	569	59.92	2.83
2025	7	430,222	148,229	2,032	430,221	148,229	1,725	59.92	2.83
2026	7	408,225	138,557	1,897	408,226	138,556	1,615	59.92	2.83
2027	7	311,007	103,694	1,419	311,006	103,696	1,206	59.92	2.83
2028	7	237,012	77,661	1,066	237,012	77,661	904	59.92	2.83
2029	7	180,686	58,210	796	180,686	58,210	677	59.92	2.83
2030	7	137,797	43,672	598	137,797	43,671	510	59.92	2.83
2031	7	105,134	32,798	450	105,135	32,799	381	59.92	2.83
2032	7	80,249	24,661	339	78,041	23,984	281	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		2,257,464	751,850	10,301	2,249,789	749,383	8,727	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		2,257,464	751,850	10,301	2,249,789	749,383	8,727	59.92	2.83
Cumulative		376,869	0	1,913					
Ultimate		2,634,333	751,850	12,214					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	\$M
2020	3,698	651	661	0	5,010	148	52	4,810
2021	2,895	518	527	0	3,940	104	42	3,794
2022	2,403	439	445	0	3,287	86	36	3,165
2023	4,210	787	800	0	5,797	151	63	5,583
2024	8,465	1,581	1,606	0	11,652	353	128	11,171
2025	25,779	4,809	4,885	0	35,473	1,193	393	33,887
2026	24,461	4,495	4,565	0	33,521	1,135	370	32,016
2027	18,635	3,364	3,417	0	25,416	790	271	24,355
2028	14,202	2,519	2,559	0	19,280	535	203	18,542
2029	10,827	1,888	1,919	0	14,634	387	153	14,094
2030	8,257	1,417	1,439	0	11,113	287	114	10,712
2031	6,299	1,064	1,080	0	8,443	213	86	8,144
2032	4,676	778	791	0	6,245	149	62	6,034
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	134,807	24,310	24,694	0	183,811	5,531	1,973	176,307
Remainder	0	0	0	0	0	0	0	0
Total Future	134,807	24,310	24,694	0	183,811	5,531	1,973	176,307

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	891	0	854	823	2,568	2,242	2,242	2,150
2021	792	0	340	647	1,779	2,015	4,257	1,742
2022	571	0	593	538	1,702	1,463	5,720	1,143
2023	741	0	1,526	950	3,217	2,366	8,086	1,622
2024	1,367	0	30,315	1,908	33,590	-22,419	-14,333	-13,690
2025	4,236	0	10,312	5,811	20,359	13,528	-805	7,637
2026	3,682	0	122	5,494	9,298	22,718	21,913	11,927
2027	3,225	0	172	4,170	7,567	16,788	38,701	7,980
2028	2,860	0	120	3,165	6,145	12,397	51,098	5,334
2029	2,552	0	129	2,405	5,086	9,008	60,106	3,510
2030	2,264	0	77	1,827	4,168	6,544	66,650	2,307
2031	2,049	0	125	1,389	3,563	4,581	71,231	1,463
2032	1,879	0	75	1,028	2,982	3,052	74,283	882
2033	0	0	1,400	0	1,400	-1,400	72,883	-366
2034	0	0	0	0	0	0	72,883	0
Sub-Total	27,109	0	46,160	30,155	103,424	72,883		33,641
Remainder	0	0	0	0	0	0	72,883	0
Total Future	27,109	0	46,160	30,155	103,424	72,883		33,641



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE MULLINSKI  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
							10.00%	9,944
							12.00%	9,384
							15.00%	8,643
							20.00%	7,619
							25.00%	6,800

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	3	64,788	21,057	289	61,718	20,060	234	59.92	2.83
2021	2	50,711	16,784	229	48,314	15,990	186	59.92	2.83
2022	2	40,107	13,509	186	40,106	13,509	157	59.92	2.83
2023	2	31,840	10,928	150	31,841	10,928	127	59.92	2.83
2024	2	25,376	8,881	121	25,376	8,881	104	59.92	2.83
2025	2	20,304	7,253	100	20,303	7,253	84	59.92	2.83
2026	2	16,306	5,952	82	16,307	5,951	70	59.92	2.83
2027	2	13,148	4,905	66	13,147	4,907	57	59.92	2.83
2028	2	10,639	4,063	56	10,639	4,063	47	59.92	2.83
2029	2	8,643	3,379	47	8,643	3,379	39	59.92	2.83
2030	2	7,044	2,822	38	7,044	2,821	33	59.92	2.83
2031	2	5,761	2,365	33	5,762	2,366	27	59.92	2.83
2032	2	4,727	1,991	27	4,611	1,941	23	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		299,394	103,889	1,424	293,811	102,049	1,188	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		299,394	103,889	1,424	293,811	102,049	1,188	59.92	2.83
Cumulative		376,869	0	1,913					
Ultimate		676,263	103,889	3,337					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	3,698	651	661	0	5,010	148	52	4,810
2021	2,895	518	527	0	3,940	104	42	3,794
2022	2,403	439	445	0	3,287	86	36	3,165
2023	1,908	354	360	0	2,622	68	28	2,526
2024	1,521	288	293	0	2,102	54	23	2,025
2025	1,216	236	239	0	1,691	41	19	1,631
2026	977	193	196	0	1,366	32	16	1,318
2027	788	159	162	0	1,109	24	13	1,072
2028	638	132	133	0	903	19	10	874
2029	518	109	112	0	739	16	9	714
2030	422	92	93	0	607	12	8	587
2031	345	76	78	0	499	11	6	482
2032	276	63	64	0	403	8	5	390
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	17,605	3,310	3,363	0	24,278	623	267	23,388
Remainder	0	0	0	0	0	0	0	0
Total Future	17,605	3,310	3,363	0	24,278	623	267	23,388

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	891	0	439	823	2,153	2,657	2,657		2,543
2021	792	0	127	647	1,566	2,228	4,885		1,924
2022	571	0	184	538	1,293	1,872	6,757		1,462
2023	346	0	157	430	933	1,593	8,350		1,127
2024	240	0	85	344	669	1,356	9,706		868
2025	189	0	84	276	549	1,082	10,788		627
2026	148	0	32	224	404	914	11,702		480
2027	134	0	45	181	360	712	12,414		338
2028	130	0	30	147	307	567	12,981		244
2029	122	0	30	120	272	442	13,423		172
2030	120	0	18	99	237	350	13,773		124
2031	111	0	28	81	220	262	14,035		83
2032	116	0	16	65	197	193	14,228		56
2033	0	0	400	0	400	-400	13,828		-104
2034	0	0	0	0	0	0	13,828		0
Sub-Total	3,910	0	1,675	3,975	9,560	13,828			9,944
Remainder	0	0	0	0	0	0	13,828		0
Total Future	3,910	0	1,675	3,975	9,560	13,828			9,944



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NE MULLINSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 23,697
								12.00% - 19,685
								15.00% - 14,856
								20.00% - 9,177
								25.00% - 5,530

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	38,416	13,350	183	38,416	13,350	155	59.92	2.83
2024	2	115,894	39,859	546	115,894	39,859	465	59.92	2.83
2025	5	409,918	140,976	1,932	409,918	140,976	1,641	59.92	2.83
2026	5	391,919	132,605	1,815	391,919	132,605	1,545	59.92	2.83
2027	5	297,859	98,789	1,353	297,859	98,789	1,149	59.92	2.83
2028	5	226,373	73,598	1,010	226,373	73,598	857	59.92	2.83
2029	5	172,043	54,831	749	172,043	54,831	638	59.92	2.83
2030	5	130,753	40,850	560	130,753	40,850	477	59.92	2.83
2031	5	99,373	30,433	417	99,373	30,433	354	59.92	2.83
2032	5	75,522	22,670	312	73,430	22,043	258	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,958,070	647,961	8,877	1,955,978	647,334	7,539	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,958,070	647,961	8,877	1,955,978	647,334	7,539	59.92	2.83
Cumulative		0	0	0					
Ultimate		1,958,070	647,961	8,877					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	2,302	433	440	0	3,175	83	35	3,057
2024	6,944	1,293	1,313	0	9,550	299	104	9,147
2025	24,563	4,573	4,646	0	33,782	1,152	374	32,256
2026	23,483	4,302	4,369	0	32,154	1,104	355	30,695
2027	17,848	3,205	3,256	0	24,309	766	259	23,284
2028	13,564	2,387	2,425	0	18,376	515	192	17,669
2029	10,309	1,779	1,807	0	13,895	371	143	13,381
2030	7,835	1,325	1,346	0	10,506	275	107	10,124
2031	5,954	987	1,003	0	7,944	202	80	7,662
2032	4,400	716	726	0	5,842	141	58	5,643
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	117,202	21,000	21,331	0	159,533	4,908	1,707	152,918
Remainder	0	0	0	0	0	0	0	0
Total Future	117,202	21,000	21,331	0	159,533	4,908	1,707	152,918

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	415	0	415	-415	-415	-393
2021	0	0	213	0	213	-213	-628	-183
2022	0	0	409	0	409	-409	-1,037	-317
2023	395	0	1,369	520	2,284	773	-264	494
2024	1,127	0	30,230	1,564	32,921	-23,774	-24,038	-14,557
2025	4,047	0	10,227	5,534	19,808	12,448	-11,590	7,010
2026	3,534	0	90	5,272	8,896	21,799	10,209	11,446
2027	3,091	0	129	3,988	7,208	16,076	26,285	7,642
2028	2,731	0	90	3,018	5,839	11,830	38,115	5,090
2029	2,429	0	97	2,285	4,811	8,570	46,685	3,338
2030	2,144	0	59	1,728	3,931	6,193	52,878	2,184
2031	1,937	0	98	1,308	3,343	4,319	57,197	1,379
2032	1,764	0	59	963	2,786	2,857	60,054	826
2033	0	0	1,000	0	1,000	-1,000	59,054	-262
2034	0	0	0	0	0	0	59,054	0
Sub-Total	23,199	0	44,485	26,180	93,864	59,054		23,697
Remainder	0	0	0	0	0	0	59,054	0
Total Future	23,199	0	44,485	26,180	93,864	59,054		23,697



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NORTH WELL 40 (FRASNIAN)

GAS LEASE  
PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00% -	13,454
	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00% -	13,074
								15.00% -	12,541
								20.00% -	11,741
								25.00% -	11,038

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	175,738	35,738	402	167,413	34,045	325	59.92	2.83
2021	1	96,655	20,728	232	92,086	19,748	189	59.92	2.83
2022	1	53,161	12,022	136	53,160	12,023	115	59.92	2.83
2023	1	29,238	6,973	78	29,239	6,972	66	59.92	2.83
2024	1	16,081	4,045	45	16,081	4,045	39	59.92	2.83
2025	1	8,845	2,345	27	8,844	2,345	22	59.92	2.83
2026	1	4,864	1,361	15	4,865	1,361	13	59.92	2.83
2027	1	2,676	789	9	2,675	789	8	59.92	2.83
2028	1	1,471	458	5	1,472	458	4	59.92	2.83
2029	1	810	265	3	809	265	3	59.92	2.83
2030	1	445	154	2	445	154	1	59.92	2.83
2031	1	245	17	0	245	17	0	59.92	2.83
2032	1	134	0	0	132	0	0	59.92	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		390,363	84,895	954	377,466	82,222	785	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		390,363	84,895	954	377,466	82,222	785	59.92	2.83
Cumulative		508,151	0	1,127	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		898,514	84,895	2,081					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	10,031	1,104	920	0	12,055	400	81	11,574
2021	5,518	641	534	0	6,693	199	47	6,447
2022	3,186	390	325	0	3,901	115	29	3,757
2023	1,752	226	188	0	2,166	62	16	2,088
2024	963	131	110	0	1,204	34	10	1,160
2025	530	77	63	0	670	18	5	647
2026	292	44	37	0	373	10	4	359
2027	160	25	21	0	206	4	1	201
2028	88	15	13	0	116	3	2	111
2029	49	9	7	0	65	2	0	63
2030	26	5	4	0	35	0	1	34
2031	15	0	0	0	15	1	0	14
2032	8	0	0	0	8	0	0	8
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	22,618	2,667	2,222	0	27,507	848	196	26,463
Remainder	0	0	0	0	0	0	0	0
Total Future	22,618	2,667	2,222	0	27,507	848	196	26,463

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	2,124	0	561	2,023	4,708	6,866	6,866	6,575
2021	1,342	0	210	1,121	2,673	3,774	10,640	3,268
2022	682	0	212	652	1,546	2,211	12,851	1,734
2023	289	0	125	361	775	1,313	14,164	930
2024	137	0	48	201	386	774	14,938	498
2025	75	0	32	111	218	429	15,367	249
2026	40	0	8	62	110	249	15,616	131
2027	25	0	8	34	67	134	15,750	64
2028	17	0	4	19	40	71	15,821	31
2029	10	0	3	11	24	39	15,860	15
2030	7	0	1	6	14	20	15,880	7
2031	4	0	0	2	6	8	15,888	3
2032	2	0	1	2	5	3	15,891	1
2033	0	0	200	0	200	-200	15,691	-52
2034	0	0	0	0	0	0	15,691	0
Sub-Total	4,754	0	1,413	4,605	10,772	15,691		13,454
Remainder	0	0	0	0	0	0	15,691	0
Total Future	4,754	0	1,413	4,605	10,772	15,691		13,454



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NORTH WELL 43 (FRASNIAN)

GAS LEASE  
PROVED  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00% -	10,798
FINAL	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00% -	9,587
REMARKS								15.00% -	8,023
								20.00% -	5,963
								25.00% -	4,429

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	130,894	29,755	334	130,894	29,755	284	59.92	2.83
2024	1	209,999	48,479	545	209,999	48,479	463	59.92	2.83
2025	1	116,969	27,633	311	116,969	27,633	264	59.92	2.83
2026	1	65,152	15,751	176	65,152	15,751	151	59.92	2.83
2027	1	36,289	8,977	101	36,289	8,977	85	59.92	2.83
2028	1	20,214	5,118	58	20,214	5,118	49	59.92	2.83
2029	1	11,259	2,917	33	11,259	2,917	28	59.92	2.83
2030	1	6,271	1,663	18	6,271	1,663	16	59.92	2.83
2031	1	3,493	947	11	3,493	947	9	59.92	2.83
2032	1	1,945	540	6	1,898	527	5	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		602,485	141,780	1,593	602,438	141,767	1,354	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		602,485	141,780	1,593	602,438	141,767	1,354	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		602,485	141,780	1,593					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	7,843	965	804	0	9,612	280	71	9,261
2024	12,583	1,573	1,311	0	15,467	442	115	14,910
2025	7,009	896	746	0	8,651	237	66	8,348
2026	3,904	511	426	0	4,841	126	37	4,678
2027	2,174	292	243	0	2,709	67	22	2,620
2028	1,212	166	138	0	1,516	37	12	1,467
2029	674	94	79	0	847	20	7	820
2030	376	54	45	0	475	11	4	460
2031	209	31	25	0	265	6	2	257
2032	114	17	15	0	146	4	1	141
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	36,098	4,599	3,832	0	44,529	1,230	337	42,962
Remainder	0	0	0	0	0	0	0	0
Total Future	36,098	4,599	3,832	0	44,529	1,230	337	42,962

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	1,198	0	9,000	1,607	11,805	-2,544	-2,544	-2,055
2024	1,765	0	610	2,584	4,959	9,951	7,407	6,391
2025	970	0	417	1,444	2,831	5,517	12,924	3,210
2026	519	0	111	807	1,437	3,241	16,165	1,706
2027	325	0	105	451	881	1,739	17,904	828
2028	215	0	48	253	516	951	18,855	410
2029	139	0	35	141	315	505	19,360	198
2030	93	0	13	79	185	275	19,635	97
2031	59	0	14	44	117	140	19,775	45
2032	41	0	6	24	71	70	19,845	20
2033	0	0	200	0	200	-200	19,645	-52
2034	0	0	0	0	0	0	19,645	0
Sub-Total	5,324	0	10,559	7,434	23,317	19,645		10,798
Remainder	0	0	0	0	0	0	19,645	0
Total Future	5,324	0	10,559	7,434	23,317	19,645		10,798



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NORTH WELL 44 (FRASNIAN)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	9,677
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	8,411
REMARKS								15.00%	6,812
								20.00%	4,780
								25.00%	3,336

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	153,456	34,914	392	153,456	34,914	333	59.92	2.83
2025	1	200,004	46,260	520	200,004	46,260	442	59.92	2.83
2026	1	111,402	26,369	296	111,402	26,369	252	59.92	2.83
2027	1	62,051	15,030	169	62,051	15,030	144	59.92	2.83
2028	1	34,562	8,567	96	34,562	8,567	81	59.92	2.83
2029	1	19,251	4,883	55	19,251	4,883	47	59.92	2.83
2030	1	10,723	2,784	32	10,723	2,784	27	59.92	2.83
2031	1	5,973	1,586	17	5,973	1,586	15	59.92	2.83
2032	1	3,327	905	11	3,235	880	8	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		600,749	141,298	1,588	600,657	141,273	1,349	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		600,749	141,298	1,588	600,657	141,273	1,349	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		600,749	141,298	1,588	SHRINKAGE FACTOR = 15.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	9,195	1,133	944	0	11,272	396	83	10,793
2025	11,984	1,500	1,250	0	14,734	562	112	14,060
2026	6,676	856	713	0	8,245	314	64	7,867
2027	3,718	487	406	0	4,611	160	36	4,415
2028	2,071	278	231	0	2,580	78	20	2,482
2029	1,153	159	132	0	1,444	42	12	1,390
2030	643	90	76	0	809	22	6	781
2031	358	51	43	0	452	13	4	435
2032	193	29	23	0	245	6	2	237
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	35,991	4,583	3,818	0	44,392	1,593	339	42,460
Remainder	0	0	0	0	0	0	0	0
Total Future	35,991	4,583	3,818	0	44,392	1,593	339	42,460

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	137	0	137	-137	-137	-130
2021	0	0	70	0	70	-70	-207	-60
2022	0	0	135	0	135	-135	-342	-105
2023	0	0	122	0	122	-122	-464	-85
2024	1,338	0	9,075	1,884	12,297	-1,504	-1,968	-1,245
2025	1,761	0	76	2,462	4,299	9,761	7,793	5,675
2026	898	0	29	1,375	2,302	5,565	13,358	2,928
2027	580	0	42	770	1,392	3,023	16,381	1,441
2028	381	0	30	430	841	1,641	18,022	708
2029	250	0	32	240	522	868	18,890	339
2030	164	0	20	134	318	463	19,353	163
2031	109	0	32	75	216	219	19,572	70
2032	74	0	20	41	135	102	19,674	30
2033	0	0	200	0	200	-200	19,474	-52
2034	0	0	0	0	0	0	19,474	0
Sub-Total	5,555	0	10,020	7,411	22,986	19,474		9,677
Remainder	0	0	0	0	0	0	19,474	0
Total Future	5,555	0	10,020	7,411	22,986	19,474		9,677





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 300 (NE MULLINSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00% -	5,451
FINAL	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00% -	5,189
REMARKS	FORMERLY NAMED NE GMO4							15.00% -	4,836
								20.00% -	4,338
								25.00% -	3,929

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	40,117	12,770	175	38,217	12,165	142	59.92	2.83
2021	1	30,104	9,669	132	28,680	9,212	107	59.92	2.83
2022	1	22,590	7,320	101	22,590	7,320	85	59.92	2.83
2023	1	16,951	5,543	76	16,951	5,543	65	59.92	2.83
2024	1	12,720	4,196	57	12,721	4,196	49	59.92	2.83
2025	1	9,546	3,177	44	9,545	3,177	37	59.92	2.83
2026	1	7,163	2,406	33	7,163	2,405	28	59.92	2.83
2027	1	5,375	1,821	24	5,375	1,822	21	59.92	2.83
2028	1	4,033	1,379	19	4,033	1,379	16	59.92	2.83
2029	1	3,027	1,044	15	3,027	1,044	12	59.92	2.83
2030	1	2,271	790	11	2,271	790	9	59.92	2.83
2031	1	1,704	598	8	1,705	598	7	59.92	2.83
2032	1	1,279	453	6	1,247	442	5	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		156,880	51,166	701	153,525	50,093	583	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		156,880	51,166	701	153,525	50,093	583	59.92	2.83
Cumulative		285,115	0	1,351	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		441,995	51,166	2,052					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,290	395	401	0	3,086	91	32	2,963
2021	1,718	298	303	0	2,319	62	24	2,233
2022	1,354	238	242	0	1,834	49	19	1,766
2023	1,016	180	182	0	1,378	36	15	1,327
2024	762	136	139	0	1,037	27	11	999
2025	572	103	104	0	779	19	8	752
2026	429	78	80	0	587	14	6	567
2027	322	59	60	0	441	10	5	426
2028	242	45	45	0	332	7	4	321
2029	181	34	34	0	249	6	2	241
2030	136	25	26	0	187	4	2	181
2031	102	20	20	0	142	3	2	137
2032	75	14	15	0	104	2	1	101
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	9,199	1,625	1,651	0	12,475	330	131	12,014
Remainder	0	0	0	0	0	0	0	0
Total Future	9,199	1,625	1,651	0	12,475	330	131	12,014

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	548	0	148	507	1,203	1,760	1,760	1,680
2021	467	0	74	382	923	1,310	3,070	1,133
2022	319	0	103	301	723	1,043	4,113	815
2023	182	0	81	226	489	838	4,951	593
2024	118	0	42	170	330	669	5,620	428
2025	87	0	39	128	254	498	6,118	289
2026	64	0	14	96	174	393	6,511	206
2027	53	0	17	72	142	284	6,795	135
2028	48	0	11	55	114	207	7,002	90
2029	41	0	11	41	93	148	7,150	58
2030	37	0	5	30	72	109	7,259	38
2031	31	0	8	24	63	74	7,333	24
2032	30	0	4	17	51	50	7,383	14
2033	0	0	200	0	200	-200	7,183	-52
2034	0	0	0	0	0	0	7,183	0
Sub-Total	2,025	0	757	2,049	4,831	7,183		5,451
Remainder	0	0	0	0	0	0	7,183	0
Total Future	2,025	0	757	2,049	4,831	7,183		5,451



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 57 (NE MULLINSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00% -	4,658
FINAL	1.000000	0.975449	0.975449	0.975449	59.92	32.44	2.83	12.00% -	4,358
REMARKS	FORMERLY NE WELL 57_ST							15.00% -	3,965
								20.00% -	3,433
								25.00% -	3,017

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	24,245	8,177	112	23,096	7,790	91	59.92	2.83
2021	1	20,607	7,115	97	19,634	6,778	79	59.92	2.83
2022	1	17,517	6,189	85	17,516	6,189	72	59.92	2.83
2023	1	14,889	5,385	74	14,890	5,385	62	59.92	2.83
2024	1	12,656	4,685	64	12,655	4,685	55	59.92	2.83
2025	1	10,758	4,076	56	10,758	4,076	47	59.92	2.83
2026	1	9,143	3,546	49	9,144	3,546	42	59.92	2.83
2027	1	7,773	3,084	42	7,772	3,085	36	59.92	2.83
2028	1	6,606	2,684	37	6,606	2,684	31	59.92	2.83
2029	1	5,616	2,335	32	5,616	2,335	27	59.92	2.83
2030	1	4,773	2,032	27	4,773	2,031	24	59.92	2.83
2031	1	4,057	1,767	25	4,057	1,768	20	59.92	2.83
2032	1	3,448	1,538	21	3,364	1,499	18	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		142,088	52,613	721	139,881	51,851	604	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		142,088	52,613	721	139,881	51,851	604	59.92	2.83
Cumulative		84,155	0	368	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		226,243	52,613	1,089					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,384	253	257	0	1,894	55	20	1,819
2021	1,176	220	223	0	1,619	43	18	1,558
2022	1,050	200	204	0	1,454	37	16	1,401
2023	892	175	177	0	1,244	32	14	1,198
2024	758	152	155	0	1,065	27	13	1,025
2025	645	132	134	0	911	22	10	879
2026	548	115	117	0	780	17	10	753
2027	466	100	102	0	668	15	8	645
2028	396	87	88	0	571	12	7	552
2029	336	76	77	0	489	10	6	473
2030	286	66	67	0	419	8	5	406
2031	243	57	58	0	358	8	5	345
2032	202	49	50	0	301	6	4	291
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	8,382	1,682	1,709	0	11,773	292	136	11,345
Remainder	0	0	0	0	0	0	0	0
Total Future	8,382	1,682	1,709	0	11,773	292	136	11,345

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	337	0	91	310	738	1,081	1,081	1,029
2021	326	0	53	266	645	913	1,994	790
2022	252	0	82	238	572	829	2,823	647
2023	164	0	74	203	441	757	3,580	535
2024	121	0	44	174	339	686	4,266	440
2025	102	0	45	148	295	584	4,850	337
2026	85	0	19	127	231	522	5,372	275
2027	81	0	27	109	217	428	5,800	203
2028	82	0	18	93	193	359	6,159	154
2029	81	0	21	79	181	292	6,451	114
2030	83	0	12	68	163	243	6,694	85
2031	80	0	20	58	158	187	6,881	60
2032	86	0	12	49	147	144	7,025	42
2033	0	0	200	0	200	-200	6,825	-53
2034	0	0	0	0	0	0	6,825	0
Sub-Total	1,880	0	718	1,922	4,520	6,825		4,658
Remainder	0	0	0	0	0	0	6,825	0
Total Future	1,880	0	718	1,922	4,520	6,825		4,658



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 303 (NE MULLINSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00%	-166
FINAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	12.00%	-163
REMARKS								15.00%	-159
								20.00%	-152
								25.00%	-146

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	426	110	2	405	105	1	59.92	2.83
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		426	110	2	405	105	1	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		426	110	2	405	105	1	59.92	2.83
Cumulative		7,599	0	194	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		8,025	110	196					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	24	3	3	0	30	1	0	29
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	24	3	3	0	30	1	0	29
Remainder	0	0	0	0	0	0	0	0
Total Future	24	3	3	0	30	1	0	29

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	5	0	200	5	210	-181	-181	-166
2021	0	0	0	0	0	0	-181	0
2022	0	0	0	0	0	0	-181	0
2023	0	0	0	0	0	0	-181	0
2024	0	0	0	0	0	0	-181	0
2025	0	0	0	0	0	0	-181	0
2026	0	0	0	0	0	0	-181	0
2027	0	0	0	0	0	0	-181	0
2028	0	0	0	0	0	0	-181	0
2029	0	0	0	0	0	0	-181	0
2030	0	0	0	0	0	0	-181	0
2031	0	0	0	0	0	0	-181	0
2032	0	0	0	0	0	0	-181	0
2033	0	0	0	0	0	0	-181	0
2034	0	0	0	0	0	0	-181	0
Sub-Total	5	0	200	5	210	-181		-166
Remainder	0	0	0	0	0	0	-181	0
Total Future	5	0	200	5	210	-181		-166



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 316 (NE MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00% -	10,421
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00% -	9,219
REMARKS								15.00% -	7,690
								20.00% -	5,715
								25.00% -	4,273

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	38,416	13,350	183	38,416	13,350	155	59.92	2.83
2024	1	96,247	33,020	452	96,247	33,020	385	59.92	2.83
2025	1	73,148	24,600	337	73,148	24,600	286	59.92	2.83
2026	1	55,592	18,327	251	55,592	18,327	214	59.92	2.83
2027	1	42,250	13,653	187	42,250	13,653	159	59.92	2.83
2028	1	32,110	10,172	140	32,110	10,172	118	59.92	2.83
2029	1	24,404	7,578	103	24,404	7,578	88	59.92	2.83
2030	1	18,547	5,646	78	18,547	5,646	66	59.92	2.83
2031	1	14,095	4,206	57	14,095	4,206	49	59.92	2.83
2032	1	10,713	3,133	43	10,416	3,047	36	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		405,522	133,685	1,831	405,225	133,599	1,556	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		405,522	133,685	1,831	405,225	133,599	1,556	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		405,522	133,685	1,831					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	2,302	433	440	0	3,175	83	35	3,057
2024	5,767	1,071	1,088	0	7,926	248	86	7,592
2025	4,383	798	811	0	5,992	206	66	5,720
2026	3,331	595	604	0	4,530	157	49	4,324
2027	2,532	443	449	0	3,424	108	35	3,281
2028	1,924	330	336	0	2,590	73	27	2,490
2029	1,462	246	249	0	1,957	53	20	1,884
2030	1,111	183	186	0	1,480	39	15	1,426
2031	845	136	139	0	1,120	29	11	1,080
2032	624	99	100	0	823	20	7	796
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	24,281	4,334	4,402	0	33,017	1,016	351	31,650
Remainder	0	0	0	0	0	0	0	0
Total Future	24,281	4,334	4,402	0	33,017	1,016	351	31,650

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	0	0	138	0	138	-138	-138	-131	
2021	0	0	71	0	71	-71	-209	-61	
2022	0	0	136	0	136	-136	-345	-105	
2023	395	0	1,123	520	2,038	1,019	674	668	
2024	954	0	76	1,298	2,328	5,264	5,938	3,370	
2025	719	0	76	983	1,778	3,942	9,880	2,287	
2026	497	0	30	743	1,270	3,054	12,934	1,603	
2027	436	0	43	563	1,042	2,239	15,173	1,065	
2028	384	0	30	426	840	1,650	16,823	709	
2029	342	0	32	322	696	1,188	18,011	463	
2030	303	0	20	244	567	859	18,870	304	
2031	273	0	32	184	489	591	19,461	188	
2032	248	0	20	136	404	392	19,853	113	
2033	0	0	200	0	200	-200	19,653	-52	
2034	0	0	0	0	0	0	19,653	0	
Sub-Total	4,551	0	2,027	5,419	11,997	19,653		10,421	
Remainder	0	0	0	0	0	0	19,653	0	
Total Future	4,551	0	2,027	5,419	11,997	19,653		10,421	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 317 (NE MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	3,543
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	2,815
REMARKS								15.00%	1,952
								20.00%	971
								25.00%	374

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	19,647	6,839	94	19,647	6,839	80	59.92	2.83
2025	1	100,752	34,680	475	100,752	34,680	403	59.92	2.83
2026	1	76,571	25,837	354	76,571	25,837	301	59.92	2.83
2027	1	58,194	19,248	263	58,194	19,248	224	59.92	2.83
2028	1	44,228	14,341	197	44,228	14,341	167	59.92	2.83
2029	1	33,612	10,683	146	33,612	10,683	125	59.92	2.83
2030	1	25,546	7,959	109	25,546	7,959	92	59.92	2.83
2031	1	19,415	5,930	81	19,415	5,930	69	59.92	2.83
2032	1	14,755	4,417	61	14,347	4,295	51	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		392,720	129,934	1,780	392,312	129,812	1,512	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		392,720	129,934	1,780	392,312	129,812	1,512	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		392,720	129,934	1,780					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	1,177	222	225	0	1,624	51	18	1,555
2025	6,037	1,125	1,143	0	8,305	283	92	7,930
2026	4,588	838	852	0	6,278	216	69	5,993
2027	3,487	624	634	0	4,745	149	50	4,546
2028	2,651	466	472	0	3,589	101	38	3,450
2029	2,014	346	352	0	2,712	72	28	2,612
2030	1,530	258	263	0	2,051	54	21	1,976
2031	1,164	193	195	0	1,552	39	15	1,498
2032	859	139	142	0	1,140	28	11	1,101
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,507	4,211	4,278	0	31,996	993	342	30,661
Remainder	0	0	0	0	0	0	0	0
Total Future	23,507	4,211	4,278	0	31,996	993	342	30,661

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	72	0	72	-72	-72	-68
2021	0	0	36	0	36	-36	-108	-31
2022	0	0	71	0	71	-71	-179	-55
2023	0	0	63	0	63	-63	-242	-45
2024	173	0	10,040	266	10,479	-8,924	-9,166	-5,649
2025	996	0	39	1,360	2,395	5,535	-3,631	3,209
2026	690	0	15	1,030	1,735	4,258	627	2,235
2027	603	0	23	778	1,404	3,142	3,769	1,494
2028	533	0	15	590	1,138	2,312	6,081	994
2029	474	0	17	446	937	1,675	7,756	653
2030	419	0	10	337	766	1,210	8,966	427
2031	378	0	17	256	651	847	9,813	270
2032	345	0	10	188	543	558	10,371	161
2033	0	0	200	0	200	-200	10,171	-52
2034	0	0	0	0	0	0	10,171	0
Sub-Total	4,611	0	10,628	5,251	20,490	10,171		3,543
Remainder	0	0	0	0	0	0	10,171	0
Total Future	4,611	0	10,628	5,251	20,490	10,171		3,543



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SO MULLINSKI  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 27,720
								12.00% - 23,820
								15.00% - 19,006
								20.00% - 13,088
								25.00% - 9,028

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	273,923	87,886	1,204	273,923	87,886	1,023	59.92	2.83
2025	1	232,834	74,704	1,023	232,834	74,704	870	59.92	2.83
2026	1	197,909	63,497	870	197,909	63,497	740	59.92	2.83
2027	1	168,222	53,974	739	168,222	53,974	628	59.92	2.83
2028	1	142,990	45,877	629	142,990	45,877	534	59.92	2.83
2029	1	121,541	38,995	534	121,541	38,995	454	59.92	2.83
2030	1	103,309	33,147	454	103,309	33,147	386	59.92	2.83
2031	1	87,814	28,174	386	87,814	28,174	328	59.92	2.83
2032	1	74,641	23,948	328	72,573	23,284	271	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Cumulative		0	0	0					
Ultimate		1,403,183	450,202	6,167					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	16,413	2,851	2,896	0	22,160	707	230	21,223
2025	13,952	2,423	2,462	0	18,837	655	198	17,984
2026	11,859	2,060	2,092	0	16,011	557	170	15,284
2027	10,079	1,751	1,779	0	13,609	433	141	13,035
2028	8,568	1,488	1,511	0	11,567	325	120	11,122
2029	7,283	1,265	1,285	0	9,833	262	102	9,469
2030	6,190	1,076	1,093	0	8,359	218	87	8,054
2031	5,262	914	928	0	7,104	178	74	6,852
2032	4,349	755	767	0	5,871	139	61	5,671
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694
Remainder	0	0	0	0	0	0	0	0
Total Future	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	424	0	424	-424	-424	-401
2021	0	0	216	0	216	-216	-640	-186
2022	0	0	418	0	418	-418	-1,058	-324
2023	0	0	10,377	0	10,377	-10,377	-11,435	-7,120
2024	2,664	0	234	3,642	6,540	14,683	3,248	9,395
2025	2,255	0	232	3,095	5,582	12,402	15,650	7,184
2026	1,762	0	92	2,632	4,486	10,798	26,448	5,664
2027	1,734	0	131	2,236	4,101	8,934	35,382	4,243
2028	1,723	0	91	1,901	3,715	7,407	42,789	3,184
2029	1,723	0	100	1,616	3,439	6,030	48,819	2,347
2030	1,710	0	60	1,374	3,144	4,910	53,729	1,730
2031	1,736	0	100	1,167	3,003	3,849	57,578	1,228
2032	1,777	0	61	965	2,803	2,868	60,446	828
2033	0	0	200	0	200	-200	60,246	-52
2034	0	0	0	0	0	0	60,246	0
Sub-Total	17,084	0	12,736	18,628	48,448	60,246		27,720
Remainder	0	0	0	0	0	0	60,246	0
Total Future	17,084	0	12,736	18,628	48,448	60,246		27,720



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
SO MULLINSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED
								MONTHLY
								10.00% - 27,720
								12.00% - 23,820
								15.00% - 19,006
								20.00% - 13,088
								25.00% - 9,028

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	273,923	87,886	1,204	273,923	87,886	1,023	59.92	2.83
2025	1	232,834	74,704	1,023	232,834	74,704	870	59.92	2.83
2026	1	197,909	63,497	870	197,909	63,497	740	59.92	2.83
2027	1	168,222	53,974	739	168,222	53,974	628	59.92	2.83
2028	1	142,990	45,877	629	142,990	45,877	534	59.92	2.83
2029	1	121,541	38,995	534	121,541	38,995	454	59.92	2.83
2030	1	103,309	33,147	454	103,309	33,147	386	59.92	2.83
2031	1	87,814	28,174	386	87,814	28,174	328	59.92	2.83
2032	1	74,641	23,948	328	72,573	23,284	271	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Cumulative		0	0	0					
Ultimate		1,403,183	450,202	6,167					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	16,413	2,851	2,896	0	22,160	707	230	21,223
2025	13,952	2,423	2,462	0	18,837	655	198	17,984
2026	11,859	2,060	2,092	0	16,011	557	170	15,284
2027	10,079	1,751	1,779	0	13,609	433	141	13,035
2028	8,568	1,488	1,511	0	11,567	325	120	11,122
2029	7,283	1,265	1,285	0	9,833	262	102	9,469
2030	6,190	1,076	1,093	0	8,359	218	87	8,054
2031	5,262	914	928	0	7,104	178	74	6,852
2032	4,349	755	767	0	5,871	139	61	5,671
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694
Remainder	0	0	0	0	0	0	0	0
Total Future	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	424	0	424	-424	-424	-401
2021	0	0	216	0	216	-216	-640	-186
2022	0	0	418	0	418	-418	-1,058	-324
2023	0	0	10,377	0	10,377	-10,377	-11,435	-7,120
2024	2,664	0	234	3,642	6,540	14,683	3,248	9,395
2025	2,255	0	232	3,095	5,582	12,402	15,650	7,184
2026	1,762	0	92	2,632	4,486	10,798	26,448	5,664
2027	1,734	0	131	2,236	4,101	8,934	35,382	4,243
2028	1,723	0	91	1,901	3,715	7,407	42,789	3,184
2029	1,723	0	100	1,616	3,439	6,030	48,819	2,347
2030	1,710	0	60	1,374	3,144	4,910	53,729	1,730
2031	1,736	0	100	1,167	3,003	3,849	57,578	1,228
2032	1,777	0	61	965	2,803	2,868	60,446	828
2033	0	0	200	0	200	-200	60,246	-52
2034	0	0	0	0	0	0	60,246	0
Sub-Total	17,084	0	12,736	18,628	48,448	60,246		27,720
Remainder	0	0	0	0	0	0	60,246	0
Total Future	17,084	0	12,736	18,628	48,448	60,246		27,720



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
SOUTH WELL 318 (SOUTH MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	27,720
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	23,820
REMARKS								15.00%	19,006
								20.00%	13,088
								25.00%	9,028

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	273,923	87,886	1,204	273,923	87,886	1,023	59.92	2.83
2025	1	232,834	74,704	1,023	232,834	74,704	870	59.92	2.83
2026	1	197,909	63,497	870	197,909	63,497	740	59.92	2.83
2027	1	168,222	53,974	739	168,222	53,974	628	59.92	2.83
2028	1	142,990	45,877	629	142,990	45,877	534	59.92	2.83
2029	1	121,541	38,995	534	121,541	38,995	454	59.92	2.83
2030	1	103,309	33,147	454	103,309	33,147	386	59.92	2.83
2031	1	87,814	28,174	386	87,814	28,174	328	59.92	2.83
2032	1	74,641	23,948	328	72,573	23,284	271	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,403,183	450,202	6,167	1,401,115	449,538	5,234	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		1,403,183	450,202	6,167	SHRINKAGE FACTOR = 15.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	16,413	2,851	2,896	0	22,160	707	230	21,223
2025	13,952	2,423	2,462	0	18,837	655	198	17,984
2026	11,859	2,060	2,092	0	16,011	557	170	15,284
2027	10,079	1,751	1,779	0	13,609	433	141	13,035
2028	8,568	1,488	1,511	0	11,567	325	120	11,122
2029	7,283	1,265	1,285	0	9,833	262	102	9,469
2030	6,190	1,076	1,093	0	8,359	218	87	8,054
2031	5,262	914	928	0	7,104	178	74	6,852
2032	4,349	755	767	0	5,871	139	61	5,671
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694
Remainder	0	0	0	0	0	0	0	0
Total Future	83,955	14,583	14,813	0	113,351	3,474	1,183	108,694

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	424	0	424	-424	-424	-401
2021	0	0	216	0	216	-216	-640	-186
2022	0	0	418	0	418	-418	-1,058	-324
2023	0	0	10,377	0	10,377	-10,377	-11,435	-7,120
2024	2,664	0	234	3,642	6,540	14,683	3,248	9,395
2025	2,255	0	232	3,095	5,582	12,402	15,650	7,184
2026	1,762	0	92	2,632	4,486	10,798	26,448	5,664
2027	1,734	0	131	2,236	4,101	8,934	35,382	4,243
2028	1,723	0	91	1,901	3,715	7,407	42,789	3,184
2029	1,723	0	100	1,616	3,439	6,030	48,819	2,347
2030	1,710	0	60	1,374	3,144	4,910	53,729	1,730
2031	1,736	0	100	1,167	3,003	3,849	57,578	1,228
2032	1,777	0	61	965	2,803	2,868	60,446	828
2033	0	0	200	0	200	-200	60,246	-52
2034	0	0	0	0	0	0	60,246	0
Sub-Total	17,084	0	12,736	18,628	48,448	60,246		27,720
Remainder	0	0	0	0	0	0	60,246	0
Total Future	17,084	0	12,736	18,628	48,448	60,246		27,720





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH MULLINSKI  
TOTAL PROVED AND PROBABLE

PROVED AND  
PROBABLE

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	198
FINAL								12.00%	204
REMARKS								15.00%	213
								20.00%	223
								25.00%	231

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	4,231	4,174	47	4,030	3,976	38	59.92	2.83
2021	1	592	1,169	13	565	1,114	11	59.92	2.83
2022	1	83	327	4	82	327	3	59.92	2.83
2023	1	7	43	0	8	44	0	59.92	2.83
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Cumulative		215,266	0	761					
Ultimate		220,179	5,713	825					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	241	129	107	0	477	10	9	458
2021	34	36	31	0	101	1	3	97
2022	5	11	8	0	24	0	1	23
2023	1	1	2	0	4	0	0	4
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	281	177	148	0	606	11	13	582
Remainder	0	0	0	0	0	0	0	0
Total Future	281	177	148	0	606	11	13	582

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	84	0	20	74	178	280	280	271
2021	21	0	3	15	39	58	338	50
2022	4	0	1	3	8	15	353	12
2023	1	0	200	1	202	-198	155	-135
2024	0	0	0	0	0	0	155	0
2025	0	0	0	0	0	0	155	0
2026	0	0	0	0	0	0	155	0
2027	0	0	0	0	0	0	155	0
2028	0	0	0	0	0	0	155	0
2029	0	0	0	0	0	0	155	0
2030	0	0	0	0	0	0	155	0
2031	0	0	0	0	0	0	155	0
2032	0	0	0	0	0	0	155	0
2033	0	0	0	0	0	0	155	0
2034	0	0	0	0	0	0	155	0
Sub-Total	110	0	224	93	427	155		198
Remainder	0	0	0	0	0	0	155	0
Total Future	110	0	224	93	427	155		198



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH MULLINSKI  
TOTAL PROVED

TOTAL  
PROVED

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL								10.00%	198
FINAL								12.00%	204
REMARKS								15.00%	213
								20.00%	223
								25.00%	231

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	4,231	4,174	47	4,030	3,976	38	59.92	2.83
2021	1	592	1,169	13	565	1,114	11	59.92	2.83
2022	1	83	327	4	82	327	3	59.92	2.83
2023	1	7	43	0	8	44	0	59.92	2.83
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Cumulative		215,266	0	761					
Ultimate		220,179	5,713	825					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	241	129	107	0	477	10	9	458
2021	34	36	31	0	101	1	3	97
2022	5	11	8	0	24	0	1	23
2023	1	1	2	0	4	0	0	4
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	281	177	148	0	606	11	13	582
Remainder	0	0	0	0	0	0	0	0
Total Future	281	177	148	0	606	11	13	582

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	84	0	20	74	178	280	280	271
2021	21	0	3	15	39	58	338	50
2022	4	0	1	3	8	15	353	12
2023	1	0	200	1	202	-198	155	-135
2024	0	0	0	0	0	0	155	0
2025	0	0	0	0	0	0	155	0
2026	0	0	0	0	0	0	155	0
2027	0	0	0	0	0	0	155	0
2028	0	0	0	0	0	0	155	0
2029	0	0	0	0	0	0	155	0
2030	0	0	0	0	0	0	155	0
2031	0	0	0	0	0	0	155	0
2032	0	0	0	0	0	0	155	0
2033	0	0	0	0	0	0	155	0
2034	0	0	0	0	0	0	155	0
Sub-Total	110	0	224	93	427	155		198
Remainder	0	0	0	0	0	0	155	0
Total Future	110	0	224	93	427	155		198



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
NORTH MULLINSKI  
TOTAL PROBABLE

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M
								COMPOUNDED
								MONTHLY
								10.00% - 0
								12.00% - 0
								15.00% - 0
								20.00% - 0
								25.00% - 0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %
						Annual	Cumulative	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0		0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NORTH WELL 724 (NORTH MULLINSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY	
INITIAL	1.000000	0.952629	0.952629	0.952629	59.92	32.44	2.83	10.00%	198
FINAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	12.00%	204
REMARKS								15.00%	213
								20.00%	223
								25.00%	231

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	4,231	4,174	47	4,030	3,976	38	59.92	2.83
2021	1	592	1,169	13	565	1,114	11	59.92	2.83
2022	1	83	327	4	82	327	3	59.92	2.83
2023	1	7	43	0	8	44	0	59.92	2.83
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		4,913	5,713	64	4,685	5,461	52	59.92	2.83
Cumulative		215,266	0	761	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		220,179	5,713	825					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	241	129	107	0	477	10	9	458
2021	34	36	31	0	101	1	3	97
2022	5	11	8	0	24	0	1	23
2023	1	1	2	0	4	0	0	4
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	281	177	148	0	606	11	13	582
Remainder	0	0	0	0	0	0	0	0
Total Future	281	177	148	0	606	11	13	582

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	84	0	20	74	178	280	280	271
2021	21	0	3	15	39	58	338	50
2022	4	0	1	3	8	15	353	12
2023	1	0	200	1	202	-198	155	-135
2024	0	0	0	0	0	0	155	0
2025	0	0	0	0	0	0	155	0
2026	0	0	0	0	0	0	155	0
2027	0	0	0	0	0	0	155	0
2028	0	0	0	0	0	0	155	0
2029	0	0	0	0	0	0	155	0
2030	0	0	0	0	0	0	155	0
2031	0	0	0	0	0	0	155	0
2032	0	0	0	0	0	0	155	0
2033	0	0	0	0	0	0	155	0
2034	0	0	0	0	0	0	155	0
Sub-Total	110	0	224	93	427	155		198
Remainder	0	0	0	0	0	0	155	0
Total Future	110	0	224	93	427	155		198



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 319 (NE MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	3,316
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	2,613
REMARKS								15.00%	1,788
								20.00%	862
								25.00%	312

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	89,836	31,073	426	89,836	31,073	362	59.92	2.83
2026	1	83,906	28,501	390	83,906	28,501	332	59.92	2.83
2027	1	63,769	21,233	291	63,769	21,233	247	59.92	2.83
2028	1	48,464	15,818	217	48,464	15,818	184	59.92	2.83
2029	1	36,833	11,785	161	36,833	11,785	137	59.92	2.83
2030	1	27,993	8,780	120	27,993	8,780	103	59.92	2.83
2031	1	21,275	6,541	90	21,275	6,541	76	59.92	2.83
2032	1	16,168	4,872	67	15,720	4,737	55	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		388,244	128,603	1,762	387,796	128,468	1,496	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		388,244	128,603	1,762	387,796	128,468	1,496	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		388,244	128,603	1,762					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	5,383	1,008	1,024	0	7,415	252	82	7,081
2026	5,028	925	939	0	6,892	237	77	6,578
2027	3,821	688	700	0	5,209	164	55	4,990
2028	2,904	514	521	0	3,939	110	42	3,787
2029	2,207	382	388	0	2,977	79	30	2,868
2030	1,677	285	290	0	2,252	59	23	2,170
2031	1,275	212	215	0	1,702	44	18	1,640
2032	942	154	156	0	1,252	30	12	1,210
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,237	4,168	4,233	0	31,638	975	339	30,324
Remainder	0	0	0	0	0	0	0	0
Total Future	23,237	4,168	4,233	0	31,638	975	339	30,324

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	69	0	69	-69	-69	-66
2021	0	0	36	0	36	-36	-105	-30
2022	0	0	68	0	68	-68	-173	-53
2023	0	0	62	0	62	-62	-235	-43
2024	0	0	10,038	0	10,038	-10,038	-10,273	-6,128
2025	888	0	38	1,214	2,140	4,941	-5,332	2,838
2026	757	0	15	1,130	1,902	4,676	-656	2,456
2027	662	0	21	855	1,538	3,452	2,796	1,640
2028	586	0	15	646	1,247	2,540	5,336	1,093
2029	520	0	17	490	1,027	1,841	7,177	717
2030	460	0	9	370	839	1,331	8,508	469
2031	415	0	17	280	712	928	9,436	297
2032	378	0	10	207	595	615	10,051	178
2033	0	0	200	0	200	-200	9,851	-52
2034	0	0	0	0	0	0	9,851	0
Sub-Total	4,666	0	10,615	5,192	20,473	9,851		3,316
Remainder	0	0	0	0	0	0	9,851	0
Total Future	4,666	0	10,615	5,192	20,473	9,851		3,316



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NE WELL 320 (NE MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00%	3,102
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00%	2,425
REMARKS								15.00%	1,638
								20.00%	767
								25.00%	259

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	56,346	19,550	268	56,346	19,550	228	59.92	2.83
2026	1	91,944	31,439	430	91,944	31,439	366	59.92	2.83
2027	1	69,877	23,422	321	69,877	23,422	272	59.92	2.83
2028	1	53,107	17,449	239	53,107	17,449	204	59.92	2.83
2029	1	40,361	13,000	178	40,361	13,000	151	59.92	2.83
2030	1	30,674	9,685	133	30,674	9,685	113	59.92	2.83
2031	1	23,313	7,215	99	23,313	7,215	84	59.92	2.83
2032	1	17,718	5,376	74	17,718	5,376	61	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		383,340	127,136	1,742	382,849	126,987	1,479	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		383,340	127,136	1,742	382,849	126,987	1,479	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		383,340	127,136	1,742	SHRINKAGE FACTOR = 15.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	3,376	634	644	0	4,654	158	52	4,444
2026	5,510	1,020	1,036	0	7,566	259	84	7,223
2027	4,187	760	772	0	5,719	180	61	5,478
2028	3,182	566	575	0	4,323	121	46	4,156
2029	2,418	422	428	0	3,268	87	34	3,147
2030	1,838	314	319	0	2,471	64	25	2,382
2031	1,397	234	238	0	1,869	48	19	1,802
2032	1,032	169	172	0	1,373	33	14	1,326
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	22,940	4,119	4,184	0	31,243	950	335	29,958
Remainder	0	0	0	0	0	0	0	0
Total Future	22,940	4,119	4,184	0	31,243	950	335	29,958

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	67	0	67	-67	-67	-63
2021	0	0	34	0	34	-34	-101	-30
2022	0	0	66	0	66	-66	-167	-51
2023	0	0	60	0	60	-60	-227	-42
2024	0	0	37	0	37	-37	-264	-24
2025	557	0	10,037	762	11,356	-6,912	-7,176	-4,161
2026	832	0	14	1,240	2,086	5,137	-2,039	2,697
2027	727	0	21	938	1,686	3,792	1,753	1,802
2028	643	0	14	709	1,366	2,790	4,543	1,201
2029	571	0	16	537	1,124	2,023	6,566	788
2030	505	0	10	407	922	1,460	8,026	515
2031	455	0	15	307	777	1,025	9,051	327
2032	415	0	10	227	652	674	9,725	195
2033	0	0	200	0	200	-200	9,525	-52
2034	0	0	0	0	0	0	9,525	0
Sub-Total	4,705	0	10,601	5,127	20,433	9,525		3,102
Remainder	0	0	0	0	0	0	9,525	0
Total Future	4,705	0	10,601	5,127	20,433	9,525		3,102



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 321 (NE MULLINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	59.92	32.44	2.83	10.00% -	3,316
FINAL	1.000000	0.972291	0.972291	0.972291	59.92	32.44	2.83	12.00% -	2,613
REMARKS								15.00% -	1,788
								20.00% -	862
								25.00% -	312

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	89,836	31,073	426	89,836	31,073	362	59.92	2.83
2026	1	83,906	28,501	390	83,906	28,501	332	59.92	2.83
2027	1	63,769	21,233	291	63,769	21,233	247	59.92	2.83
2028	1	48,464	15,818	217	48,464	15,818	184	59.92	2.83
2029	1	36,833	11,785	161	36,833	11,785	137	59.92	2.83
2030	1	27,993	8,780	120	27,993	8,780	103	59.92	2.83
2031	1	21,275	6,541	90	21,275	6,541	76	59.92	2.83
2032	1	16,168	4,872	67	15,720	4,737	55	59.92	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		388,244	128,603	1,762	387,796	128,468	1,496	59.92	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		388,244	128,603	1,762	387,796	128,468	1,496	59.92	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 15.00 %				
Ultimate		388,244	128,603	1,762					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	5,383	1,008	1,024	0	7,415	252	82	7,081
2026	5,028	925	939	0	6,892	237	77	6,578
2027	3,821	688	700	0	5,209	164	55	4,990
2028	2,904	514	521	0	3,939	110	42	3,787
2029	2,207	382	388	0	2,977	79	30	2,868
2030	1,677	285	290	0	2,252	59	23	2,170
2031	1,275	212	215	0	1,702	44	18	1,640
2032	942	154	156	0	1,252	30	12	1,210
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,237	4,168	4,233	0	31,638	975	339	30,324
Remainder	0	0	0	0	0	0	0	0
Total Future	23,237	4,168	4,233	0	31,638	975	339	30,324

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	69	0	69	-69	-69	-66
2021	0	0	36	0	36	-36	-105	-30
2022	0	0	68	0	68	-68	-173	-53
2023	0	0	62	0	62	-62	-235	-43
2024	0	0	10,038	0	10,038	-10,038	-10,273	-6,128
2025	888	0	38	1,214	2,140	4,941	-5,332	2,838
2026	757	0	15	1,130	1,902	4,676	-656	2,456
2027	662	0	21	855	1,538	3,452	2,796	1,640
2028	586	0	15	646	1,247	2,540	5,336	1,093
2029	520	0	17	490	1,027	1,841	7,177	717
2030	460	0	9	370	839	1,331	8,508	469
2031	415	0	17	280	712	928	9,436	297
2032	378	0	10	207	595	615	10,051	178
2033	0	0	200	0	200	-200	9,851	-52
2034	0	0	0	0	0	0	9,851	0
Sub-Total	4,666	0	10,615	5,192	20,473	9,851		3,316
Remainder	0	0	0	0	0	0	9,851	0
Total Future	4,666	0	10,615	5,192	20,473	9,851		3,316



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BISKI & AFONINSKI  
TOTAL PROVED & PROBABLE RESERVES

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	761,808	
							12.00%	684,066	
							15.00%	585,952	
							20.00%	460,662	
							25.00%	369,931	

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	14	1,209,676	820,426	19,073	1,152,503	781,646	16,354	53.03	2.83
2021	15	981,202	733,783	17,479	935,175	699,307	14,996	53.03	2.83
2022	22	1,235,253	945,719	22,245	1,210,553	930,350	19,667	53.03	2.83
2023	24	1,817,509	1,204,329	28,069	1,817,511	1,204,326	25,264	53.03	2.83
2024	28	2,066,655	1,349,911	31,323	2,066,649	1,349,915	28,195	53.03	2.83
2025	30	2,467,674	1,621,381	37,454	2,467,676	1,621,380	33,705	53.03	2.83
2026	33	2,934,524	1,924,740	44,303	2,934,523	1,924,742	39,868	53.03	2.83
2027	32	2,157,218	1,557,991	35,929	2,157,218	1,557,988	32,338	53.03	2.83
2028	32	1,560,711	1,246,274	28,809	1,560,714	1,246,277	25,928	53.03	2.83
2029	32	1,131,752	999,366	23,161	1,131,747	999,363	20,842	53.03	2.83
2030	31	822,684	803,422	18,675	822,688	803,422	16,810	53.03	2.83
2031	31	599,616	647,713	15,108	599,616	647,714	13,600	53.03	2.83
2032	31	438,271	523,743	12,263	426,340	509,703	10,745	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		19,422,745	14,378,798	333,891	19,282,913	14,276,133	298,312	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		19,422,745	14,378,798	333,891	19,282,913	14,276,133	298,312	53.03	2.83
Cumulative		21,399,196	0	185,816					
Ultimate		40,821,941	14,378,798	519,707					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	61,117	25,357	46,283	0	132,757	2,419	2,866	127,472
2021	49,593	22,685	42,441	0	114,719	1,747	2,605	110,367
2022	64,195	30,181	55,657	0	150,033	2,202	3,433	144,398
2023	96,383	39,068	71,488	0	206,939	3,459	4,422	199,058
2024	109,594	43,791	79,790	0	233,175	4,500	4,944	223,731
2025	130,861	52,598	95,388	0	278,847	5,860	5,983	267,004
2026	155,618	62,438	112,841	0	330,897	7,078	7,138	316,681
2027	114,397	50,542	91,510	0	256,449	4,758	5,682	246,009
2028	82,765	40,429	73,373	0	196,567	3,068	4,552	188,947
2029	60,016	32,419	58,993	0	151,428	2,115	3,656	145,657
2030	43,628	26,063	47,570	0	117,261	1,502	2,946	112,813
2031	31,797	21,012	38,483	0	91,292	1,060	2,380	87,852
2032	22,609	16,535	30,397	0	69,541	716	1,877	66,948
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,022,573	463,118	844,214	0	2,329,905	40,484	52,484	2,236,937
Remainder	0	0	0	0	0	0	0	0
Total Future	1,022,573	463,118	844,214	0	2,329,905	40,484	52,484	2,236,937

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	26,059	0	12,889	12,760	51,708	75,764	75,764	72,318	
2021	24,819	0	22,419	11,318	58,556	51,811	127,575	44,622	
2022	29,248	0	45,062	14,858	89,168	55,230	182,805	42,605	
2023	31,300	0	33,666	19,791	84,757	114,301	297,106	80,357	
2024	29,740	0	60,705	22,210	112,655	111,076	408,182	70,885	
2025	35,647	0	50,936	26,577	113,160	153,844	562,026	88,815	
2026	39,487	0	2,841	31,506	73,834	242,847	804,873	127,422	
2027	35,080	0	3,721	24,973	63,774	182,235	987,108	86,623	
2028	31,323	0	2,573	19,581	53,477	135,470	1,122,578	58,290	
2029	28,188	0	2,749	15,421	46,358	99,299	1,221,877	38,680	
2030	25,495	0	1,843	12,195	39,533	73,280	1,295,157	25,838	
2031	23,372	0	2,657	9,689	35,718	52,134	1,347,291	16,644	
2032	22,087	0	1,588	7,526	31,201	35,747	1,383,038	10,333	
2033	0	0	6,200	0	6,200	-6,200	1,376,838	-1,624	
2034	0	0	0	0	0	0	1,376,838	0	
Sub-Total	381,845	0	249,849	228,405	860,099	1,376,838		761,808	
Remainder	0	0	0	0	0	0	1,376,838	0	
Total Future	381,845	0	249,849	228,405	860,099	1,376,838		761,808	





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BISKI & AFONINSKI  
TOTAL PROVED RESERVES

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	329,639
							12.00%	—	308,180
							15.00%	—	280,152
							20.00%	—	242,278
							25.00%	—	212,710

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	13	1,171,533	795,784	18,087	1,116,038	758,088	15,506	53.03	2.83
2021	13	838,679	648,085	14,726	799,027	617,443	12,628	53.03	2.83
2022	16	790,479	668,925	15,206	790,481	668,928	13,684	53.03	2.83
2023	16	696,707	643,178	14,617	696,707	643,175	13,158	53.03	2.83
2024	16	525,217	539,960	12,268	525,215	539,963	11,043	53.03	2.83
2025	15	399,164	455,434	10,354	399,164	455,434	9,316	53.03	2.83
2026	15	305,414	385,567	8,761	305,413	385,568	7,884	53.03	2.83
2027	14	235,051	327,360	7,441	235,051	327,358	6,696	53.03	2.83
2028	14	181,836	278,667	6,334	181,838	278,670	5,701	53.03	2.83
2029	14	141,336	237,758	5,405	141,334	237,756	4,862	53.03	2.83
2030	13	110,321	203,238	4,617	110,322	203,237	4,157	53.03	2.83
2031	13	86,475	174,078	3,956	86,477	174,080	3,561	53.03	2.83
2032	13	68,039	149,377	3,394	66,365	145,711	2,982	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		5,550,251	5,507,411	125,166	5,453,432	5,435,411	111,178	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		5,550,251	5,507,411	125,166	5,453,432	5,435,411	111,178	53.03	2.83
Cumulative		21,399,196	0	185,816					
Ultimate		26,949,447	5,507,411	310,982					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	59,184	24,592	43,883	0	127,659	2,361	2,739	122,559
2021	42,372	20,030	35,742	0	98,144	1,530	2,231	94,383
2022	41,919	21,700	38,721	0	102,340	1,505	2,417	98,418
2023	36,946	20,865	37,231	0	95,042	1,319	2,324	91,399
2024	27,853	17,516	31,257	0	76,626	978	1,950	73,698
2025	21,167	14,775	26,363	0	62,305	715	1,646	59,944
2026	16,196	12,507	22,319	0	51,022	525	1,393	49,104
2027	12,465	10,620	18,950	0	42,035	385	1,183	40,467
2028	9,643	9,040	16,131	0	34,814	289	1,007	33,518
2029	7,495	7,713	13,763	0	28,971	225	859	27,887
2030	5,850	6,593	11,765	0	24,208	176	734	23,298
2031	4,586	5,647	10,077	0	20,310	137	629	19,544
2032	3,520	4,727	8,434	0	16,681	106	526	16,049
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	289,196	176,325	314,636	0	780,157	10,251	19,638	750,268
Remainder	0	0	0	0	0	0	0	0
Total Future	289,196	176,325	314,636	0	780,157	10,251	19,638	750,268

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	24,639	0	6,625	12,229	43,493	79,066	79,066	75,510	
2021	21,320	0	3,415	9,681	34,416	59,967	139,033	51,787	
2022	18,868	0	17,485	10,297	46,650	51,768	190,801	39,910	
2023	13,477	0	6,095	9,739	29,311	62,088	252,889	43,905	
2024	9,352	0	3,342	8,026	20,720	52,978	305,867	33,921	
2025	7,450	0	3,501	6,657	17,608	42,336	348,203	24,536	
2026	5,870	0	1,484	5,554	12,908	36,196	384,399	18,997	
2027	5,415	0	1,787	4,653	11,855	28,612	413,011	13,593	
2028	5,270	0	1,216	3,915	10,401	23,117	436,128	9,942	
2029	5,060	0	1,277	3,306	9,643	18,244	454,372	7,104	
2030	5,028	0	948	2,798	8,774	14,524	468,896	5,118	
2031	4,775	0	1,185	2,377	8,337	11,207	480,103	3,576	
2032	4,994	0	693	1,974	7,661	8,388	488,491	2,422	
2033	0	0	2,600	0	2,600	-2,600	485,891	-682	
2034	0	0	0	0	0	0	485,891	0	
Sub-Total	131,518	0	51,653	81,206	264,377	485,891		329,639	
Remainder	0	0	0	0	0	0	485,891	0	
Total Future	131,518	0	51,653	81,206	264,377	485,891		329,639	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

GRAND SUMMARY  
BISKI & AFONINSKI  
TOTAL PROBABLE RESERVES

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	432,168
							12.00%	—	375,886
							15.00%	—	305,799
							20.00%	—	218,383
							25.00%	—	157,221

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	38,143	24,642	986	36,465	23,558	848	53.03	2.83
2021	2	142,523	85,698	2,753	136,148	81,864	2,368	53.03	2.83
2022	6	444,774	276,794	7,039	420,072	261,422	5,983	53.03	2.83
2023	8	1,120,802	561,151	13,452	1,120,804	561,151	12,106	53.03	2.83
2024	12	1,541,438	809,951	19,055	1,541,434	809,952	17,152	53.03	2.83
2025	15	2,068,510	1,165,947	27,100	2,068,512	1,165,946	24,389	53.03	2.83
2026	18	2,629,110	1,539,173	35,542	2,629,110	1,539,174	31,984	53.03	2.83
2027	18	1,922,167	1,230,631	28,488	1,922,167	1,230,630	25,642	53.03	2.83
2028	18	1,378,875	967,607	22,475	1,378,876	967,607	20,227	53.03	2.83
2029	18	990,416	761,608	17,756	990,413	761,607	15,980	53.03	2.83
2030	18	712,363	600,184	14,058	712,366	600,185	12,653	53.03	2.83
2031	18	513,141	473,635	11,152	513,139	473,634	10,039	53.03	2.83
2032	18	370,232	374,366	8,869	359,975	363,992	7,763	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		13,872,494	8,871,387	208,725	13,829,481	8,840,722	187,134	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		13,872,494	8,871,387	208,725	13,829,481	8,840,722	187,134	53.03	2.83
Cumulative		0	0	0					
Ultimate		13,872,494	8,871,387	208,725					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,934	764	2,400	0	5,098	58	127	4,913
2021	7,220	2,656	6,700	0	16,576	217	374	15,985
2022	22,276	8,480	16,935	0	47,691	697	1,016	45,978
2023	59,436	18,204	34,256	0	111,896	2,140	2,099	107,657
2024	81,743	26,275	48,534	0	156,552	3,523	2,992	150,037
2025	109,693	37,823	69,025	0	216,541	5,144	4,338	207,059
2026	139,422	49,931	90,521	0	279,874	6,553	5,745	267,576
2027	101,932	39,922	72,561	0	214,415	4,373	4,499	205,543
2028	73,122	31,389	57,242	0	161,753	2,779	3,545	155,429
2029	52,521	24,706	45,230	0	122,457	1,890	2,798	117,769
2030	37,777	19,470	35,806	0	93,053	1,326	2,211	89,516
2031	27,212	15,365	28,405	0	70,982	923	1,751	68,308
2032	19,089	11,808	21,963	0	52,860	611	1,350	50,899
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	733,377	286,793	529,578	0	1,549,748	30,234	32,845	1,486,669
Remainder	0	0	0	0	0	0	0	0
Total Future	733,377	286,793	529,578	0	1,549,748	30,234	32,845	1,486,669

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	1,420	0	6,264	531	8,215	-3,302	-3,302	-3,192	
2021	3,499	0	19,004	1,637	24,140	-8,155	-11,457	-7,165	
2022	10,380	0	27,577	4,562	42,519	3,459	-7,998	2,696	
2023	17,823	0	27,571	10,051	55,445	52,212	44,214	36,451	
2024	20,388	0	57,364	14,185	91,937	58,100	102,314	36,964	
2025	28,197	0	47,435	19,919	95,551	111,508	213,822	64,279	
2026	33,618	0	1,356	25,952	60,926	206,650	420,472	108,425	
2027	29,664	0	1,934	20,319	51,917	153,626	574,098	73,030	
2028	26,052	0	1,357	15,667	43,076	112,353	686,451	48,348	
2029	23,129	0	1,472	12,115	36,716	81,053	767,504	31,576	
2030	20,467	0	895	9,397	30,759	58,757	826,261	20,720	
2031	18,597	0	1,472	7,312	27,381	40,927	867,188	13,069	
2032	17,092	0	895	5,551	23,538	27,361	894,549	7,910	
2033	0	0	3,600	0	3,600	-3,600	890,949	-943	
2034	0	0	0	0	0	0	890,949	0	
Sub-Total	250,326	0	198,196	147,198	595,720	890,949		432,168	
Remainder	0	0	0	0	0	0	890,949	0	
Total Future	250,326	0	198,196	147,198	595,720	890,949		432,168	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
WEST AREA  
TOTAL PROBABLE RESERVES

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	251,311
							12.00%	—	216,610
							15.00%	—	173,714
							20.00%	—	120,856
							25.00%	—	84,477

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	74,355	39,036	887	71,029	37,290	763	53.03	2.83
2022	2	306,078	173,067	3,933	289,079	163,455	3,343	53.03	2.83
2023	3	563,917	326,059	7,411	563,918	326,059	6,670	53.03	2.83
2024	4	724,596	430,776	9,790	724,594	430,776	8,812	53.03	2.83
2025	7	961,034	571,687	12,994	961,034	571,687	11,693	53.03	2.83
2026	10	1,839,124	1,066,102	24,229	1,839,125	1,066,102	21,805	53.03	2.83
2027	10	1,356,659	853,154	19,391	1,356,659	853,154	17,452	53.03	2.83
2028	10	972,537	665,629	15,127	972,538	665,629	13,616	53.03	2.83
2029	10	697,270	519,326	11,801	697,268	519,326	10,622	53.03	2.83
2030	10	499,975	405,177	9,210	499,976	405,177	8,288	53.03	2.83
2031	10	358,552	316,117	7,184	358,551	316,117	6,466	53.03	2.83
2032	10	257,158	246,638	5,606	250,034	239,802	4,906	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		8,611,255	5,612,768	127,563	8,583,805	5,594,574	114,436	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		8,611,255	5,612,768	127,563	8,583,805	5,594,574	114,436	53.03	2.83
Cumulative		0	0	0					
Ultimate		8,611,255	5,612,768	127,563					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	3,767	1,210	2,159	0	7,136	113	135	6,888
2022	15,330	5,302	9,461	0	30,093	480	590	29,023
2023	29,904	10,577	18,875	0	59,356	1,076	1,178	57,102
2024	38,425	13,975	24,936	0	77,336	1,657	1,557	74,122
2025	50,964	18,545	33,093	0	102,602	2,390	2,096	98,116
2026	97,529	34,585	61,712	0	193,826	4,584	3,939	185,303
2027	71,943	27,676	49,386	0	149,005	3,086	3,082	142,837
2028	51,574	21,593	38,531	0	111,698	1,960	2,405	107,333
2029	36,976	16,847	30,062	0	83,885	1,331	1,877	80,677
2030	26,514	13,144	23,454	0	63,112	931	1,464	60,717
2031	19,014	10,255	18,299	0	47,568	644	1,142	45,782
2032	13,259	7,779	13,882	0	34,920	424	866	33,630
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	455,199	181,488	323,850	0	960,537	18,676	20,331	921,530
Remainder	0	0	0	0	0	0	0	0
Total Future	455,199	181,488	323,850	0	960,537	18,676	20,331	921,530

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	3,792	0	3,792	-3,792	-3,792	-3,593	
2021	1,497	0	12,939	643	15,079	-8,191	-11,983	-7,158	
2022	6,474	0	14,740	2,759	23,973	5,050	-6,933	3,735	
2023	9,503	0	25,372	5,473	40,348	16,754	9,821	11,639	
2024	10,128	0	24,097	7,179	41,404	32,718	42,539	21,249	
2025	13,255	0	46,079	9,525	68,859	29,257	71,796	16,582	
2026	23,304	0	822	17,882	42,008	143,295	215,091	75,162	
2027	20,629	0	1,170	14,018	35,817	107,020	322,111	50,876	
2028	18,007	0	822	10,719	29,548	77,785	399,896	33,475	
2029	15,862	0	891	8,206	24,959	55,718	455,614	21,707	
2030	13,901	0	542	6,291	20,734	39,983	495,597	14,101	
2031	12,483	0	891	4,828	18,202	27,580	523,177	8,807	
2032	11,313	0	541	3,607	15,461	18,169	541,346	5,252	
2033	0	0	2,000	0	2,000	-2,000	539,346	-523	
2034	0	0	0	0	0	0	539,346	0	
Sub-Total	156,356	0	134,698	91,130	382,184	539,346		251,311	
Remainder	0	0	0	0	0	0	539,346	0	
Total Future	156,356	0	134,698	91,130	382,184	539,346		251,311	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROVED & PROBABLE RESERVES

PROVED AND  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	432,293
							12.00%	—	400,250
							15.00%	—	358,650
							20.00%	—	303,014
							25.00%	—	260,206

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	14	1,209,676	820,426	19,073	1,152,503	781,646	16,354	53.03	2.83
2021	14	906,847	694,747	16,592	864,146	662,017	14,233	53.03	2.83
2022	20	929,175	772,652	18,312	921,474	766,895	16,324	53.03	2.83
2023	21	1,253,592	878,270	20,658	1,253,593	878,267	18,594	53.03	2.83
2024	21	1,074,405	779,092	18,349	1,074,401	779,096	16,518	53.03	2.83
2025	20	782,387	652,642	15,438	782,389	652,641	13,890	53.03	2.83
2026	20	575,314	548,859	13,032	575,312	548,861	11,728	53.03	2.83
2027	19	427,084	463,145	11,045	427,084	463,142	9,942	53.03	2.83
2028	19	319,983	392,079	9,396	319,985	392,082	8,455	53.03	2.83
2029	19	241,893	332,919	8,017	241,890	332,916	7,211	53.03	2.83
2030	18	184,412	283,463	6,857	184,415	283,463	6,174	53.03	2.83
2031	18	141,753	242,042	5,889	141,754	242,043	5,301	53.03	2.83
2032	18	109,797	207,235	5,070	106,965	201,966	4,449	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		8,156,318	7,067,571	167,728	8,045,911	6,985,035	149,173	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		8,156,318	7,067,571	167,728	8,045,911	6,985,035	149,173	53.03	2.83
Cumulative		21,399,196	0	185,816					
Ultimate		29,555,514	7,067,571	353,544					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	61,117	25,357	46,283	0	132,757	2,419	2,866	127,472
2021	45,826	21,475	40,283	0	107,584	1,634	2,470	103,480
2022	48,866	24,879	46,195	0	119,940	1,722	2,843	115,375
2023	66,478	28,491	52,613	0	147,582	2,382	3,244	141,956
2024	56,975	25,273	46,747	0	128,995	2,233	2,881	123,881
2025	41,490	21,172	39,312	0	101,974	1,669	2,431	97,874
2026	30,509	17,805	33,196	0	81,510	1,197	2,054	78,259
2027	22,648	15,024	28,133	0	65,805	822	1,727	63,256
2028	16,969	12,719	23,927	0	53,615	568	1,466	51,581
2029	12,828	10,800	20,415	0	44,043	417	1,248	42,378
2030	9,779	9,196	17,472	0	36,447	313	1,067	35,067
2031	7,517	7,852	14,999	0	30,368	237	914	29,217
2032	5,673	6,552	12,584	0	24,809	174	765	23,870
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	426,675	226,595	422,159	0	1,075,429	15,787	25,976	1,033,666
Remainder	0	0	0	0	0	0	0	0
Total Future	426,675	226,595	422,159	0	1,075,429	15,787	25,976	1,033,666

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	26,059	0	7,910	12,760	46,729	80,743	80,743	77,035	
2021	23,322	0	8,873	10,676	42,871	60,609	141,352	52,301	
2022	22,774	0	29,152	12,098	64,024	51,351	192,703	39,780	
2023	21,797	0	7,238	14,318	43,353	98,603	291,306	69,459	
2024	16,268	0	4,052	12,617	32,937	90,944	382,250	58,242	
2025	12,650	0	4,206	10,291	27,147	70,727	452,977	41,000	
2026	9,518	0	1,762	8,464	19,744	58,515	511,492	30,711	
2027	8,691	0	2,184	7,011	17,886	45,370	556,862	21,559	
2028	8,280	0	1,495	5,845	15,620	35,961	592,823	15,467	
2029	7,885	0	1,578	4,902	14,365	28,013	620,836	10,907	
2030	7,698	0	1,132	4,131	12,961	22,106	642,942	7,791	
2031	7,385	0	1,488	3,499	12,372	16,845	659,787	5,375	
2032	7,596	0	876	2,901	11,373	12,497	672,284	3,610	
2033	0	0	3,600	0	3,600	-3,600	668,684	-944	
2034	0	0	0	0	0	0	668,684	0	
Sub-Total	179,923	0	75,546	109,513	364,982	668,684		432,293	
Remainder	0	0	0	0	0	0	668,684	0	
Total Future	179,923	0	75,546	109,513	364,982	668,684		432,293	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROVED

TOTAL  
PROVED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	—	329,639
							12.00%	—	308,180
							15.00%	—	280,152
							20.00%	—	242,278
							25.00%	—	212,710

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	13	1,171,533	795,784	18,087	1,116,038	758,088	15,506	53.03	2.83
2021	13	838,679	648,085	14,726	799,027	617,443	12,628	53.03	2.83
2022	16	790,479	668,925	15,206	790,481	668,928	13,684	53.03	2.83
2023	16	696,707	643,178	14,617	696,707	643,175	13,158	53.03	2.83
2024	16	525,217	539,960	12,268	525,215	539,963	11,043	53.03	2.83
2025	15	399,164	455,434	10,354	399,164	455,434	9,316	53.03	2.83
2026	15	305,414	385,567	8,761	305,413	385,568	7,884	53.03	2.83
2027	14	235,051	327,360	7,441	235,051	327,358	6,696	53.03	2.83
2028	14	181,836	278,667	6,334	181,838	278,670	5,701	53.03	2.83
2029	14	141,336	237,758	5,405	141,334	237,756	4,862	53.03	2.83
2030	13	110,321	203,238	4,617	110,322	203,237	4,157	53.03	2.83
2031	13	86,475	174,078	3,956	86,477	174,080	3,561	53.03	2.83
2032	13	68,039	149,377	3,394	66,365	145,711	2,982	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		5,550,251	5,507,411	125,166	5,453,432	5,435,411	111,178	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		5,550,251	5,507,411	125,166	5,453,432	5,435,411	111,178	53.03	2.83
Cumulative		21,399,196	0	185,816					
Ultimate		26,949,447	5,507,411	310,982					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	59,184	24,592	43,883	0	127,659	2,361	2,739	122,559
2021	42,372	20,030	35,742	0	98,144	1,530	2,231	94,383
2022	41,919	21,700	38,721	0	102,340	1,505	2,417	98,418
2023	36,946	20,865	37,231	0	95,042	1,319	2,324	91,399
2024	27,853	17,516	31,257	0	76,626	978	1,950	73,698
2025	21,167	14,775	26,363	0	62,305	715	1,646	59,944
2026	16,196	12,507	22,319	0	51,022	525	1,393	49,104
2027	12,465	10,620	18,950	0	42,035	385	1,183	40,467
2028	9,643	9,040	16,131	0	34,814	289	1,007	33,518
2029	7,495	7,713	13,763	0	28,971	225	859	27,887
2030	5,850	6,593	11,765	0	24,208	176	734	23,298
2031	4,586	5,647	10,077	0	20,310	137	629	19,544
2032	3,520	4,727	8,434	0	16,681	106	526	16,049
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	289,196	176,325	314,636	0	780,157	10,251	19,638	750,268
Remainder	0	0	0	0	0	0	0	0
Total Future	289,196	176,325	314,636	0	780,157	10,251	19,638	750,268

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00%	%
2020	24,639	0	6,625	12,229	43,493	79,066	79,066	75,510	
2021	21,320	0	3,415	9,681	34,416	59,967	139,033	51,787	
2022	18,868	0	17,485	10,297	46,650	51,768	190,801	39,910	
2023	13,477	0	6,095	9,739	29,311	62,088	252,889	43,905	
2024	9,352	0	3,342	8,026	20,720	52,978	305,867	33,921	
2025	7,450	0	3,501	6,657	17,608	42,336	348,203	24,536	
2026	5,870	0	1,484	5,554	12,908	36,196	384,399	18,997	
2027	5,415	0	1,787	4,653	11,855	28,612	413,011	13,593	
2028	5,270	0	1,216	3,915	10,401	23,117	436,128	9,942	
2029	5,060	0	1,277	3,306	9,643	18,244	454,372	7,104	
2030	5,028	0	948	2,798	8,774	14,524	468,896	5,118	
2031	4,775	0	1,185	2,377	8,337	11,207	480,103	3,576	
2032	4,994	0	693	1,974	7,661	8,388	488,491	2,422	
2033	0	0	2,600	0	2,600	-2,600	485,891	-682	
2034	0	0	0	0	0	0	485,891	0	
Sub-Total	131,518	0	51,653	81,206	264,377	485,891		329,639	
Remainder	0	0	0	0	0	0	485,891	0	
Total Future	131,518	0	51,653	81,206	264,377	485,891		329,639	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROVED PRODUCING

PROVED  
PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED	MONTHLY
							10.00%	-	283,810
							12.00%	-	267,103
							15.00%	-	245,193
							20.00%	-	215,370
							25.00%	-	191,842

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	13	1,171,533	795,784	18,087	1,116,038	758,088	15,506	53.03	2.83
2021	13	838,679	648,085	14,726	799,027	617,443	12,628	53.03	2.83
2022	13	619,799	541,049	12,299	619,801	541,052	11,069	53.03	2.83
2023	13	467,266	458,004	10,409	467,266	458,001	9,370	53.03	2.83
2024	13	357,068	390,872	8,881	357,066	390,875	7,993	53.03	2.83
2025	12	275,552	335,271	7,622	275,552	335,271	6,858	53.03	2.83
2026	12	214,250	288,610	6,558	214,249	288,611	5,902	53.03	2.83
2027	11	167,602	249,041	5,660	167,602	249,039	5,094	53.03	2.83
2028	11	131,769	215,332	4,894	131,771	215,335	4,405	53.03	2.83
2029	11	104,048	186,483	4,240	104,046	186,481	3,813	53.03	2.83
2030	10	82,463	161,678	3,673	82,464	161,677	3,308	53.03	2.83
2031	10	65,591	140,354	3,189	65,593	140,356	2,870	53.03	2.83
2032	10	52,336	121,979	2,772	51,048	118,985	2,435	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		4,547,956	4,532,542	103,010	4,451,523	4,461,214	91,251	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		4,547,956	4,532,542	103,010	4,451,523	4,461,214	91,251	53.03	2.83
Cumulative		21,399,196	0	185,816					
Ultimate		25,947,152	4,532,542	288,826					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	59,184	24,592	43,883	0	127,659	2,361	2,739	122,559
2021	42,372	20,030	35,742	0	98,144	1,530	2,231	94,383
2022	32,868	17,552	31,319	0	81,739	1,180	1,955	78,604
2023	24,779	14,858	26,512	0	66,149	885	1,655	63,609
2024	18,935	12,679	22,626	0	54,240	664	1,412	52,164
2025	14,613	10,877	19,408	0	44,898	494	1,211	43,193
2026	11,362	9,362	16,707	0	37,431	368	1,043	36,020
2027	8,887	8,079	14,416	0	31,382	275	900	30,207
2028	6,988	6,985	12,464	0	26,437	210	778	25,449
2029	5,518	6,050	10,795	0	22,363	165	673	21,525
2030	4,373	5,245	9,359	0	18,977	131	585	18,261
2031	3,478	4,553	8,125	0	16,156	105	507	15,544
2032	2,707	3,860	6,887	0	13,454	81	430	12,943
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	236,064	144,722	258,243	0	639,029	8,449	16,119	614,461
Remainder	0	0	0	0	0	0	0	0
Total Future	236,064	144,722	258,243	0	639,029	8,449	16,119	614,461

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted	
						Annual	Cumulative	@ 10.00%	%
2020	24,639	0	6,625	12,229	43,493	79,066	79,066	75,510	
2021	21,320	0	3,415	9,681	34,416	59,967	139,033	51,787	
2022	15,304	0	4,926	8,279	28,509	50,095	189,128	39,139	
2023	9,359	0	4,239	6,862	20,460	43,149	232,277	30,507	
2024	6,608	0	2,364	5,750	14,722	37,442	269,719	23,971	
2025	5,359	0	2,577	4,855	12,791	30,402	300,121	17,615	
2026	4,300	0	1,142	4,121	9,563	26,457	326,578	13,883	
2027	4,038	0	1,333	3,511	8,882	21,325	347,903	10,131	
2028	3,998	0	923	3,003	7,924	17,525	365,428	7,536	
2029	3,901	0	985	2,576	7,462	14,063	379,491	5,474	
2030	3,937	0	787	2,212	6,936	11,325	390,816	3,991	
2031	3,794	0	942	1,906	6,642	8,902	399,718	2,840	
2032	4,025	0	559	1,604	6,188	6,755	406,473	1,951	
2033	0	0	2,000	0	2,000	-2,000	404,473	-525	
2034	0	0	0	0	0	0	404,473	0	
Sub-Total	110,582	0	32,817	66,589	209,988	404,473		283,810	
Remainder	0	0	0	0	0	0	404,473	0	
Total Future	110,582	0	32,817	66,589	209,988	404,473		283,810	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROVED NON-PRODUCING

PROVED  
NON PRODUCING

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 19,591
								12.00% - 17,600
								15.00% - 15,045
								20.00% - 11,696
								25.00% - 9,192

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	2	40,351	30,349	690	40,351	30,349	620	53.03	2.83
2023	2	83,464	65,370	1,486	83,464	65,370	1,338	53.03	2.83
2024	2	65,687	54,970	1,248	65,687	54,970	1,124	53.03	2.83
2025	2	51,694	46,224	1,051	51,694	46,224	946	53.03	2.83
2026	2	40,685	38,870	883	40,685	38,870	794	53.03	2.83
2027	2	32,018	32,686	744	32,018	32,686	669	53.03	2.83
2028	2	25,198	27,486	625	25,198	27,486	562	53.03	2.83
2029	2	19,832	23,112	525	19,832	23,112	473	53.03	2.83
2030	2	15,606	19,435	441	15,606	19,435	397	53.03	2.83
2031	2	12,284	16,343	372	12,284	16,343	335	53.03	2.83
2032	2	9,667	13,743	312	9,429	13,406	275	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		396,486	368,588	8,377	396,248	368,251	7,533	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		396,486	368,588	8,377	396,248	368,251	7,533	53.03	2.83
Cumulative		0	0	0					
Ultimate		396,486	368,588	8,377					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	2,140	985	1,757	0	4,882	77	110	4,695
2023	4,426	2,120	3,784	0	10,330	158	236	9,936
2024	3,483	1,783	3,182	0	8,448	122	198	8,128
2025	2,742	1,500	2,676	0	6,918	93	167	6,558
2026	2,157	1,261	2,250	0	5,668	70	141	5,457
2027	1,698	1,060	1,892	0	4,650	52	118	4,480
2028	1,336	892	1,591	0	3,819	40	99	3,680
2029	1,052	750	1,338	0	3,140	32	84	3,024
2030	828	630	1,125	0	2,583	25	70	2,488
2031	651	530	946	0	2,127	19	59	2,049
2032	500	435	776	0	1,711	15	49	1,647
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	21,013	11,946	21,317	0	54,276	703	1,331	52,242
Remainder	0	0	0	0	0	0	0	0
Total Future	21,013	11,946	21,317	0	54,276	703	1,331	52,242

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0
2022	846	0	1,164	479	2,489	2,206	2,206	1,672	
2023	1,470	0	666	1,022	3,158	6,778	8,984	4,792	
2024	1,036	0	371	848	2,255	5,873	14,857	3,760	
2025	833	0	369	704	1,906	4,752	19,609	2,754	
2026	656	0	144	585	1,385	4,072	23,681	2,137	
2027	604	0	199	486	1,289	3,191	26,872	1,516	
2028	583	0	134	405	1,122	2,558	29,430	1,100	
2029	553	0	140	336	1,029	1,995	31,425	777	
2030	541	0	80	281	902	1,586	33,011	559	
2031	505	0	126	234	865	1,184	34,195	378	
2032	517	0	71	190	778	869	35,064	251	
2033	0	0	400	0	400	-400	34,664	-105	
2034	0	0	0	0	0	0	34,664	0	
Sub-Total	8,144	0	3,864	5,570	17,578	34,664		19,591	
Remainder	0	0	0	0	0	0	34,664	0	
Total Future	8,144	0	3,864	5,570	17,578	34,664		19,591	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROVED UNDEVELOPED

PROVED  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	
								COMPOUNDED
								MONTHLY
								10.00% -
								26,238
								12.00% -
								23,477
								15.00% -
								19,914
								20.00% -
								15,212
								25.00% -
								11,675

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	130,329	97,527	2,217	130,329	97,527	1,995	53.03	2.83
2023	1	145,977	119,804	2,722	145,977	119,804	2,450	53.03	2.83
2024	1	102,462	94,118	2,139	102,462	94,118	1,926	53.03	2.83
2025	1	71,918	73,939	1,681	71,918	73,939	1,512	53.03	2.83
2026	1	50,479	58,087	1,320	50,479	58,087	1,188	53.03	2.83
2027	1	35,431	45,633	1,037	35,431	45,633	933	53.03	2.83
2028	1	24,869	35,849	815	24,869	35,849	734	53.03	2.83
2029	1	17,456	28,163	640	17,456	28,163	576	53.03	2.83
2030	1	12,252	22,125	503	12,252	22,125	452	53.03	2.83
2031	1	8,600	17,381	395	8,600	17,381	356	53.03	2.83
2032	1	6,036	13,655	310	5,888	13,320	272	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		605,809	606,281	13,779	605,661	605,946	12,394	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		605,809	606,281	13,779	605,661	605,946	12,394	53.03	2.83
Cumulative		0	0	0					
Ultimate		605,809	606,281	13,779					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	6,911	3,164	5,646	0	15,721	248	352	15,121
2023	7,742	3,886	6,935	0	18,563	276	433	17,854
2024	5,433	3,053	5,448	0	13,934	191	340	13,403
2025	3,814	2,399	4,280	0	10,493	129	267	10,097
2026	2,677	1,884	3,362	0	7,923	87	210	7,626
2027	1,879	1,481	2,642	0	6,002	58	165	5,779
2028	1,319	1,163	2,075	0	4,557	39	130	4,388
2029	925	913	1,630	0	3,468	28	101	3,339
2030	650	718	1,281	0	2,649	20	80	2,549
2031	456	564	1,006	0	2,026	13	63	1,950
2032	312	432	771	0	1,515	10	48	1,457
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	32,118	19,657	35,076	0	86,851	1,099	2,189	83,563
Remainder	0	0	0	0	0	0	0	0
Total Future	32,118	19,657	35,076	0	86,851	1,099	2,189	83,563

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	2,719	0	11,396	1,540	15,655	-534	-534	-901
2023	2,647	0	1,189	1,855	5,691	12,163	11,629	8,605
2024	1,708	0	607	1,426	3,741	9,662	21,291	6,192
2025	1,259	0	555	1,099	2,913	7,184	28,475	4,166
2026	912	0	198	848	1,958	5,668	34,143	2,977
2027	774	0	255	656	1,685	4,094	38,237	1,947
2028	689	0	158	507	1,354	3,034	41,271	1,305
2029	606	0	153	394	1,153	2,186	43,457	853
2030	550	0	81	305	936	1,613	45,070	568
2031	475	0	118	237	830	1,120	46,190	358
2032	453	0	62	180	695	762	46,952	220
2033	0	0	200	0	200	-200	46,752	-52
2034	0	0	0	0	0	0	46,752	0
Sub-Total	12,792	0	14,972	9,047	36,811	46,752		26,238
Remainder	0	0	0	0	0	0	46,752	0
Total Future	12,792	0	14,972	9,047	36,811	46,752		26,238





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHEAST AREA  
TOTAL PROBABLE RESERVES

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	
								COMPOUNDED
								MONTHLY
								10.00% -
								102,654
								12.00% -
								92,071
								15.00% -
								78,497
								20.00% -
								60,736
								25.00% -
								47,496

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	38,143	24,642	986	36,465	23,558	848	53.03	2.83
2021	1	68,168	46,662	1,866	65,119	44,574	1,605	53.03	2.83
2022	4	138,696	103,727	3,106	130,993	97,967	2,640	53.03	2.83
2023	5	556,885	235,092	6,041	556,886	235,092	5,436	53.03	2.83
2024	5	549,188	239,132	6,081	549,186	239,133	5,475	53.03	2.83
2025	5	383,223	197,208	5,084	383,225	197,207	4,574	53.03	2.83
2026	5	269,900	163,292	4,271	269,899	163,293	3,844	53.03	2.83
2027	5	192,033	135,785	3,604	192,033	135,784	3,246	53.03	2.83
2028	5	138,147	113,412	3,062	138,147	113,412	2,754	53.03	2.83
2029	5	100,557	95,161	2,612	100,556	95,160	2,349	53.03	2.83
2030	5	74,091	80,225	2,240	74,093	80,226	2,017	53.03	2.83
2031	5	55,278	67,964	1,933	55,277	67,963	1,740	53.03	2.83
2032	5	41,758	57,858	1,676	40,600	56,255	1,467	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		2,606,067	1,560,160	42,562	2,592,479	1,549,624	37,995	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		2,606,067	1,560,160	42,562	2,592,479	1,549,624	37,995	53.03	2.83
Cumulative		0	0	0					
Ultimate		2,606,067	1,560,160	42,562					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,934	764	2,400	0	5,098	58	127	4,913
2021	3,453	1,446	4,541	0	9,440	104	239	9,097
2022	6,947	3,178	7,473	0	17,598	217	426	16,955
2023	29,531	7,627	15,383	0	52,541	1,063	920	50,558
2024	29,124	7,757	15,491	0	52,372	1,255	930	50,187
2025	20,322	6,397	12,948	0	39,667	954	786	37,927
2026	14,313	5,298	10,876	0	30,487	672	661	29,154
2027	10,183	4,405	9,184	0	23,772	437	544	22,791
2028	7,326	3,679	7,796	0	18,801	278	459	18,064
2029	5,333	3,087	6,652	0	15,072	192	389	14,491
2030	3,929	2,602	5,707	0	12,238	138	333	11,767
2031	2,931	2,205	4,923	0	10,059	100	285	9,674
2032	2,153	1,825	4,149	0	8,127	69	239	7,819
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	137,479	50,270	107,523	0	295,272	5,537	6,338	283,397
Remainder	0	0	0	0	0	0	0	0
Total Future	137,479	50,270	107,523	0	295,272	5,537	6,338	283,397

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	1,420	0	1,285	531	3,236	1,677	1,677	1,525
2021	2,001	0	5,457	995	8,453	644	2,321	514
2022	3,907	0	11,668	1,801	17,376	-421	1,900	-130
2023	8,320	0	1,143	4,579	14,042	36,516	38,416	25,554
2024	6,917	0	710	4,591	12,218	37,969	76,385	24,321
2025	5,198	0	705	3,634	9,537	28,390	104,775	16,463
2026	3,649	0	279	2,910	6,838	22,316	127,091	11,715
2027	3,276	0	396	2,358	6,030	16,761	143,852	7,966
2028	3,010	0	279	1,930	5,219	12,845	156,697	5,525
2029	2,826	0	302	1,596	4,724	9,767	166,464	3,803
2030	2,669	0	183	1,333	4,185	7,582	174,046	2,673
2031	2,610	0	302	1,122	4,034	5,640	179,686	1,800
2032	2,602	0	184	926	3,712	4,107	183,793	1,187
2033	0	0	1,000	0	1,000	-1,000	182,793	-262
2034	0	0	0	0	0	0	182,793	0
Sub-Total	48,405	0	23,893	28,306	100,604	182,793		102,654
Remainder	0	0	0	0	0	0	182,793	0
Total Future	48,405	0	23,893	28,306	100,604	182,793		102,654



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

BISKI & AFONINSKI SUMMARY  
NORTHWEST AREA  
TOTAL PROBABLE RESERVES

TOTAL  
PROBABLE

INITIAL FINAL REMARKS	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED MONTHLY
								10.00% - 78,204
								12.00% - 67,206
								15.00% - 53,588
								20.00% - 36,792
								25.00% - 25,248

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	3	267,654	140,043	3,184	267,654	140,043	2,865	53.03	2.83
2025	3	724,253	397,052	9,022	724,253	397,052	8,122	53.03	2.83
2026	3	520,086	309,779	7,042	520,086	309,779	6,335	53.03	2.83
2027	3	373,475	241,692	5,493	373,475	241,692	4,944	53.03	2.83
2028	3	268,191	188,566	4,286	268,191	188,566	3,857	53.03	2.83
2029	3	192,589	147,121	3,343	192,589	147,121	3,009	53.03	2.83
2030	3	138,297	114,782	2,608	138,297	114,782	2,348	53.03	2.83
2031	3	99,311	89,554	2,035	99,311	89,554	1,833	53.03	2.83
2032	3	71,316	69,870	1,587	69,341	67,935	1,390	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		2,655,172	1,698,459	38,600	2,653,197	1,696,524	34,703	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		2,655,172	1,698,459	38,600	2,653,197	1,696,524	34,703	53.03	2.83
Cumulative		0	0	0					
Ultimate		2,655,172	1,698,459	38,600					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	14,194	4,543	8,107	0	26,844	612	506	25,726
2025	38,407	12,880	22,983	0	74,270	1,801	1,456	71,013
2026	27,580	10,050	17,933	0	55,563	1,296	1,145	53,122
2027	19,805	7,840	13,990	0	41,635	850	873	39,912
2028	14,223	6,117	10,916	0	31,256	540	681	30,035
2029	10,213	4,773	8,516	0	23,502	368	532	22,602
2030	7,333	3,723	6,644	0	17,700	257	414	17,029
2031	5,267	2,905	5,184	0	13,356	179	324	12,853
2032	3,677	2,204	3,933	0	9,814	118	245	9,451
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	140,699	55,035	98,206	0	293,940	6,021	6,176	281,743
Remainder	0	0	0	0	0	0	0	0
Total Future	140,699	55,035	98,206	0	293,940	6,021	6,176	281,743

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	1,187	0	1,187	-1,187	-1,187	-1,124
2021	0	0	607	0	607	-607	-1,794	-521
2022	0	0	1,170	0	1,170	-1,170	-2,964	-909
2023	0	0	1,056	0	1,056	-1,056	-4,020	-742
2024	3,344	0	32,556	2,415	38,315	-12,589	-16,609	-8,607
2025	9,742	0	651	6,760	17,153	53,860	37,251	31,235
2026	6,665	0	257	5,160	12,082	41,040	78,291	21,549
2027	5,761	0	366	3,943	10,070	29,842	108,133	14,187
2028	5,035	0	257	3,018	8,310	21,725	129,858	9,348
2029	4,441	0	279	2,313	7,033	15,569	145,427	6,066
2030	3,897	0	170	1,773	5,840	11,189	156,616	3,946
2031	3,503	0	279	1,362	5,144	7,709	164,325	2,462
2032	3,177	0	169	1,018	4,364	5,087	169,412	1,471
2033	0	0	600	0	600	-600	168,812	-157
2034	0	0	0	0	0	0	168,812	0
Sub-Total	45,565	0	39,604	27,762	112,931	168,812		78,204
Remainder	0	0	0	0	0	0	168,812	0
Total Future	45,565	0	39,604	27,762	112,931	168,812		78,204



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_02 (WEST AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	22,756
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	19,219
REMARKS								15.00%	14,917
								20.00%	9,763
								25.00%	6,358

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	121,872	63,747	1,449	121,872	63,747	1,304	53.03	2.83
2026	1	232,213	128,600	2,923	232,213	128,600	2,630	53.03	2.83
2027	1	166,752	100,333	2,280	166,752	100,333	2,053	53.03	2.83
2028	1	119,744	78,280	1,779	119,744	78,280	1,601	53.03	2.83
2029	1	85,989	61,075	1,388	85,989	61,075	1,249	53.03	2.83
2030	1	61,748	47,650	1,083	61,748	47,650	975	53.03	2.83
2031	1	44,341	37,176	845	44,341	37,176	760	53.03	2.83
2032	1	31,842	29,005	659	30,960	28,202	577	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		864,501	545,866	12,406	863,619	545,063	11,149	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		864,501	545,866	12,406	863,619	545,063	11,149	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		864,501	545,866	12,406					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	6,463	2,068	3,690	0	12,221	303	234	11,684
2026	12,314	4,172	7,444	0	23,930	579	475	22,876
2027	8,843	3,255	5,808	0	17,906	379	362	17,165
2028	6,350	2,539	4,532	0	13,421	242	283	12,896
2029	4,560	1,981	3,535	0	10,076	164	221	9,691
2030	3,275	1,546	2,758	0	7,579	115	172	7,292
2031	2,351	1,206	2,152	0	5,709	79	134	5,496
2032	1,642	915	1,633	0	4,190	53	102	4,035
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,798	17,682	31,552	0	95,032	1,914	1,983	91,135
Remainder	0	0	0	0	0	0	0	0
Total Future	45,798	17,682	31,552	0	95,032	1,914	1,983	91,135

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	374	0	374	-374	-374	-355
2021	0	0	192	0	192	-192	-566	-164
2022	0	0	369	0	369	-369	-935	-287
2023	0	0	333	0	333	-333	-1,268	-234
2024	0	0	207	0	207	-207	-1,475	-132
2025	1,516	0	11,206	1,100	13,822	-2,138	-3,613	-1,516
2026	2,876	0	81	2,183	5,140	17,736	14,123	9,313
2027	2,482	0	116	1,667	4,265	12,900	27,023	6,132
2028	2,166	0	81	1,274	3,521	9,375	36,398	4,035
2029	1,908	0	88	975	2,971	6,720	43,118	2,618
2030	1,671	0	53	747	2,471	4,821	47,939	1,700
2031	1,501	0	88	574	2,163	3,333	51,272	1,064
2032	1,359	0	54	428	1,841	2,194	53,466	635
2033	0	0	200	0	200	-200	53,266	-53
2034	0	0	0	0	0	0	53,266	0
Sub-Total	15,479	0	13,442	8,948	37,869	53,266		22,756
Remainder	0	0	0	0	0	0	53,266	0
Total Future	15,479	0	13,442	8,948	37,869	53,266		22,756



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_02\_1 (WEST AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	21,283
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	17,833
REMARKS								15.00%	13,672
								20.00%	8,755
								25.00%	5,563

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026	1	266,568	142,611	3,241	266,568	142,611	2,917	53.03	2.83
2027	1	191,423	111,266	2,529	191,423	111,266	2,276	53.03	2.83
2028	1	137,461	86,809	1,973	137,461	86,809	1,776	53.03	2.83
2029	1	98,710	67,728	1,539	98,710	67,728	1,385	53.03	2.83
2030	1	70,884	52,842	1,201	70,884	52,842	1,081	53.03	2.83
2031	1	50,902	41,227	937	50,902	41,227	843	53.03	2.83
2032	1	36,553	32,166	731	35,540	31,274	640	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		852,501	534,649	12,151	851,488	533,757	10,918	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		852,501	534,649	12,151	851,488	533,757	10,918	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		852,501	534,649	12,151	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	14,136	4,626	8,255	0	27,017	664	527	25,826
2027	10,151	3,610	6,441	0	20,202	436	402	19,364
2028	7,290	2,816	5,025	0	15,131	277	314	14,540
2029	5,234	2,197	3,921	0	11,352	188	244	10,920
2030	3,759	1,714	3,058	0	8,531	132	191	8,208
2031	2,700	1,338	2,387	0	6,425	92	149	6,184
2032	1,884	1,014	1,810	0	4,708	60	113	4,535
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,154	17,315	30,897	0	93,366	1,849	1,940	89,577
Remainder	0	0	0	0	0	0	0	0
Total Future	45,154	17,315	30,897	0	93,366	1,849	1,940	89,577

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	363	0	363	-363	-363	-344
2021	0	0	186	0	186	-186	-549	-160
2022	0	0	358	0	358	-358	-907	-278
2023	0	0	324	0	324	-324	-1,231	-227
2024	0	0	200	0	200	-200	-1,431	-128
2025	0	0	11,200	0	11,200	-11,200	-12,631	-6,345
2026	3,249	0	78	2,444	5,771	20,055	7,424	10,530
2027	2,803	0	113	1,865	4,781	14,583	22,007	6,934
2028	2,444	0	78	1,425	3,947	10,593	32,600	4,558
2029	2,151	0	86	1,090	3,327	7,593	40,193	2,958
2030	1,884	0	52	835	2,771	5,437	45,630	1,918
2031	1,689	0	85	640	2,414	3,770	49,400	1,203
2032	1,529	0	52	478	2,059	2,476	51,876	716
2033	0	0	200	0	200	-200	51,676	-52
2034	0	0	0	0	0	0	51,676	0
Sub-Total	15,749	0	13,375	8,777	37,901	51,676		21,283
Remainder	0	0	0	0	0	0	51,676	0
Total Future	15,749	0	13,375	8,777	37,901	51,676		21,283



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_03\_1 (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	30,263
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	26,622
REMARKS								15.00%	22,002
								20.00%	16,073
								25.00%	11,776

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	166,104	87,457	1,988	166,104	87,457	1,789	53.03	2.83
2024	1	219,743	123,388	2,804	219,743	123,388	2,524	53.03	2.83
2025	1	157,798	96,267	2,188	157,798	96,267	1,969	53.03	2.83
2026	1	113,315	75,108	1,707	113,315	75,108	1,536	53.03	2.83
2027	1	81,371	58,600	1,332	81,371	58,600	1,199	53.03	2.83
2028	1	58,433	45,719	1,039	58,433	45,719	935	53.03	2.83
2029	1	41,961	35,670	810	41,961	35,670	730	53.03	2.83
2030	1	30,131	27,830	633	30,131	27,830	569	53.03	2.83
2031	1	21,638	21,712	493	21,638	21,712	444	53.03	2.83
2032	1	15,538	16,941	385	15,108	16,471	337	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		906,032	588,692	13,379	905,602	588,222	12,032	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		906,032	588,692	13,379	905,602	588,222	12,032	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		906,032	588,692	13,379					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	8,808	2,837	5,063	0	16,708	317	316	16,075
2024	11,653	4,003	7,142	0	22,798	502	446	21,850
2025	8,369	3,123	5,573	0	17,065	393	353	16,319
2026	6,009	2,436	4,347	0	12,792	282	277	12,233
2027	4,315	1,901	3,392	0	9,608	185	212	9,211
2028	3,098	1,483	2,647	0	7,228	118	165	6,945
2029	2,226	1,157	2,065	0	5,448	80	129	5,239
2030	1,597	903	1,611	0	4,111	56	101	3,954
2031	1,148	705	1,257	0	3,110	39	78	2,993
2032	801	534	953	0	2,288	26	60	2,202
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	48,024	19,082	34,050	0	101,156	1,998	2,137	97,021
Remainder	0	0	0	0	0	0	0	0
Total Future	48,024	19,082	34,050	0	101,156	1,998	2,137	97,021

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	411	0	411	-411	-411	-389
2021	0	0	210	0	210	-210	-621	-181
2022	0	0	406	0	406	-406	-1,027	-314
2023	2,579	0	11,365	1,506	15,450	625	-402	-23
2024	2,999	0	227	2,087	5,313	16,537	16,135	10,593
2025	2,232	0	226	1,594	4,052	12,267	28,402	7,113
2026	1,531	0	89	1,218	2,838	9,395	37,797	4,934
2027	1,326	0	127	933	2,386	6,825	44,622	3,245
2028	1,161	0	89	715	1,965	4,980	49,602	2,143
2029	1,026	0	96	548	1,670	3,569	53,171	1,389
2030	903	0	59	422	1,384	2,570	55,741	908
2031	813	0	97	324	1,234	1,759	57,500	561
2032	739	0	58	242	1,039	1,163	58,663	336
2033	0	0	200	0	200	-200	58,463	-52
2034	0	0	0	0	0	0	58,463	0
Sub-Total	15,309	0	13,660	9,589	38,558	58,463		30,263
Remainder	0	0	0	0	0	0	58,463	0
Total Future	15,309	0	13,660	9,589	38,558	58,463		30,263



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_04\_1 (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	22,463
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	18,941
REMARKS								15.00%	14,665
								20.00%	9,557
								25.00%	6,193

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	98,824	51,520	1,171	98,824	51,520	1,054	53.03	2.83
2026	1	238,710	131,287	2,984	238,710	131,287	2,685	53.03	2.83
2027	1	171,418	102,430	2,328	171,418	102,430	2,095	53.03	2.83
2028	1	123,094	79,916	1,816	123,094	79,916	1,635	53.03	2.83
2029	1	88,395	62,351	1,417	88,395	62,351	1,275	53.03	2.83
2030	1	63,476	48,646	1,106	63,476	48,646	995	53.03	2.83
2031	1	45,582	37,953	862	45,582	37,953	777	53.03	2.83
2032	1	32,733	29,612	673	31,826	28,791	589	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		862,232	543,715	12,357	861,325	542,894	11,105	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		862,232	543,715	12,357	861,325	542,894	11,105	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		862,232	543,715	12,357	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	5,241	1,671	2,982	0	9,894	246	189	9,459
2026	12,658	4,259	7,600	0	24,517	595	485	23,437
2027	9,091	3,323	5,929	0	18,343	390	370	17,583
2028	6,527	2,593	4,626	0	13,746	248	289	13,209
2029	4,688	2,022	3,610	0	10,320	169	225	9,926
2030	3,366	1,578	2,816	0	7,760	118	176	7,466
2031	2,417	1,232	2,197	0	5,846	82	137	5,627
2032	1,688	933	1,666	0	4,287	54	104	4,129
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,676	17,611	31,426	0	94,713	1,902	1,975	90,836
Remainder	0	0	0	0	0	0	0	0
Total Future	45,676	17,611	31,426	0	94,713	1,902	1,975	90,836

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	372	0	372	-372	-372	-353
2021	0	0	191	0	191	-191	-563	-163
2022	0	0	367	0	367	-367	-930	-285
2023	0	0	331	0	331	-331	-1,261	-233
2024	0	0	206	0	206	-206	-1,467	-131
2025	1,225	0	11,204	889	13,318	-3,859	-5,326	-2,448
2026	2,947	0	81	2,234	5,262	18,175	12,849	9,544
2027	2,542	0	115	1,704	4,361	13,222	26,071	6,285
2028	2,219	0	81	1,303	3,603	9,606	35,677	4,134
2029	1,955	0	87	997	3,039	6,887	42,564	2,683
2030	1,711	0	53	765	2,529	4,937	47,501	1,741
2031	1,537	0	88	586	2,211	3,416	50,917	1,091
2032	1,391	0	53	437	1,881	2,248	53,165	650
2033	0	0	200	0	200	-200	52,965	-52
2034	0	0	0	0	0	0	52,965	0
Sub-Total	15,527	0	13,429	8,915	37,871	52,965		22,463
Remainder	0	0	0	0	0	0	52,965	0
Total Future	15,527	0	13,429	8,915	37,871	52,965		22,463



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_05 (WEST AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	21,231
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	17,777
REMARKS								15.00%	13,613
								20.00%	8,695
								25.00%	5,507

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026	1	266,568	142,611	3,241	266,568	142,611	2,917	53.03	2.83
2027	1	191,423	111,266	2,529	191,423	111,266	2,276	53.03	2.83
2028	1	137,461	86,809	1,973	137,461	86,809	1,776	53.03	2.83
2029	1	98,710	67,728	1,539	98,710	67,728	1,385	53.03	2.83
2030	1	70,884	52,842	1,201	70,884	52,842	1,081	53.03	2.83
2031	1	50,902	41,227	937	50,902	41,227	843	53.03	2.83
2032	1	36,553	32,166	731	35,540	31,274	640	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		852,501	534,649	12,151	851,488	533,757	10,918	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		852,501	534,649	12,151	851,488	533,757	10,918	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		852,501	534,649	12,151					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	14,136	4,626	8,255	0	27,017	664	527	25,826
2027	10,151	3,610	6,441	0	20,202	436	402	19,364
2028	7,290	2,816	5,025	0	15,131	277	314	14,540
2029	5,234	2,197	3,921	0	11,352	188	244	10,920
2030	3,759	1,714	3,058	0	8,531	132	191	8,208
2031	2,700	1,338	2,387	0	6,425	92	149	6,184
2032	1,884	1,014	1,810	0	4,708	60	113	4,535
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	45,154	17,315	30,897	0	93,366	1,849	1,940	89,577
Remainder	0	0	0	0	0	0	0	0
Total Future	45,154	17,315	30,897	0	93,366	1,849	1,940	89,577

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	363	0	363	-363	-363	-344
2021	0	0	186	0	186	-186	-549	-160
2022	0	0	358	0	358	-358	-907	-278
2023	0	0	324	0	324	-324	-1,231	-227
2024	0	0	200	0	200	-200	-1,431	-128
2025	0	0	11,200	0	11,200	-11,200	-12,631	-6,397
2026	3,249	0	78	2,444	5,771	20,055	7,424	10,531
2027	2,803	0	113	1,865	4,781	14,583	22,007	6,933
2028	2,444	0	78	1,425	3,947	10,593	32,600	4,558
2029	2,151	0	86	1,090	3,327	7,593	40,193	2,958
2030	1,884	0	52	835	2,771	5,437	45,630	1,918
2031	1,689	0	85	640	2,414	3,770	49,400	1,203
2032	1,529	0	52	478	2,059	2,476	51,876	716
2033	0	0	200	0	200	-200	51,676	-52
2034	0	0	0	0	0	0	51,676	0
Sub-Total	15,749	0	13,375	8,777	37,901	51,676		21,231
Remainder	0	0	0	0	0	0	51,676	0
Total Future	15,749	0	13,375	8,777	37,901	51,676		21,231



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_06 (WEST AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	19,795
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	16,318
REMARKS								15.00%	12,158
								20.00%	7,315
								25.00%	4,249

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026	1	228,038	121,231	2,755	228,038	121,231	2,480	53.03	2.83
2027	1	202,284	115,965	2,636	202,284	115,965	2,372	53.03	2.83
2028	1	145,261	90,476	2,056	145,261	90,476	1,850	53.03	2.83
2029	1	104,311	70,589	1,604	104,311	70,589	1,444	53.03	2.83
2030	1	74,906	55,073	1,252	74,906	55,073	1,127	53.03	2.83
2031	1	53,790	42,969	977	53,790	42,969	879	53.03	2.83
2032	1	38,627	33,524	762	37,557	32,595	666	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		847,217	529,827	12,042	846,147	528,898	10,818	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		847,217	529,827	12,042	846,147	528,898	10,818	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		847,217	529,827	12,042	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	12,093	3,933	7,018	0	23,044	568	448	22,028
2027	10,727	3,762	6,712	0	21,201	461	419	20,321
2028	7,703	2,935	5,238	0	15,876	292	327	15,257
2029	5,532	2,290	4,086	0	11,908	199	255	11,454
2030	3,972	1,786	3,188	0	8,946	140	199	8,607
2031	2,853	1,394	2,487	0	6,734	97	155	6,482
2032	1,991	1,057	1,887	0	4,935	63	118	4,754
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	44,871	17,157	30,616	0	92,644	1,820	1,921	88,903
Remainder	0	0	0	0	0	0	0	0
Total Future	44,871	17,157	30,616	0	92,644	1,820	1,921	88,903

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	358	0	358	-358	-358	-339
2021	0	0	183	0	183	-183	-541	-157
2022	0	0	353	0	353	-353	-894	-275
2023	0	0	319	0	319	-319	-1,213	-223
2024	0	0	11,198	0	11,198	-11,198	-12,411	-7,124
2025	0	0	196	0	196	-196	-12,607	-113
2026	2,809	0	78	2,081	4,968	17,060	4,453	8,875
2027	2,942	0	110	1,951	5,003	15,318	19,771	7,282
2028	2,565	0	78	1,490	4,133	11,124	30,895	4,787
2029	2,258	0	84	1,140	3,482	7,972	38,867	3,106
2030	1,975	0	51	873	2,899	5,708	44,575	2,013
2031	1,772	0	84	669	2,525	3,957	48,532	1,263
2032	1,604	0	51	499	2,154	2,600	51,132	752
2033	0	0	200	0	200	-200	50,932	-52
2034	0	0	0	0	0	0	50,932	0
Sub-Total	15,925	0	13,343	8,703	37,971	50,932		19,795
Remainder	0	0	0	0	0	0	50,932	0
Total Future	15,925	0	13,343	8,703	37,971	50,932		19,795





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST BS\_AF\_07 (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	23,520
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	19,942
REMARKS								15.00%	15,571
								20.00%	10,296
								25.00%	6,777

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025	1	187,321	98,949	2,249	187,321	98,949	2,024	53.03	2.83
2026	1	213,762	120,862	2,747	213,762	120,862	2,472	53.03	2.83
2027	1	153,503	94,297	2,143	153,503	94,297	1,929	53.03	2.83
2028	1	110,231	73,570	1,672	110,231	73,570	1,505	53.03	2.83
2029	1	79,156	57,400	1,304	79,156	57,400	1,174	53.03	2.83
2030	1	56,842	44,783	1,018	56,842	44,783	916	53.03	2.83
2031	1	40,819	34,940	794	40,819	34,940	715	53.03	2.83
2032	1	29,312	27,260	620	28,499	26,504	542	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		870,946	552,061	12,547	870,133	551,305	11,277	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		870,946	552,061	12,547	870,133	551,305	11,277	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		870,946	552,061	12,547					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	9,934	3,210	5,728	0	18,872	466	363	18,043
2026	11,335	3,921	6,996	0	22,252	533	446	21,273
2027	8,141	3,059	5,459	0	16,659	349	341	15,969
2028	5,845	2,386	4,258	0	12,489	222	266	12,001
2029	4,198	1,862	3,323	0	9,383	151	207	9,025
2030	3,014	1,453	2,592	0	7,059	106	162	6,791
2031	2,165	1,134	2,023	0	5,322	73	126	5,123
2032	1,511	859	1,534	0	3,904	49	96	3,759
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	46,143	17,884	31,913	0	95,940	1,949	2,007	91,984
Remainder	0	0	0	0	0	0	0	0
Total Future	46,143	17,884	31,913	0	95,940	1,949	2,007	91,984

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	380	0	380	-380	-380	-360	
2021	0	0	194	0	194	-194	-574	-166	
2022	0	0	374	0	374	-374	-948	-291	
2023	0	0	338	0	338	-338	-1,286	-238	
2024	0	0	11,210	0	11,210	-11,210	-12,496	-6,847	
2025	2,465	0	208	1,702	4,375	13,668	1,172	7,781	
2026	2,673	0	83	2,041	4,797	16,476	17,648	8,653	
2027	2,307	0	117	1,558	3,982	11,987	29,635	5,697	
2028	2,015	0	82	1,192	3,289	8,712	38,347	3,750	
2029	1,775	0	89	912	2,776	6,249	44,596	2,434	
2030	1,557	0	55	699	2,311	4,480	49,076	1,580	
2031	1,397	0	89	537	2,023	3,100	52,176	990	
2032	1,266	0	54	401	1,721	2,038	54,214	589	
2033	0	0	200	0	200	-200	54,014	-52	
2034	0	0	0	0	0	0	54,014	0	
Sub-Total	15,455	0	13,473	9,042	37,970	54,014		23,520	
Remainder	0	0	0	0	0	0	54,014	0	
Total Future	15,455	0	13,473	9,042	37,970	54,014		23,520	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 228 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	2,138
FINAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	12.00%	2,119
REMARKS								15.00%	2,090
								20.00%	2,040
								25.00%	1,990

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	26,644	16,700	380	25,382	15,909	325	53.03	2.83
2021	1	6,661	5,010	113	6,346	4,773	98	53.03	2.83
2022	1	1,665	1,503	35	1,665	1,503	31	53.03	2.83
2023	1	416	451	10	416	451	9	53.03	2.83
2024	1	104	135	3	104	135	3	53.03	2.83
2025	1	26	14	0	26	14	0	53.03	2.83
2026	1	0	0	0	0	0	0	53.03	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		35,516	23,813	541	33,939	22,785	466	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		35,516	23,813	541	33,939	22,785	466	53.03	2.83
Cumulative		101,451	0	1,247	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		136,967	23,813	1,788					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,346	516	921	0	2,783	54	57	2,672
2021	337	155	276	0	768	12	18	738
2022	88	49	87	0	224	3	5	216
2023	22	14	26	0	62	1	2	59
2024	5	5	8	0	18	0	0	18
2025	2	0	1	0	3	0	0	3
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	1,800	739	1,319	0	3,858	70	82	3,706
Remainder	0	0	0	0	0	0	0	0
Total Future	1,800	739	1,319	0	3,858	70	82	3,706

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	531	0	130	262	923	1,749	1,749	1,684
2021	167	0	24	75	266	472	2,221	411
2022	43	0	12	23	78	138	2,359	109
2023	10	0	4	6	20	39	2,398	29
2024	2	0	1	2	5	13	2,411	8
2025	0	0	0	1	1	2	2,413	1
2026	0	0	200	0	200	-200	2,213	-104
2027	0	0	0	0	0	0	2,213	0
2028	0	0	0	0	0	0	2,213	0
2029	0	0	0	0	0	0	2,213	0
2030	0	0	0	0	0	0	2,213	0
2031	0	0	0	0	0	0	2,213	0
2032	0	0	0	0	0	0	2,213	0
2033	0	0	0	0	0	0	2,213	0
2034	0	0	0	0	0	0	2,213	0
Sub-Total	753	0	371	369	1,493	2,213		2,138
Remainder	0	0	0	0	0	0	2,213	0
Total Future	753	0	371	369	1,493	2,213		2,138



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
WEST WELL 234 (TECH) (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.955263	0.955263	0.955263	53.03	32.44	2.83	10.00%	30,269
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	27,450
REMARKS								15.00%	23,757
								20.00%	18,766
								25.00%	14,896

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	74,355	39,036	887	71,029	37,290	763	53.03	2.83
2022	1	230,947	134,030	3,046	218,120	126,586	2,589	53.03	2.83
2023	1	152,424	104,571	2,377	152,425	104,571	2,139	53.03	2.83
2024	1	100,601	81,586	1,854	100,600	81,586	1,669	53.03	2.83
2025	1	66,396	63,653	1,447	66,396	63,653	1,302	53.03	2.83
2026	1	43,821	49,662	1,128	43,822	49,662	1,016	53.03	2.83
2027	1	28,922	38,746	881	28,922	38,746	792	53.03	2.83
2028	1	19,089	30,230	687	19,089	30,230	618	53.03	2.83
2029	1	12,599	23,586	536	12,598	23,586	483	53.03	2.83
2030	1	8,315	18,401	418	8,315	18,401	376	53.03	2.83
2031	1	5,488	14,357	327	5,488	14,357	294	53.03	2.83
2032	1	3,622	11,201	254	3,522	10,891	223	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		746,579	609,059	13,842	730,326	599,559	12,264	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		746,579	609,059	13,842	730,326	599,559	12,264	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		746,579	609,059	13,842	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	3,767	1,210	2,159	0	7,136	113	135	6,888
2022	11,567	4,106	7,327	0	23,000	362	457	22,181
2023	8,083	3,392	6,053	0	17,528	291	378	16,859
2024	5,334	2,647	4,723	0	12,704	230	295	12,179
2025	3,521	2,065	3,685	0	9,271	165	233	8,873
2026	2,324	1,611	2,875	0	6,810	109	184	6,517
2027	1,534	1,257	2,242	0	5,033	66	140	4,827
2028	1,012	981	1,750	0	3,743	39	109	3,595
2029	668	765	1,366	0	2,799	24	85	2,690
2030	441	597	1,065	0	2,103	15	67	2,021
2031	291	465	831	0	1,587	10	51	1,526
2032	187	354	630	0	1,171	6	40	1,125
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	38,729	19,450	34,706	0	92,885	1,430	2,174	89,281
Remainder	0	0	0	0	0	0	0	0
Total Future	38,729	19,450	34,706	0	92,885	1,430	2,174	89,281

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	355	0	355	-355	-355	-336
2021	1,497	0	11,181	643	13,321	-6,433	-6,788	-5,650
2022	5,216	0	350	2,122	7,688	14,493	7,705	11,333
2023	2,837	0	315	1,683	4,835	12,024	19,729	8,509
2024	1,656	0	196	1,267	3,119	9,060	28,789	5,806
2025	1,200	0	195	957	2,352	6,521	35,310	3,782
2026	804	0	77	727	1,608	4,909	40,219	2,578
2027	685	0	109	553	1,347	3,480	43,699	1,655
2028	591	0	77	423	1,091	2,504	46,203	1,078
2029	517	0	83	325	925	1,765	47,968	687
2030	453	0	51	249	753	1,268	49,236	448
2031	407	0	83	192	682	844	50,080	269
2032	369	0	51	144	564	561	50,641	163
2033	0	0	200	0	200	-200	50,441	-53
2034	0	0	0	0	0	0	50,441	0
Sub-Total	16,232	0	13,323	9,285	38,840	50,441		30,269
Remainder	0	0	0	0	0	0	50,441	0
Total Future	16,232	0	13,323	9,285	38,840	50,441		30,269



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WEST WELL BS\_AF\_10 (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	27,655
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	23,974
REMARKS								15.00%	19,373
								20.00%	13,606
								25.00%	9,560

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	228,038	121,231	2,755	228,038	121,231	2,480	53.03	2.83
2025	1	202,284	115,965	2,636	202,284	115,965	2,372	53.03	2.83
2026	1	145,261	90,476	2,056	145,261	90,476	1,850	53.03	2.83
2027	1	104,311	70,589	1,604	104,311	70,589	1,444	53.03	2.83
2028	1	74,906	55,073	1,252	74,906	55,073	1,127	53.03	2.83
2029	1	53,790	42,969	977	53,790	42,969	879	53.03	2.83
2030	1	38,627	33,524	762	38,627	33,524	685	53.03	2.83
2031	1	27,738	26,155	594	27,738	26,155	535	53.03	2.83
2032	1	19,918	20,406	464	19,367	19,841	406	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		894,873	576,388	13,100	894,322	575,823	11,778	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		894,873	576,388	13,100	894,322	575,823	11,778	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		894,873	576,388	13,100					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	12,093	3,933	7,018	0	23,044	521	438	22,085
2025	10,727	3,762	6,712	0	21,201	503	425	20,273
2026	7,703	2,935	5,238	0	15,876	362	335	15,179
2027	5,532	2,290	4,086	0	11,908	238	255	11,415
2028	3,972	1,786	3,188	0	8,946	151	199	8,596
2029	2,853	1,394	2,487	0	6,734	102	155	6,477
2030	2,048	1,088	1,941	0	5,077	72	121	4,884
2031	1,471	848	1,514	0	3,833	50	94	3,689
2032	1,027	644	1,148	0	2,819	33	72	2,714
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	47,426	18,680	33,332	0	99,438	2,032	2,094	95,312
Remainder	0	0	0	0	0	0	0	0
Total Future	47,426	18,680	33,332	0	99,438	2,032	2,094	95,312

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	402	0	402	-402	-402	-381
2021	0	0	206	0	206	-206	-608	-177
2022	0	0	397	0	397	-397	-1,005	-308
2023	0	0	11,358	0	11,358	-11,358	-12,363	-7,792
2024	3,005	0	222	2,081	5,308	16,777	4,414	10,647
2025	2,778	0	221	1,951	4,950	15,323	19,737	8,886
2026	1,903	0	87	1,490	3,480	11,699	31,436	6,143
2027	1,645	0	124	1,140	2,909	8,506	39,942	4,044
2028	1,440	0	87	873	2,400	6,196	46,138	2,667
2029	1,271	0	95	669	2,035	4,442	50,580	1,730
2030	1,116	0	57	513	1,686	3,198	53,778	1,128
2031	1,004	0	95	395	1,494	2,195	55,973	701
2032	912	0	57	295	1,264	1,450	57,423	419
2033	0	0	200	0	200	-200	57,223	-52
2034	0	0	0	0	0	0	57,223	0
Sub-Total	15,074	0	13,608	9,407	38,089	57,223		27,655
Remainder	0	0	0	0	0	0	57,223	0
Total Future	15,074	0	13,608	9,407	38,089	57,223		27,655



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
WEST WELL BS\_AF\_11 (WEST BIYSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	32,076
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	28,534
REMARKS								15.00%	23,985
								20.00%	18,029
								25.00%	13,598

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	75,131	39,037	887	70,959	36,869	754	53.03	2.83
2023	1	245,389	134,031	3,046	245,389	134,031	2,742	53.03	2.83
2024	1	176,214	104,571	2,377	176,213	104,571	2,139	53.03	2.83
2025	1	126,539	81,586	1,854	126,539	81,586	1,668	53.03	2.83
2026	1	90,868	63,654	1,447	90,868	63,654	1,302	53.03	2.83
2027	1	65,252	49,662	1,129	65,252	49,662	1,016	53.03	2.83
2028	1	46,857	38,747	880	46,858	38,747	793	53.03	2.83
2029	1	33,649	30,230	687	33,648	30,230	618	53.03	2.83
2030	1	24,162	23,586	536	24,163	23,586	483	53.03	2.83
2031	1	17,352	18,401	418	17,351	18,401	376	53.03	2.83
2032	1	12,460	14,357	327	12,115	13,959	286	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		913,873	597,862	13,588	909,355	595,296	12,177	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		913,873	597,862	13,588	909,355	595,296	12,177	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		913,873	597,862	13,588	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	3,763	1,196	2,134	0	7,093	118	133	6,842
2023	13,013	4,348	7,759	0	25,120	468	484	24,168
2024	9,345	3,392	6,053	0	18,790	403	378	18,009
2025	6,710	2,647	4,723	0	14,080	315	299	13,466
2026	4,819	2,065	3,684	0	10,568	226	236	10,106
2027	3,460	1,611	2,875	0	7,946	149	179	7,618
2028	2,485	1,257	2,243	0	5,985	94	140	5,751
2029	1,784	981	1,750	0	4,515	64	109	4,342
2030	1,282	765	1,365	0	3,412	45	86	3,281
2031	920	597	1,065	0	2,582	31	66	2,485
2032	642	452	809	0	1,903	21	50	1,832
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	48,223	19,311	34,460	0	101,994	1,934	2,160	97,900
Remainder	0	0	0	0	0	0	0	0
Total Future	48,223	19,311	34,460	0	101,994	1,934	2,160	97,900

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	413	0	413	-413	-413	-391
2021	0	0	211	0	211	-211	-624	-181
2022	1,258	0	11,407	637	13,302	-6,460	-7,084	-5,283
2023	4,087	0	366	2,284	6,737	17,431	10,347	12,328
2024	2,468	0	229	1,744	4,441	13,568	23,915	8,693
2025	1,839	0	226	1,332	3,397	10,069	33,984	5,838
2026	1,263	0	89	1,020	2,372	7,734	41,718	4,062
2027	1,095	0	128	781	2,004	5,614	47,332	2,669
2028	960	0	89	599	1,648	4,103	51,435	1,765
2029	850	0	97	460	1,407	2,935	54,370	1,144
2030	748	0	59	354	1,161	2,120	56,490	748
2031	674	0	97	272	1,043	1,442	57,932	460
2032	614	0	59	204	877	955	58,887	277
2033	0	0	200	0	200	-200	58,687	-53
2034	0	0	0	0	0	0	58,687	0
Sub-Total	15,856	0	13,670	9,687	39,213	58,687		32,076
Remainder	0	0	0	0	0	0	58,687	0
Total Future	15,856	0	13,670	9,687	39,213	58,687		32,076



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 119 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	31,797
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	30,004
REMARKS								15.00% -	27,641
								20.00% -	24,399
								25.00% -	21,819

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	120,383	101,072	2,297	114,680	96,284	1,969	53.03	2.83
2021	1	83,064	85,234	1,937	79,138	81,205	1,661	53.03	2.83
2022	1	57,315	71,878	1,634	57,314	71,878	1,471	53.03	2.83
2023	1	39,547	60,615	1,377	39,547	60,614	1,240	53.03	2.83
2024	1	27,287	51,116	1,162	27,287	51,117	1,045	53.03	2.83
2025	1	18,828	43,106	980	18,829	43,106	882	53.03	2.83
2026	1	12,992	36,352	826	12,991	36,352	743	53.03	2.83
2027	1	8,964	30,655	697	8,964	30,655	627	53.03	2.83
2028	1	6,185	25,852	587	6,185	25,852	529	53.03	2.83
2029	1	4,268	21,801	496	4,268	21,800	446	53.03	2.83
2030	1	2,945	18,384	418	2,945	18,385	376	53.03	2.83
2031	1	2,032	15,504	352	2,032	15,503	317	53.03	2.83
2032	1	1,402	13,074	297	1,368	12,754	261	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		385,212	574,643	13,060	375,548	565,505	11,567	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		385,212	574,643	13,060	375,548	565,505	11,567	53.03	2.83
Cumulative		5,373,159	0	43,940	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		5,758,371	574,643	57,000					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	6,081	3,123	5,574	0	14,778	243	348	14,187
2021	4,197	2,635	4,700	0	11,532	151	293	11,088
2022	3,040	2,331	4,161	0	9,532	109	260	9,163
2023	2,097	1,967	3,509	0	7,573	75	219	7,279
2024	1,447	1,658	2,959	0	6,064	51	185	5,828
2025	998	1,398	2,495	0	4,891	34	155	4,702
2026	689	1,180	2,104	0	3,973	22	132	3,819
2027	476	994	1,775	0	3,245	15	111	3,119
2028	328	839	1,496	0	2,663	10	93	2,560
2029	226	707	1,262	0	2,195	6	79	2,110
2030	156	596	1,064	0	1,816	5	66	1,745
2031	108	503	898	0	1,509	3	56	1,450
2032	72	414	738	0	1,224	2	46	1,176
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	19,915	18,345	32,735	0	70,995	726	2,043	68,226
Remainder	0	0	0	0	0	0	0	0
Total Future	19,915	18,345	32,735	0	70,995	726	2,043	68,226

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	2,838	0	766	1,484	5,088	9,099	9,099	8,688
2021	2,487	0	398	1,208	4,093	6,995	16,094	6,040
2022	1,769	0	569	1,036	3,374	5,789	21,883	4,524
2023	1,061	0	480	852	2,393	4,886	26,769	3,455
2024	730	0	260	702	1,692	4,136	30,905	2,648
2025	576	0	255	582	1,413	3,289	34,194	1,907
2026	450	0	99	484	1,033	2,786	36,980	1,463
2027	410	0	135	402	947	2,172	39,152	1,031
2028	396	0	91	336	823	1,737	40,889	747
2029	376	0	95	281	752	1,358	42,247	529
2030	371	0	55	236	662	1,083	43,330	382
2031	348	0	87	197	632	818	44,148	261
2032	360	0	50	162	572	604	44,752	175
2033	0	0	200	0	200	-200	44,552	-53
2034	0	0	0	0	0	0	44,552	0
Sub-Total	12,172	0	3,540	7,962	23,674	44,552		31,797
Remainder	0	0	0	0	0	0	44,552	0
Total Future	12,172	0	3,540	7,962	23,674	44,552		31,797



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 20\_B (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	
								COMPOUNDED MONTHLY	
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	18,827
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	17,722
REMARKS								15.00%	16,270
								20.00%	14,286
								25.00%	12,713

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	79,505	48,148	1,094	75,739	45,867	938	53.03	2.83
2021	1	60,027	41,183	936	57,189	39,236	803	53.03	2.83
2022	1	45,320	35,224	801	45,320	35,224	720	53.03	2.83
2023	1	34,217	30,129	685	34,217	30,129	617	53.03	2.83
2024	1	25,833	25,770	585	25,833	25,770	527	53.03	2.83
2025	1	19,505	22,042	501	19,505	22,042	450	53.03	2.83
2026	1	14,725	18,853	429	14,725	18,853	386	53.03	2.83
2027	1	11,118	16,125	366	11,118	16,125	330	53.03	2.83
2028	1	8,394	13,793	314	8,394	13,793	282	53.03	2.83
2029	1	6,338	11,797	268	6,338	11,797	241	53.03	2.83
2030	1	4,785	10,091	229	4,785	10,091	207	53.03	2.83
2031	1	3,612	8,630	196	3,612	8,631	176	53.03	2.83
2032	1	2,728	7,383	168	2,661	7,201	148	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		316,107	289,168	6,572	309,436	284,759	5,825	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		316,107	289,168	6,572	309,436	284,759	5,825	53.03	2.83
Cumulative		1,999,614	0	15,862	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		2,315,721	289,168	22,434					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	4,016	1,488	2,655	0	8,159	160	166	7,833
2021	3,033	1,273	2,271	0	6,577	110	141	6,326
2022	2,403	1,142	2,039	0	5,584	86	128	5,370
2023	1,815	978	1,744	0	4,537	65	109	4,363
2024	1,370	836	1,492	0	3,698	48	93	3,557
2025	1,034	715	1,276	0	3,025	35	79	2,911
2026	781	611	1,091	0	2,483	25	68	2,390
2027	590	524	934	0	2,048	18	59	1,971
2028	445	447	798	0	1,690	14	50	1,626
2029	336	383	683	0	1,402	10	42	1,350
2030	254	327	584	0	1,165	7	37	1,121
2031	191	280	500	0	971	6	31	934
2032	141	234	417	0	792	4	26	762
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	16,409	9,238	16,484	0	42,131	588	1,029	40,514
Remainder	0	0	0	0	0	0	0	0
Total Future	16,409	9,238	16,484	0	42,131	588	1,029	40,514

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	
2020	1,581	0	427	761	2,769	5,064	5,064	4,834	
2021	1,433	0	231	631	2,295	4,031	9,095	3,480	
2022	1,049	0	337	552	1,938	3,432	12,527	2,682	
2023	643	0	292	460	1,395	2,968	15,495	2,098	
2024	452	0	162	385	999	2,558	18,053	1,638	
2025	362	0	160	323	845	2,066	20,119	1,197	
2026	285	0	62	271	618	1,772	21,891	930	
2027	264	0	87	228	579	1,392	23,283	661	
2028	255	0	59	192	506	1,120	24,403	482	
2029	244	0	62	162	468	882	25,285	343	
2030	242	0	36	138	416	705	25,990	249	
2031	227	0	56	116	399	535	26,525	170	
2032	236	0	33	96	365	397	26,922	115	
2033	0	0	200	0	200	-200	26,722	-52	
2034	0	0	0	0	0	0	26,722	0	
Sub-Total	7,273	0	2,204	4,315	13,792	26,722		18,827	
Remainder	0	0	0	0	0	0	26,722	0	
Total Future	7,273	0	2,204	4,315	13,792	26,722		18,827	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 205 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	28,787
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	26,985
REMARKS								15.00%	24,632
								20.00%	21,450
								25.00%	18,959

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	110,063	70,906	1,612	104,850	67,548	1,382	53.03	2.83
2021	1	83,649	62,540	1,421	79,693	59,582	1,218	53.03	2.83
2022	1	63,572	55,160	1,253	63,573	55,160	1,129	53.03	2.83
2023	1	48,315	48,651	1,106	48,315	48,651	995	53.03	2.83
2024	1	36,720	42,910	975	36,719	42,910	878	53.03	2.83
2025	1	27,907	37,847	861	27,907	37,847	774	53.03	2.83
2026	1	21,209	33,380	758	21,209	33,381	682	53.03	2.83
2027	1	16,119	29,442	669	16,119	29,442	603	53.03	2.83
2028	1	12,250	25,968	591	12,251	25,968	531	53.03	2.83
2029	1	9,311	22,904	520	9,310	22,903	468	53.03	2.83
2030	1	7,075	20,201	459	7,076	20,201	413	53.03	2.83
2031	1	5,378	17,817	405	5,378	17,817	365	53.03	2.83
2032	1	4,087	15,715	357	3,986	15,329	313	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		445,655	483,441	10,987	436,386	476,739	9,751	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		445,655	483,441	10,987	436,386	476,739	9,751	53.03	2.83
Cumulative		1,182,008	0	10,915	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		1,627,663	483,441	21,902	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	5,560	2,191	3,910	0	11,661	222	244	11,195
2021	4,226	1,933	3,449	0	9,608	152	215	9,241
2022	3,372	1,789	3,193	0	8,354	121	200	8,033
2023	2,562	1,579	2,816	0	6,957	92	175	6,690
2024	1,947	1,392	2,484	0	5,823	68	155	5,600
2025	1,480	1,227	2,191	0	4,898	50	137	4,711
2026	1,125	1,083	1,932	0	4,140	37	121	3,982
2027	854	955	1,705	0	3,514	26	106	3,382
2028	650	843	1,503	0	2,996	20	94	2,882
2029	494	743	1,326	0	2,563	14	83	2,466
2030	375	655	1,169	0	2,199	12	73	2,114
2031	285	578	1,031	0	1,894	8	64	1,822
2032	212	497	888	0	1,597	7	55	1,535
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,142	15,465	27,597	0	66,204	829	1,722	63,653
Remainder	0	0	0	0	0	0	0	0
Total Future	23,142	15,465	27,597	0	66,204	829	1,722	63,653

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	2,257	0	610	1,103	3,970	7,225	7,225	6,895
2021	2,088	0	336	941	3,365	5,876	13,101	5,071
2022	1,563	0	505	845	2,913	5,120	18,221	4,000
2023	983	0	446	726	2,155	4,535	22,756	3,205
2024	708	0	254	625	1,587	4,013	26,769	2,569
2025	583	0	259	540	1,382	3,329	30,098	1,930
2026	474	0	104	467	1,045	2,937	33,035	1,541
2027	450	0	149	406	1,005	2,377	35,412	1,129
2028	451	0	104	353	908	1,974	37,386	849
2029	444	0	112	307	863	1,603	38,989	623
2030	453	0	67	269	789	1,325	40,314	467
2031	442	0	110	234	786	1,036	41,350	331
2032	473	0	66	200	739	796	42,146	229
2033	0	0	200	0	200	-200	41,946	-52
2034	0	0	0	0	0	0	41,946	0
Sub-Total	11,369	0	3,322	7,016	21,707	41,946		28,787
Remainder	0	0	0	0	0	0	41,946	0
Total Future	11,369	0	3,322	7,016	21,707	41,946		28,787





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 205 (NE BIYSKI)

GAS LEASE  
PROVED  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	10,113
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	9,127
REMARKS	PROPOSED RECOMPLETION TO AFONINSKI & COMMINGLE WITH BISKI							15.00%	7,855
								20.00%	6,178
								25.00%	4,913

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	31,894	24,069	547	31,894	24,069	492	53.03	2.83
2023	1	39,236	31,270	711	39,236	31,270	640	53.03	2.83
2024	1	30,879	26,295	597	30,879	26,295	538	53.03	2.83
2025	1	24,301	22,111	503	24,301	22,111	452	53.03	2.83
2026	1	19,126	18,594	422	19,126	18,594	380	53.03	2.83
2027	1	15,051	15,635	356	15,051	15,635	320	53.03	2.83
2028	1	11,846	13,148	299	11,846	13,148	269	53.03	2.83
2029	1	9,323	11,056	251	9,323	11,056	226	53.03	2.83
2030	1	7,336	9,297	211	7,336	9,297	190	53.03	2.83
2031	1	5,775	7,817	178	5,775	7,817	160	53.03	2.83
2032	1	4,544	6,574	149	4,432	6,413	132	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		199,311	185,866	4,224	199,199	185,705	3,799	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		199,311	185,866	4,224	199,199	185,705	3,799	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		199,311	185,866	4,224					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	1,691	781	1,393	0	3,865	61	87	3,717
2023	2,081	1,014	1,810	0	4,905	74	113	4,718
2024	1,638	853	1,522	0	4,013	57	95	3,861
2025	1,288	717	1,280	0	3,285	44	80	3,161
2026	1,014	604	1,077	0	2,695	33	67	2,595
2027	799	507	905	0	2,211	25	57	2,129
2028	628	426	761	0	1,815	18	47	1,750
2029	494	359	640	0	1,493	15	40	1,438
2030	389	302	538	0	1,229	12	34	1,183
2031	306	253	453	0	1,012	9	28	975
2032	236	208	371	0	815	7	23	785
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,564	6,024	10,750	0	27,338	355	671	26,312
Remainder	0	0	0	0	0	0	0	0
Total Future	10,564	6,024	10,750	0	27,338	355	671	26,312

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	668	0	564	379	1,611	2,106	2,106	1,606
2023	698	0	316	487	1,501	3,217	5,323	2,275
2024	492	0	176	405	1,073	2,788	8,111	1,784
2025	395	0	175	335	905	2,256	10,367	1,308
2026	312	0	69	279	660	1,935	12,302	1,015
2027	287	0	94	232	613	1,516	13,818	721
2028	277	0	64	193	534	1,216	15,034	522
2029	263	0	67	161	491	947	15,981	370
2030	258	0	38	134	430	753	16,734	265
2031	240	0	59	111	410	565	17,299	180
2032	246	0	34	91	371	414	17,713	120
2033	0	0	200	0	200	-200	17,513	-53
2034	0	0	0	0	0	0	17,513	0
Sub-Total	4,136	0	1,856	2,807	8,799	17,513		10,113
Remainder	0	0	0	0	0	0	17,513	0
Total Future	4,136	0	1,856	2,807	8,799	17,513		10,113



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 215 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	12,623
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	11,881
REMARKS								15.00%	10,904
								20.00%	9,566
								25.00%	8,506

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	47,364	35,124	798	45,120	33,460	684	53.03	2.83
2021	1	36,977	29,539	672	35,229	28,142	576	53.03	2.83
2022	1	28,868	24,842	564	28,868	24,843	508	53.03	2.83
2023	1	22,537	20,893	475	22,537	20,892	428	53.03	2.83
2024	1	17,595	17,570	399	17,595	17,571	359	53.03	2.83
2025	1	13,736	14,777	336	13,736	14,777	302	53.03	2.83
2026	1	10,724	12,427	283	10,724	12,427	254	53.03	2.83
2027	1	8,372	10,452	237	8,372	10,451	214	53.03	2.83
2028	1	6,536	8,789	200	6,537	8,790	180	53.03	2.83
2029	1	5,103	7,392	168	5,102	7,392	151	53.03	2.83
2030	1	3,984	6,217	141	3,984	6,217	127	53.03	2.83
2031	1	3,110	5,228	119	3,110	5,228	107	53.03	2.83
2032	1	2,428	4,397	100	2,369	4,289	88	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		207,334	197,647	4,492	203,283	194,479	3,978	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		207,334	197,647	4,492	203,283	194,479	3,978	53.03	2.83
Cumulative		4,157,383	0	34,033	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		4,364,717	197,647	38,525	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	2,393	1,085	1,937	0	5,415	95	121	5,199
2021	1,868	913	1,629	0	4,410	68	102	4,240
2022	1,531	806	1,438	0	3,775	55	89	3,631
2023	1,195	678	1,209	0	3,082	43	76	2,963
2024	933	570	1,017	0	2,520	32	63	2,425
2025	728	479	856	0	2,063	25	54	1,984
2026	569	404	719	0	1,692	18	45	1,629
2027	444	339	605	0	1,388	14	37	1,337
2028	347	285	509	0	1,141	10	32	1,099
2029	270	239	428	0	937	9	27	901
2030	212	202	360	0	774	6	22	746
2031	164	170	302	0	636	5	19	612
2032	126	139	249	0	514	4	16	494
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,780	6,309	11,258	0	28,347	384	703	27,260
Remainder	0	0	0	0	0	0	0	0
Total Future	10,780	6,309	11,258	0	28,347	384	703	27,260

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	1,044	0	282	529	1,855	3,344	3,344	3,191	
2021	957	0	154	438	1,549	2,691	6,035	2,323	
2022	707	0	228	382	1,317	2,314	8,349	1,808	
2023	436	0	198	316	950	2,013	10,362	1,424	
2024	308	0	110	262	680	1,745	12,107	1,116	
2025	247	0	110	218	575	1,409	13,516	818	
2026	195	0	42	181	418	1,211	14,727	634	
2027	179	0	60	151	390	947	15,674	450	
2028	174	0	40	126	340	759	16,433	327	
2029	164	0	41	104	309	592	17,025	231	
2030	161	0	24	87	272	474	17,499	166	
2031	150	0	37	73	260	352	17,851	113	
2032	155	0	22	59	236	258	18,109	75	
2033	0	0	200	0	200	-200	17,909	-53	
2034	0	0	0	0	0	0	17,909	0	
Sub-Total	4,877	0	1,548	2,926	9,351	17,909		12,623	
Remainder	0	0	0	0	0	0	17,909	0	
Total Future	4,877	0	1,548	2,926	9,351	17,909		12,623	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 215 (NE BIYSKI)

GAS LEASE  
PROBABLE  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	9,909
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	8,899
REMARKS	PROPOSED RECOMPLETION IN AFONINSKI & COMMINGLE WITH BISKI							15.00%	7,602
								20.00%	5,899
								25.00%	4,623

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	24,391	18,309	416	23,037	17,293	354	53.03	2.83
2023	1	40,834	32,187	732	40,834	32,186	658	53.03	2.83
2024	1	32,137	27,065	615	32,136	27,066	554	53.03	2.83
2025	1	25,291	22,760	517	25,292	22,759	465	53.03	2.83
2026	1	19,905	19,138	435	19,904	19,138	392	53.03	2.83
2027	1	15,664	16,094	366	15,665	16,094	329	53.03	2.83
2028	1	12,328	13,533	307	12,328	13,533	277	53.03	2.83
2029	1	9,703	11,380	259	9,702	11,380	232	53.03	2.83
2030	1	7,635	9,569	217	7,636	9,569	196	53.03	2.83
2031	1	6,010	8,047	183	6,009	8,047	165	53.03	2.83
2032	1	4,729	6,766	154	4,598	6,579	134	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		198,627	184,848	4,201	197,141	183,644	3,756	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		198,627	184,848	4,201	197,141	183,644	3,756	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		198,627	184,848	4,201					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	1,222	561	1,001	0	2,784	38	62	2,684
2023	2,165	1,044	1,863	0	5,072	78	117	4,877
2024	1,704	878	1,567	0	4,149	74	98	3,977
2025	1,341	738	1,317	0	3,396	63	83	3,250
2026	1,056	621	1,108	0	2,785	49	71	2,665
2027	831	522	932	0	2,285	36	58	2,191
2028	653	439	783	0	1,875	25	49	1,801
2029	515	370	659	0	1,544	18	41	1,485
2030	405	310	554	0	1,269	14	34	1,221
2031	319	261	466	0	1,046	11	30	1,005
2032	243	213	380	0	836	8	23	805
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,454	5,957	10,630	0	27,041	414	666	25,961
Remainder	0	0	0	0	0	0	0	0
Total Future	10,454	5,957	10,630	0	27,041	414	666	25,961

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	0	0	123	0	123	-123	-123	-117	
2021	0	0	63	0	63	-63	-186	-54	
2022	673	0	322	273	1,268	1,416	1,230	1,067	
2023	815	0	109	502	1,426	3,451	4,681	2,439	
2024	540	0	69	417	1,026	2,951	7,632	1,890	
2025	440	0	67	347	854	2,396	10,028	1,389	
2026	331	0	27	287	645	2,020	12,048	1,060	
2027	313	0	38	240	591	1,600	13,648	760	
2028	299	0	27	199	525	1,276	14,924	549	
2029	289	0	29	165	483	1,002	15,926	389	
2030	277	0	17	138	432	789	16,715	278	
2031	272	0	29	115	416	589	17,304	188	
2032	269	0	18	93	380	425	17,729	123	
2033	0	0	200	0	200	-200	17,529	-52	
2034	0	0	0	0	0	0	17,529	0	
Sub-Total	4,518	0	1,138	2,776	8,432	17,529		9,909	
Remainder	0	0	0	0	0	0	17,529	0	
Total Future	4,518	0	1,138	2,776	8,432	17,529		9,909	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 218 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	27,976
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	26,013
REMARKS								15.00%	23,475
								20.00%	20,096
								25.00%	17,502

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	106,060	48,270	1,097	101,036	45,984	941	53.03	2.83
2021	1	90,151	43,927	998	85,889	41,849	856	53.03	2.83
2022	1	76,629	39,972	909	76,629	39,973	817	53.03	2.83
2023	1	65,134	36,375	827	65,134	36,375	744	53.03	2.83
2024	1	55,364	33,102	752	55,364	33,102	677	53.03	2.83
2025	1	47,060	30,122	684	47,060	30,122	616	53.03	2.83
2026	1	40,000	27,411	623	40,000	27,411	561	53.03	2.83
2027	1	34,001	24,945	567	34,001	24,944	510	53.03	2.83
2028	1	28,900	22,699	516	28,900	22,700	465	53.03	2.83
2029	1	24,566	20,656	470	24,566	20,656	422	53.03	2.83
2030	1	20,880	18,798	427	20,880	18,797	385	53.03	2.83
2031	1	17,749	17,105	389	17,749	17,106	350	53.03	2.83
2032	1	15,086	15,566	353	14,715	15,184	310	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		621,580	378,948	8,612	611,923	374,203	7,654	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		621,580	378,948	8,612	611,923	374,203	7,654	53.03	2.83
Cumulative		2,258,911	0	17,076	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		2,880,491	378,948	25,688	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	5,358	1,492	2,662	0	9,512	214	166	9,132
2021	4,555	1,357	2,422	0	8,334	164	151	8,019
2022	4,063	1,297	2,314	0	7,674	146	145	7,383
2023	3,454	1,180	2,106	0	6,740	123	131	6,486
2024	2,936	1,074	1,916	0	5,926	103	120	5,703
2025	2,496	977	1,744	0	5,217	85	109	5,023
2026	2,121	889	1,586	0	4,596	69	99	4,428
2027	1,803	809	1,444	0	4,056	55	90	3,911
2028	1,533	737	1,314	0	3,584	46	82	3,456
2029	1,302	670	1,196	0	3,168	39	74	3,055
2030	1,108	610	1,088	0	2,806	34	68	2,704
2031	941	555	990	0	2,486	28	62	2,396
2032	780	492	879	0	2,151	23	55	2,073
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	32,450	12,139	21,661	0	66,250	1,129	1,352	63,769
Remainder	0	0	0	0	0	0	0	0
Total Future	32,450	12,139	21,661	0	66,250	1,129	1,352	63,769

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	1,859	0	504	826	3,189	5,943	5,943	5,667
2021	1,832	0	296	737	2,865	5,154	11,097	4,447
2022	1,453	0	472	690	2,615	4,768	15,865	3,723
2023	966	0	440	616	2,022	4,464	20,329	3,153
2024	732	0	264	551	1,547	4,156	24,485	2,660
2025	633	0	282	493	1,408	3,615	28,100	2,094
2026	538	0	118	441	1,097	3,331	31,431	1,747
2027	533	0	176	396	1,105	2,806	34,237	1,333
2028	552	0	128	354	1,034	2,422	36,659	1,040
2029	564	0	142	319	1,025	2,030	38,689	790
2030	593	0	89	286	968	1,736	40,425	612
2031	596	0	148	257	1,001	1,395	41,820	445
2032	656	0	91	225	972	1,101	42,921	318
2033	0	0	200	0	200	-200	42,721	-53
2034	0	0	0	0	0	0	42,721	0
Sub-Total	11,507	0	3,350	6,191	21,048	42,721		27,976
Remainder	0	0	0	0	0	0	42,721	0
Total Future	11,507	0	3,350	6,191	21,048	42,721		27,976



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 218 (NE BIYSKI)

GAS LEASE  
PROBABLE  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	9,882
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	8,856
REMARKS	PROPOSED RECOMPLETION IN AFONINSKI & COMMINGLE WITH BISKI							15.00%	7,541
								20.00%	5,819
								25.00%	4,534

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	16,583	12,382	281	15,662	11,694	239	53.03	2.83
2023	1	42,497	33,129	753	42,497	33,130	678	53.03	2.83
2024	1	33,446	27,859	633	33,446	27,858	570	53.03	2.83
2025	1	26,321	23,426	533	26,321	23,426	479	53.03	2.83
2026	1	20,715	19,699	448	20,715	19,700	403	53.03	2.83
2027	1	16,303	16,565	376	16,303	16,565	339	53.03	2.83
2028	1	12,830	13,930	317	12,830	13,929	285	53.03	2.83
2029	1	10,098	11,713	266	10,098	11,713	239	53.03	2.83
2030	1	7,946	9,850	224	7,946	9,850	202	53.03	2.83
2031	1	6,254	8,283	188	6,254	8,283	169	53.03	2.83
2032	1	4,922	6,964	158	4,786	6,772	139	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		197,915	183,800	4,177	196,858	182,920	3,742	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		197,915	183,800	4,177	196,858	182,920	3,742	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		197,915	183,800	4,177					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	831	379	677	0	1,887	26	42	1,819
2023	2,253	1,075	1,918	0	5,246	81	120	5,045
2024	1,774	904	1,612	0	4,290	77	101	4,112
2025	1,396	760	1,356	0	3,512	65	86	3,361
2026	1,098	639	1,141	0	2,878	52	72	2,754
2027	865	537	959	0	2,361	37	60	2,264
2028	680	452	806	0	1,938	26	50	1,862
2029	536	380	678	0	1,594	19	43	1,532
2030	421	320	570	0	1,311	15	35	1,261
2031	332	268	480	0	1,080	11	30	1,039
2032	253	220	392	0	865	8	25	832
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,439	5,934	10,589	0	26,962	417	664	25,881
Remainder	0	0	0	0	0	0	0	0
Total Future	10,439	5,934	10,589	0	26,962	417	664	25,881

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %	%
2020	0	0	124	0	124	-124	-124	-118	
2021	0	0	64	0	64	-64	-188	-54	
2022	340	0	322	185	847	972	784	725	
2023	843	0	110	518	1,471	3,574	4,358	2,526	
2024	559	0	69	430	1,058	3,054	7,412	1,956	
2025	455	0	68	357	880	2,481	9,893	1,437	
2026	342	0	27	297	666	2,088	11,981	1,096	
2027	323	0	38	247	608	1,656	13,637	786	
2028	310	0	27	205	542	1,320	14,957	568	
2029	298	0	29	171	498	1,034	15,991	403	
2030	286	0	18	142	446	815	16,806	287	
2031	281	0	29	119	429	610	17,416	195	
2032	278	0	18	96	392	440	17,856	127	
2033	0	0	200	0	200	-200	17,656	-52	
2034	0	0	0	0	0	0	17,656	0	
Sub-Total	4,315	0	1,143	2,767	8,225	17,656		9,882	
Remainder	0	0	0	0	0	0	17,656	0	
Total Future	4,315	0	1,143	2,767	8,225	17,656		9,882	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 209 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	-79
FINAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	12.00%	-68
REMARKS								15.00%	-54
								20.00%	-34
								25.00%	-20

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	487	213	5	464	203	4	53.03	2.83
2021	1	202	98	2	192	93	2	53.03	2.83
2022	1	84	15	0	84	16	0	53.03	2.83
2023	1	35	0	0	35	0	0	53.03	0.00
2024	1	11	0	0	11	0	0	53.03	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		819	326	7	786	312	6	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		819	326	7	786	312	6	53.03	2.83
Cumulative		52,995	0	406	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		53,814	326	413					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	25	7	12	0	44	1	1	42
2021	10	3	5	0	18	0	0	18
2022	4	0	1	0	5	1	0	4
2023	2	0	0	0	2	0	0	2
2024	1	0	0	0	1	0	0	1
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	42	10	18	0	70	2	1	67
Remainder	0	0	0	0	0	0	0	0
Total Future	42	10	18	0	70	2	1	67

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	8	0	2	4	14	28	28	26
2021	4	0	1	1	6	12	40	10
2022	2	0	0	1	3	1	41	3
2023	0	0	0	0	0	2	43	1
2024	0	0	0	0	0	1	44	0
2025	0	0	200	0	200	-200	-156	-119
2026	0	0	0	0	0	0	-156	0
2027	0	0	0	0	0	0	-156	0
2028	0	0	0	0	0	0	-156	0
2029	0	0	0	0	0	0	-156	0
2030	0	0	0	0	0	0	-156	0
2031	0	0	0	0	0	0	-156	0
2032	0	0	0	0	0	0	-156	0
2033	0	0	0	0	0	0	-156	0
2034	0	0	0	0	0	0	-156	0
Sub-Total	14	0	203	6	223	-156		-79
Remainder	0	0	0	0	0	0	-156	0
Total Future	14	0	203	6	223	-156		-79



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 219 (WEST FILIPPOVSKI)

OIL LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	2,846
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	2,703
REMARKS								15.00%	2,510
								20.00%	2,238
								25.00%	2,016

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	12,368	8,850	201	11,782	8,430	174	53.03	2.83
2021	1	9,276	7,079	161	8,837	6,745	140	53.03	2.83
2022	1	6,957	5,664	129	6,957	5,664	117	53.03	2.83
2023	1	5,217	4,531	103	5,218	4,531	94	53.03	2.83
2024	1	3,914	3,625	82	3,913	3,625	75	53.03	2.83
2025	1	2,934	2,899	66	2,935	2,900	60	53.03	2.83
2026	1	2,202	2,320	53	2,201	2,319	48	53.03	2.83
2027	1	1,651	1,856	42	1,651	1,856	38	53.03	2.83
2028	1	1,238	1,485	34	1,238	1,485	31	53.03	2.83
2029	1	928	1,188	27	929	1,188	24	53.03	2.83
2030	1	697	950	21	696	950	20	53.03	2.83
2031	1	522	760	18	523	760	16	53.03	2.83
2032	1	392	608	13	382	593	12	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		48,296	41,815	950	47,262	41,046	849	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		48,296	41,815	950	47,262	41,046	849	53.03	2.83
Cumulative		12,509	0	194	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		60,805	41,815	1,144					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	625	273	493	0	1,391	25	31	1,335
2021	468	219	395	0	1,082	17	24	1,041
2022	369	184	332	0	885	13	21	851
2023	277	147	265	0	689	10	16	663
2024	208	118	212	0	538	7	14	517
2025	155	94	170	0	419	6	10	403
2026	117	75	136	0	328	3	8	317
2027	87	60	108	0	255	3	7	245
2028	66	48	87	0	201	2	6	193
2029	49	39	70	0	158	1	4	153
2030	37	31	55	0	123	2	3	118
2031	28	24	45	0	97	0	3	94
2032	20	20	34	0	74	1	2	71
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	2,506	1,332	2,402	0	6,240	90	149	6,001
Remainder	0	0	0	0	0	0	0	0
Total Future	2,506	1,332	2,402	0	6,240	90	149	6,001

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative @ 10.00 %	%
2020	268	0	72	135	475	860	860	821
2021	235	0	38	107	380	661	1,521	571
2022	166	0	53	88	307	544	2,065	424
2023	98	0	45	70	213	450	2,515	319
2024	66	0	23	55	144	373	2,888	239
2025	50	0	22	44	116	287	3,175	166
2026	38	0	9	34	81	236	3,411	124
2027	33	0	10	28	71	174	3,585	83
2028	31	0	8	21	60	133	3,718	58
2029	28	0	6	18	52	101	3,819	39
2030	25	0	4	13	42	76	3,895	26
2031	23	0	6	11	40	54	3,949	17
2032	23	0	3	8	34	37	3,986	11
2033	0	0	200	0	200	-200	3,786	-52
2034	0	0	0	0	0	0	3,786	0
Sub-Total	1,084	0	499	632	2,215	3,786		2,846
Remainder	0	0	0	0	0	0	3,786	0
Total Future	1,084	0	499	632	2,215	3,786		2,846



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 1 (WEST FILIPPOVSKI)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.956012	0.956012	0.956012	53.03	32.44	2.83	10.00% -	4,135
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00% -	3,916
REMARKS								15.00% -	3,614
								20.00% -	3,177
								25.00% -	2,808

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	14,054	9,199	209	13,436	8,795	182	53.03	2.83
2021	1	24,230	17,225	392	23,146	16,454	340	53.03	2.83
2022	1	15,023	12,058	274	14,189	11,388	236	53.03	2.83
2023	1	9,315	8,440	191	9,314	8,440	174	53.03	2.83
2024	1	5,774	5,908	135	5,775	5,908	122	53.03	2.83
2025	1	3,581	4,135	94	3,580	4,136	86	53.03	2.83
2026	1	2,220	2,895	65	2,220	2,894	60	53.03	2.83
2027	1	1,376	2,027	47	1,376	2,027	42	53.03	2.83
2028	1	853	1,418	32	854	1,418	29	53.03	2.83
2029	1	529	993	22	529	993	21	53.03	2.83
2030	1	328	695	16	328	696	14	53.03	2.83
2031	1	204	487	11	203	486	10	53.03	2.83
2032	1	126	341	8	123	331	7	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		77,613	65,821	1,496	75,073	63,966	1,323	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		77,613	65,821	1,496	75,073	63,966	1,323	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		77,613	65,821	1,496					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	712	285	515	0	1,512	21	32	1,459
2021	1,228	534	963	0	2,725	37	60	2,628
2022	752	369	666	0	1,787	24	41	1,722
2023	494	274	494	0	1,262	18	31	1,213
2024	307	192	346	0	845	13	22	810
2025	189	134	242	0	565	9	15	541
2026	118	94	170	0	382	5	11	366
2027	73	66	118	0	257	3	7	247
2028	45	46	83	0	174	2	5	167
2029	28	32	58	0	118	1	4	113
2030	18	23	41	0	82	1	2	79
2031	11	15	29	0	55	0	2	53
2032	6	11	19	0	36	0	1	35
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,981	2,075	3,744	0	9,800	134	233	9,433
Remainder	0	0	0	0	0	0	0	0
Total Future	3,981	2,075	3,744	0	9,800	134	233	9,433

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	%
						Annual	Cumulative		
2020	311	0	639	144	1,094	365	365	319	
2021	637	0	19	264	920	1,708	2,073	1,476	
2022	402	0	39	178	619	1,103	3,176	865	
2023	203	0	34	129	366	847	4,023	599	
2024	109	0	21	89	219	591	4,614	378	
2025	73	0	22	60	155	386	5,000	225	
2026	45	0	8	42	95	271	5,271	142	
2027	35	0	12	29	76	171	5,442	81	
2028	27	0	8	20	55	112	5,554	48	
2029	22	0	10	14	46	67	5,621	27	
2030	18	0	5	9	32	47	5,668	16	
2031	14	0	9	7	30	23	5,691	8	
2032	11	0	6	4	21	14	5,705	4	
2033	0	0	200	0	200	-200	5,505	-53	
2034	0	0	0	0	0	0	5,505	0	
Sub-Total	1,907	0	1,032	989	3,928	5,505		4,135	
Remainder	0	0	0	0	0	0	5,505	0	
Total Future	1,907	0	1,032	989	3,928	5,505		4,135	





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 2 (WEST FILIPPOVSKI)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.955263	0.955263	0.955263	53.03	32.44	2.83	10.00%	3,915
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	3,662
REMARKS								15.00%	3,318
								20.00%	2,827
								25.00%	2,422

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	25,570	17,129	389	24,426	16,362	338	53.03	2.83
2022	1	19,854	14,846	338	18,752	14,022	290	53.03	2.83
2023	1	12,310	10,392	236	12,309	10,392	215	53.03	2.83
2024	1	7,632	7,274	165	7,633	7,275	151	53.03	2.83
2025	1	4,732	5,093	116	4,731	5,092	105	53.03	2.83
2026	1	2,934	3,564	81	2,934	3,564	74	53.03	2.83
2027	1	1,819	2,495	57	1,819	2,495	51	53.03	2.83
2028	1	1,127	1,747	39	1,128	1,747	37	53.03	2.83
2029	1	700	1,222	28	699	1,223	25	53.03	2.83
2030	1	433	856	20	434	856	18	53.03	2.83
2031	1	269	599	13	268	599	12	53.03	2.83
2032	1	167	420	10	162	407	8	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		77,547	65,637	1,492	75,295	64,034	1,324	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		77,547	65,637	1,492	75,295	64,034	1,324	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		77,547	65,637	1,492					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	1,295	531	958	0	2,784	39	60	2,685
2022	995	455	820	0	2,270	31	51	2,188
2023	653	337	609	0	1,599	23	37	1,539
2024	404	236	425	0	1,065	18	27	1,020
2025	251	165	298	0	714	12	19	683
2026	156	116	209	0	481	7	13	461
2027	96	81	146	0	323	4	9	310
2028	60	56	102	0	218	2	6	210
2029	37	40	72	0	149	2	5	142
2030	23	28	50	0	101	1	3	97
2031	14	19	35	0	68	0	2	66
2032	9	13	24	0	46	0	2	44
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,993	2,077	3,748	0	9,818	139	234	9,445
Remainder	0	0	0	0	0	0	0	0
Total Future	3,993	2,077	3,748	0	9,818	139	234	9,445

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	39	0	39	-39	-39	-37
2021	665	0	620	266	1,551	1,134	1,095	944
2022	511	0	38	223	772	1,416	2,511	1,108
2023	258	0	35	161	454	1,085	3,596	767
2024	138	0	21	110	269	751	4,347	482
2025	93	0	22	76	191	492	4,839	287
2026	56	0	8	52	116	345	5,184	180
2027	44	0	12	35	91	219	5,403	104
2028	34	0	9	25	68	142	5,545	62
2029	28	0	9	17	54	88	5,633	34
2030	22	0	5	12	39	58	5,691	21
2031	17	0	10	8	35	31	5,722	10
2032	15	0	5	6	26	18	5,740	5
2033	0	0	200	0	200	-200	5,540	-52
2034	0	0	0	0	0	0	5,540	0
Sub-Total	1,881	0	1,033	991	3,905	5,540		3,915
Remainder	0	0	0	0	0	0	5,540	0
Total Future	1,881	0	1,033	991	3,905	5,540		3,915



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 3 (WEST FILIPPOVSKI)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.955263	0.955263	0.955263	53.03	32.44	2.83	10.00%	3,863
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	3,601
REMARKS								15.00%	3,246
								20.00%	2,742
								25.00%	2,329

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	21,237	14,098	320	20,287	13,467	279	53.03	2.83
2022	1	21,501	15,755	358	20,307	14,880	307	53.03	2.83
2023	1	13,330	11,029	251	13,330	11,029	228	53.03	2.83
2024	1	8,265	7,720	176	8,265	7,720	160	53.03	2.83
2025	1	5,125	5,404	122	5,125	5,404	112	53.03	2.83
2026	1	3,177	3,783	86	3,177	3,783	78	53.03	2.83
2027	1	1,970	2,648	61	1,969	2,648	55	53.03	2.83
2028	1	1,221	1,853	42	1,222	1,854	38	53.03	2.83
2029	1	757	1,298	29	757	1,297	27	53.03	2.83
2030	1	469	908	21	469	908	19	53.03	2.83
2031	1	292	636	14	291	636	13	53.03	2.83
2032	1	180	445	10	176	433	9	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		77,524	65,577	1,490	75,375	64,059	1,325	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		77,524	65,577	1,490	75,375	64,059	1,325	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		77,524	65,577	1,490					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	1,076	437	788	0	2,301	32	49	2,220
2022	1,077	483	871	0	2,431	34	54	2,343
2023	707	357	646	0	1,710	25	40	1,645
2024	438	251	452	0	1,141	19	28	1,094
2025	272	175	316	0	763	13	20	730
2026	168	123	221	0	512	8	14	490
2027	105	86	155	0	346	4	10	332
2028	64	60	109	0	233	3	7	223
2029	40	42	76	0	158	1	5	152
2030	25	29	53	0	107	1	3	103
2031	16	21	37	0	74	1	2	71
2032	9	14	25	0	48	0	2	46
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,997	2,078	3,749	0	9,824	141	234	9,449
Remainder	0	0	0	0	0	0	0	0
Total Future	3,997	2,078	3,749	0	9,824	141	234	9,449

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	39	0	39	-39	-39	-37
2021	562	0	620	220	1,402	818	779	670
2022	548	0	39	237	824	1,519	2,298	1,189
2023	276	0	34	171	481	1,164	3,462	823
2024	148	0	22	118	288	806	4,268	517
2025	99	0	21	80	200	530	4,798	308
2026	60	0	9	56	125	365	5,163	192
2027	47	0	12	38	97	235	5,398	112
2028	37	0	9	26	72	151	5,549	66
2029	29	0	9	18	56	96	5,645	37
2030	23	0	5	13	41	62	5,707	22
2031	19	0	9	8	36	35	5,742	11
2032	15	0	6	6	27	19	5,761	5
2033	0	0	200	0	200	-200	5,561	-52
2034	0	0	0	0	0	0	5,561	0
Sub-Total	1,863	0	1,034	991	3,888	5,561		3,863
Remainder	0	0	0	0	0	0	5,561	0
Total Future	1,863	0	1,034	991	3,888	5,561		3,863



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 4 (WEST FILIPPOVSKI)

OIL LEASE  
PROBABLE  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000	0.955263	0.955263	0.955263	53.03	32.44	2.83	10.00% -	3,819
	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00% -	3,548
								15.00% -	3,182
								20.00% -	2,665
								25.00% -	2,244

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	16,544	10,881	247	15,804	10,394	215	53.03	2.83
2022	1	23,284	16,720	380	21,991	15,792	327	53.03	2.83
2023	1	14,437	11,704	266	14,436	11,704	242	53.03	2.83
2024	1	8,950	8,193	187	8,951	8,193	169	53.03	2.83
2025	1	5,549	5,735	130	5,549	5,735	119	53.03	2.83
2026	1	3,441	4,015	91	3,441	4,015	83	53.03	2.83
2027	1	2,133	2,810	64	2,133	2,810	58	53.03	2.83
2028	1	1,323	1,967	45	1,322	1,967	41	53.03	2.83
2029	1	820	1,377	31	820	1,377	28	53.03	2.83
2030	1	508	964	22	509	964	20	53.03	2.83
2031	1	315	675	15	315	675	14	53.03	2.83
2032	1	196	472	11	190	459	9	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		77,500	65,513	1,489	75,461	64,085	1,325	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		77,500	65,513	1,489	75,461	64,085	1,325	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		77,500	65,513	1,489	SHRINKAGE FACTOR = 9.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	838	337	608	0	1,783	25	38	1,720
2022	1,166	512	925	0	2,603	37	57	2,509
2023	766	380	685	0	1,831	27	43	1,761
2024	474	266	479	0	1,219	21	30	1,168
2025	295	186	336	0	817	13	21	783
2026	182	130	235	0	547	9	15	523
2027	113	91	164	0	368	5	10	353
2028	70	64	115	0	249	3	7	239
2029	44	45	81	0	170	1	5	164
2030	27	31	56	0	114	1	4	109
2031	17	22	40	0	79	1	2	76
2032	10	15	27	0	52	0	2	50
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	4,002	2,079	3,751	0	9,832	143	234	9,455
Remainder	0	0	0	0	0	0	0	0
Total Future	4,002	2,079	3,751	0	9,832	143	234	9,455

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	39	0	39	-39	-39	-37
2021	445	0	620	170	1,235	485	446	388
2022	587	0	39	253	879	1,630	2,076	1,276
2023	295	0	35	183	513	1,248	3,324	883
2024	159	0	22	125	306	862	4,186	554
2025	105	0	21	85	211	572	4,758	330
2026	65	0	9	59	133	390	5,148	206
2027	50	0	12	41	103	250	5,398	120
2028	39	0	9	28	76	163	5,561	70
2029	31	0	9	19	59	105	5,666	40
2030	25	0	5	13	43	66	5,732	23
2031	20	0	10	9	39	37	5,769	12
2032	17	0	5	7	29	21	5,790	6
2033	0	0	200	0	200	-200	5,590	-52
2034	0	0	0	0	0	0	5,590	0
Sub-Total	1,838	0	1,035	992	3,865	5,590		3,819
Remainder	0	0	0	0	0	0	5,590	0
Total Future	1,838	0	1,035	992	3,865	5,590		3,819



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
WELL 5 (WEST FILIPPOVSKI)

OIL LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.955263	0.955263	0.955263	53.03	32.44	2.83	10.00% -	3,823
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00% -	3,542
REMARKS								15.00% -	3,163
								20.00% -	2,632
								25.00% -	2,201

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MCMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MCMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021	1	11,463	7,467	170	10,950	7,133	148	53.03	2.83
2022	1	25,215	17,745	403	23,815	16,759	346	53.03	2.83
2023	1	15,633	12,421	282	15,633	12,421	257	53.03	2.83
2024	1	9,693	8,695	198	9,693	8,695	180	53.03	2.83
2025	1	6,009	6,086	138	6,009	6,086	126	53.03	2.83
2026	1	3,726	4,260	97	3,726	4,261	88	53.03	2.83
2027	1	2,310	2,983	68	2,310	2,982	62	53.03	2.83
2028	1	1,433	2,087	47	1,432	2,088	43	53.03	2.83
2029	1	888	1,462	33	888	1,461	30	53.03	2.83
2030	1	550	1,022	24	551	1,023	21	53.03	2.83
2031	1	342	716	16	341	716	15	53.03	2.83
2032	1	211	502	11	206	487	10	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		77,473	65,446	1,487	75,554	64,112	1,326	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		77,473	65,446	1,487	75,554	64,112	1,326	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 9.00 %				
Ultimate		77,473	65,446	1,487					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	581	231	418	0	1,230	17	26	1,187
2022	1,263	544	980	0	2,787	40	61	2,686
2023	829	403	727	0	1,959	30	45	1,884
2024	514	282	509	0	1,305	22	32	1,251
2025	318	198	357	0	873	15	22	836
2026	198	138	249	0	585	9	16	560
2027	122	96	174	0	392	5	11	376
2028	76	68	123	0	267	3	8	256
2029	47	48	85	0	180	2	5	173
2030	30	33	60	0	123	1	4	118
2031	18	23	42	0	83	1	2	80
2032	11	16	28	0	55	0	2	53
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	4,007	2,080	3,752	0	9,839	145	234	9,460
Remainder	0	0	0	0	0	0	0	0
Total Future	4,007	2,080	3,752	0	9,839	145	234	9,460

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	40	0	40	-40	-40	-38
2021	264	0	620	117	1,001	186	146	139
2022	629	0	40	270	939	1,747	1,893	1,369
2023	317	0	35	194	546	1,338	3,231	946
2024	170	0	22	133	325	926	4,157	594
2025	112	0	22	92	226	610	4,767	354
2026	69	0	9	62	140	420	5,187	220
2027	54	0	12	43	109	267	5,454	128
2028	42	0	9	30	81	175	5,629	76
2029	33	0	9	21	63	110	5,739	43
2030	26	0	6	14	46	72	5,811	25
2031	22	0	9	10	41	39	5,850	13
2032	17	0	6	6	29	24	5,874	6
2033	0	0	200	0	200	-200	5,674	-52
2034	0	0	0	0	0	0	5,674	0
Sub-Total	1,755	0	1,039	992	3,786	5,674		3,823
Remainder	0	0	0	0	0	0	5,674	0
Total Future	1,755	0	1,039	992	3,786	5,674		3,823



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 220 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	8,416
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	8,219
REMARKS								15.00% -	7,938
								20.00% -	7,506
								25.00% -	7,117

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	73,026	46,885	1,066	69,567	44,664	914	53.03	2.83
2021	1	35,783	23,443	532	34,091	22,335	456	53.03	2.83
2022	1	17,534	11,721	267	17,534	11,721	240	53.03	2.83
2023	1	8,592	5,861	133	8,592	5,861	120	53.03	2.83
2024	1	4,209	2,930	67	4,209	2,930	60	53.03	2.83
2025	1	2,063	1,465	33	2,063	1,465	30	53.03	2.83
2026	1	1,011	733	16	1,011	733	15	53.03	2.83
2027	1	495	366	9	495	366	7	53.03	2.83
2028	1	243	183	4	243	183	4	53.03	2.83
2029	1	119	92	2	119	92	2	53.03	2.83
2030	1	58	15	0	58	15	0	53.03	2.83
2031	1	29	0	0	29	0	0	53.03	0.00
2032	1	10	0	0	10	0	0	53.03	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		143,172	93,694	2,129	138,021	90,365	1,848	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		143,172	93,694	2,129	138,021	90,365	1,848	53.03	2.83
Cumulative		2,161,622	0	19,601	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		2,304,794	93,694	21,730					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	3,689	1,449	2,585	0	7,723	147	161	7,415
2021	1,808	724	1,293	0	3,825	65	81	3,679
2022	930	381	679	0	1,990	34	42	1,914
2023	455	190	339	0	984	16	22	946
2024	224	95	170	0	489	8	10	471
2025	109	47	85	0	241	4	5	232
2026	54	24	42	0	120	1	3	116
2027	26	12	21	0	59	1	1	57
2028	13	6	11	0	30	1	1	28
2029	6	3	5	0	14	0	0	14
2030	3	0	1	0	4	0	0	4
2031	2	0	0	0	2	0	0	2
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	7,319	2,931	5,231	0	15,481	277	326	14,878
Remainder	0	0	0	0	0	0	0	0
Total Future	7,319	2,931	5,231	0	15,481	277	326	14,878

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	1,484	0	389	730	2,603	4,812	4,812	4,612
2021	836	0	129	364	1,329	2,350	7,162	2,038
2022	379	0	116	189	684	1,230	8,392	963
2023	144	0	61	95	300	646	9,038	461
2024	61	0	21	47	129	342	9,380	219
2025	29	0	12	23	64	168	9,548	98
2026	14	0	3	12	29	87	9,635	45
2027	8	0	3	6	17	40	9,675	20
2028	4	0	1	2	7	21	9,696	9
2029	3	0	0	2	5	9	9,705	3
2030	1	0	1	0	2	2	9,707	1
2031	0	0	0	0	0	2	9,709	1
2032	0	0	0	0	0	0	9,709	0
2033	0	0	200	0	200	-200	9,509	-54
2034	0	0	0	0	0	0	9,509	0
Sub-Total	2,963	0	936	1,470	5,369	9,509		8,416
Remainder	0	0	0	0	0	0	9,509	0
Total Future	2,963	0	936	1,470	5,369	9,509		8,416



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 220 (NE BIYSKI)

OIL LEASE  
PROVED  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	9,478
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	8,474
REMARKS	PROPOSED RECOMPLETION IN AFONINSKI & COMMINGLE WITH BISKI							15.00%	7,190
								20.00%	5,518
								25.00%	4,280

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	8,457	6,280	143	8,457	6,280	128	53.03	2.83
2023	1	44,228	34,100	775	44,228	34,100	698	53.03	2.83
2024	1	34,808	28,675	651	34,808	28,675	586	53.03	2.83
2025	1	27,393	24,113	548	27,393	24,113	494	53.03	2.83
2026	1	21,559	20,276	461	21,559	20,276	414	53.03	2.83
2027	1	16,967	17,051	388	16,967	17,051	349	53.03	2.83
2028	1	13,352	14,338	326	13,352	14,338	293	53.03	2.83
2029	1	10,509	12,056	274	10,509	12,056	247	53.03	2.83
2030	1	8,270	10,138	230	8,270	10,138	207	53.03	2.83
2031	1	6,509	8,526	194	6,509	8,526	175	53.03	2.83
2032	1	5,123	7,169	163	4,997	6,993	143	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		197,175	182,722	4,153	197,049	182,546	3,734	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		197,175	182,722	4,153	197,049	182,546	3,734	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		197,175	182,722	4,153					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	448	204	364	0	1,016	16	23	977
2023	2,346	1,106	1,973	0	5,425	84	123	5,218
2024	1,846	930	1,660	0	4,436	65	104	4,267
2025	1,452	782	1,396	0	3,630	49	87	3,494
2026	1,144	658	1,174	0	2,976	37	73	2,866
2027	899	553	987	0	2,439	28	61	2,350
2028	709	465	830	0	2,004	21	52	1,931
2029	557	391	698	0	1,646	17	44	1,585
2030	438	329	587	0	1,354	13	36	1,305
2031	346	277	493	0	1,116	10	31	1,075
2032	264	227	405	0	896	8	26	862
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,449	5,922	10,567	0	26,938	348	660	25,930
Remainder	0	0	0	0	0	0	0	0
Total Future	10,449	5,922	10,567	0	26,938	348	660	25,930

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	177	0	600	99	876	101	101	66
2023	773	0	350	535	1,658	3,560	3,661	2,518
2024	544	0	195	444	1,183	3,084	6,745	1,974
2025	437	0	194	368	999	2,495	9,240	1,447
2026	345	0	75	306	726	2,140	11,380	1,122
2027	317	0	105	255	677	1,673	13,053	795
2028	306	0	70	211	587	1,344	14,397	578
2029	290	0	73	176	539	1,046	15,443	407
2030	284	0	43	147	474	831	16,274	293
2031	265	0	65	122	452	623	16,897	199
2032	271	0	38	100	409	453	17,350	131
2033	0	0	200	0	200	-200	17,150	-52
2034	0	0	0	0	0	0	17,150	0
Sub-Total	4,009	0	2,008	2,763	8,780	17,150		9,478
Remainder	0	0	0	0	0	0	17,150	0
Total Future	4,009	0	2,008	2,763	8,780	17,150		9,478



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 223 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	41,785
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	39,216
REMARKS								15.00%	35,853
								20.00%	31,286
								25.00%	27,694

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	148,113	111,842	2,542	141,096	106,544	2,179	53.03	2.83
2021	1	118,490	95,065	2,160	112,889	90,571	1,853	53.03	2.83
2022	1	94,792	80,806	1,837	94,792	80,806	1,653	53.03	2.83
2023	1	75,834	68,685	1,561	75,834	68,684	1,405	53.03	2.83
2024	1	60,667	58,382	1,327	60,667	58,382	1,194	53.03	2.83
2025	1	48,533	49,625	1,128	48,533	49,625	1,015	53.03	2.83
2026	1	38,827	42,181	958	38,827	42,181	863	53.03	2.83
2027	1	31,062	35,854	815	31,062	35,854	733	53.03	2.83
2028	1	24,849	30,475	693	24,849	30,476	623	53.03	2.83
2029	1	19,879	25,905	589	19,879	25,904	530	53.03	2.83
2030	1	15,904	22,019	500	15,904	22,019	451	53.03	2.83
2031	1	12,722	18,716	425	12,723	18,716	382	53.03	2.83
2032	1	10,179	15,908	362	9,928	15,518	318	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		699,851	655,463	14,897	686,983	645,280	13,199	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		699,851	655,463	14,897	686,983	645,280	13,199	53.03	2.83
Cumulative		1,345,436	0	14,484	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		2,045,287	655,463	29,381					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	7,482	3,456	6,167	0	17,105	299	385	16,421
2021	5,987	2,938	5,243	0	14,168	216	327	13,625
2022	5,027	2,622	4,678	0	12,327	180	292	11,855
2023	4,021	2,228	3,976	0	10,225	144	248	9,833
2024	3,217	1,894	3,379	0	8,490	113	211	8,166
2025	2,574	1,610	2,873	0	7,057	87	180	6,790
2026	2,059	1,368	2,442	0	5,869	66	152	5,651
2027	1,647	1,163	2,075	0	4,885	51	129	4,705
2028	1,318	989	1,764	0	4,071	40	111	3,920
2029	1,054	840	1,500	0	3,394	31	93	3,270
2030	844	714	1,274	0	2,832	26	80	2,726
2031	674	607	1,084	0	2,365	20	67	2,278
2032	527	504	898	0	1,929	16	56	1,857
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	36,431	20,933	37,353	0	94,717	1,289	2,331	91,097
Remainder	0	0	0	0	0	0	0	0
Total Future	36,431	20,933	37,353	0	94,717	1,289	2,331	91,097

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	3,297	0	892	1,679	5,868	10,553	10,553	10,071	
2021	3,074	0	495	1,409	4,978	8,647	19,200	7,463	
2022	2,307	0	745	1,242	4,294	7,561	26,761	5,904	
2023	1,449	0	658	1,044	3,151	6,682	33,443	4,725	
2024	1,037	0	372	877	2,286	5,880	39,323	3,764	
2025	846	0	375	738	1,959	4,831	44,154	2,799	
2026	678	0	148	622	1,448	4,203	48,357	2,205	
2027	633	0	209	523	1,365	3,340	51,697	1,587	
2028	619	0	143	441	1,203	2,717	54,414	1,169	
2029	597	0	151	371	1,119	2,151	56,565	837	
2030	592	0	88	313	993	1,733	58,298	611	
2031	560	0	139	265	964	1,314	59,612	420	
2032	581	0	81	217	879	978	60,590	282	
2033	0	0	200	0	200	-200	60,390	-52	
2034	0	0	0	0	0	0	60,390	0	
Sub-Total	16,270	0	4,696	9,741	30,707	60,390		41,785	
Remainder	0	0	0	0	0	0	60,390	0	
Total Future	16,270	0	4,696	9,741	30,707	60,390		41,785	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 222 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	2,852
FINAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	12.00% -	2,803
REMARKS								15.00% -	2,730
								20.00% -	2,612
								25.00% -	2,501

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF (A)	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	35,725	12,511	284	34,033	11,918	244	53.03	2.83
2021	1	15,362	5,629	128	14,635	5,363	109	53.03	2.83
2022	1	6,605	2,534	58	6,606	2,534	52	53.03	2.83
2023	1	2,840	1,140	26	2,840	1,140	24	53.03	2.83
2024	1	1,222	513	11	1,221	513	10	53.03	2.83
2025	1	525	231	6	525	231	5	53.03	2.83
2026	1	226	103	2	226	104	2	53.03	2.83
2027	1	97	19	0	97	19	0	53.03	2.83
2028	1	42	0	0	42	0	0	53.03	0.00
2029	1	17	0	0	17	0	0	53.03	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		62,661	22,680	515	60,242	21,822	446	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		62,661	22,680	515	60,242	21,822	446	53.03	2.83
Cumulative		1,387,974	0	10,530	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		1,450,635	22,680	11,045					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,805	387	690	0	2,882	72	43	2,767
2021	776	174	310	0	1,260	28	19	1,213
2022	350	82	147	0	579	13	10	556
2023	151	37	66	0	254	5	4	245
2024	65	16	30	0	111	2	2	107
2025	27	8	13	0	48	1	0	47
2026	12	3	6	0	21	1	1	19
2027	6	1	1	0	8	0	0	8
2028	2	0	0	0	2	0	0	2
2029	1	0	0	0	1	0	0	1
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	3,195	708	1,263	0	5,166	122	79	4,965
Remainder	0	0	0	0	0	0	0	0
Total Future	3,195	708	1,263	0	5,166	122	79	4,965

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	561	0	145	234	940	1,827	1,827	1,751
2021	280	0	43	104	427	786	2,613	684
2022	112	0	34	48	194	362	2,975	285
2023	38	0	16	21	75	170	3,145	120
2024	14	0	4	10	28	79	3,224	51
2025	6	0	3	4	13	34	3,258	20
2026	3	0	0	2	5	14	3,272	8
2027	1	0	1	0	2	6	3,278	2
2028	0	0	0	0	0	2	3,280	1
2029	0	0	0	0	0	1	3,281	0
2030	0	0	200	0	200	-200	3,081	-70
2031	0	0	0	0	0	0	3,081	0
2032	0	0	0	0	0	0	3,081	0
2033	0	0	0	0	0	0	3,081	0
2034	0	0	0	0	0	0	3,081	0
Sub-Total	1,015	0	446	423	1,884	3,081		2,852
Remainder	0	0	0	0	0	0	3,081	0
Total Future	1,015	0	446	423	1,884	3,081		2,852





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 222 (NE BIYSKI)

GAS LEASE  
PROBABLE  
BEHIND PIPE

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	0.944463	0.944463	0.944463	53.03	32.44	2.83	10.00%	9,569
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	8,607
REMARKS	PROPOSED RECOMPLETION IN AFONINSKI & COMMINGLE WITH BISKI							15.00%	7,369
								20.00%	5,739
								25.00%	4,513

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	39,103	29,664	674	36,931	28,016	573	53.03	2.83
2023	1	37,700	30,380	691	37,701	30,380	621	53.03	2.83
2024	1	29,671	25,546	580	29,670	25,547	523	53.03	2.83
2025	1	23,350	21,482	488	23,351	21,482	439	53.03	2.83
2026	1	18,377	18,064	411	18,377	18,064	370	53.03	2.83
2027	1	14,463	15,191	345	14,462	15,190	311	53.03	2.83
2028	1	11,382	12,773	291	11,382	12,774	261	53.03	2.83
2029	1	8,958	10,741	244	8,958	10,741	220	53.03	2.83
2030	1	7,049	9,032	205	7,050	9,032	184	53.03	2.83
2031	1	5,548	7,596	173	5,548	7,595	156	53.03	2.83
2032	1	4,367	6,387	145	4,245	6,210	127	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		199,968	186,856	4,247	197,675	185,031	3,785	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		199,968	186,856	4,247	197,675	185,031	3,785	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		199,968	186,856	4,247					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	1,958	909	1,622	0	4,489	61	101	4,327
2023	2,000	985	1,758	0	4,743	72	110	4,561
2024	1,573	829	1,479	0	3,881	68	92	3,721
2025	1,238	697	1,244	0	3,179	58	79	3,042
2026	975	586	1,045	0	2,606	46	67	2,493
2027	767	493	880	0	2,140	33	55	2,052
2028	603	414	739	0	1,756	23	46	1,687
2029	476	349	622	0	1,447	17	39	1,391
2030	373	293	523	0	1,189	13	32	1,144
2031	295	246	439	0	980	10	28	942
2032	225	201	360	0	786	7	22	757
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	10,483	6,002	10,711	0	27,196	408	671	26,117
Remainder	0	0	0	0	0	0	0	0
Total Future	10,483	6,002	10,711	0	27,196	408	671	26,117

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	118	0	118	-118	-118	-112
2021	0	0	60	0	60	-60	-178	-52
2022	1,020	0	1,117	441	2,578	1,749	1,571	1,312
2023	761	0	105	472	1,338	3,223	4,794	2,277
2024	505	0	65	392	962	2,759	7,553	1,767
2025	412	0	65	326	803	2,239	9,792	1,298
2026	309	0	26	270	605	1,888	11,680	990
2027	293	0	36	225	554	1,498	13,178	711
2028	280	0	26	187	493	1,194	14,372	514
2029	271	0	27	156	454	937	15,309	365
2030	259	0	17	130	406	738	16,047	260
2031	255	0	28	108	391	551	16,598	176
2032	252	0	17	88	357	400	16,998	115
2033	0	0	200	0	200	-200	16,798	-52
2034	0	0	0	0	0	0	16,798	0
Sub-Total	4,617	0	1,907	2,795	9,319	16,798		9,569
Remainder	0	0	0	0	0	0	16,798	0
Total Future	4,617	0	1,907	2,795	9,319	16,798		9,569



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 201 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	13,561
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	13,032
REMARKS								15.00% -	12,311
								20.00% -	11,272
								25.00% -	10,396

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	71,393	62,241	1,415	68,011	59,292	1,213	53.03	2.83
2021	1	39,267	44,813	1,018	37,410	42,695	873	53.03	2.83
2022	1	21,596	32,265	733	21,597	32,265	660	53.03	2.83
2023	1	11,878	23,231	528	11,878	23,231	475	53.03	2.83
2024	1	6,533	16,727	380	6,533	16,727	342	53.03	2.83
2025	1	3,593	12,043	274	3,593	12,043	247	53.03	2.83
2026	1	1,977	8,671	197	1,976	8,671	177	53.03	2.83
2027	1	1,086	6,243	142	1,087	6,243	128	53.03	2.83
2028	1	598	4,495	102	598	4,495	92	53.03	2.83
2029	1	329	3,236	74	329	3,236	66	53.03	2.83
2030	1	181	2,331	53	181	2,331	48	53.03	2.83
2031	1	99	1,677	38	99	1,677	34	53.03	2.83
2032	1	55	1,208	27	53	1,179	24	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		158,585	219,181	4,981	153,345	214,085	4,379	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		158,585	219,181	4,981	153,345	214,085	4,379	53.03	2.83
Cumulative		200,208	0	2,815	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		358,793	219,181	7,796	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	3,607	1,923	3,432	0	8,962	144	214	8,604
2021	1,983	1,385	2,472	0	5,840	72	154	5,614
2022	1,146	1,047	1,867	0	4,060	41	117	3,902
2023	630	754	1,345	0	2,729	22	84	2,623
2024	346	542	968	0	1,856	12	60	1,784
2025	191	391	698	0	1,280	7	44	1,229
2026	104	281	501	0	886	3	31	852
2027	58	203	362	0	623	2	23	598
2028	32	146	260	0	438	1	16	421
2029	17	105	187	0	309	0	12	297
2030	10	75	135	0	220	1	8	211
2031	5	55	97	0	157	0	6	151
2032	3	38	69	0	110	0	5	105
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	8,132	6,945	12,393	0	27,470	305	774	26,391
Remainder	0	0	0	0	0	0	0	0
Total Future	8,132	6,945	12,393	0	27,470	305	774	26,391

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	1,715	0	458	907	3,080	5,524	5,524	5,283
2021	1,257	0	198	625	2,080	3,534	9,058	3,057
2022	753	0	239	454	1,446	2,456	11,514	1,921
2023	383	0	170	318	871	1,752	13,266	1,241
2024	223	0	78	224	525	1,259	14,525	807
2025	150	0	66	159	375	854	15,379	496
2026	100	0	22	112	234	618	15,997	326
2027	78	0	25	80	183	415	16,412	197
2028	64	0	15	57	136	285	16,697	122
2029	53	0	13	41	107	190	16,887	74
2030	44	0	7	30	81	130	17,017	47
2031	36	0	8	21	65	86	17,103	27
2032	32	0	5	14	51	54	17,157	15
2033	0	0	200	0	200	-200	16,957	-52
2034	0	0	0	0	0	0	16,957	0
Sub-Total	4,888	0	1,504	3,042	9,434	16,957		13,561
Remainder	0	0	0	0	0	0	16,957	0
Total Future	4,888	0	1,504	3,042	9,434	16,957		13,561



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 230 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00% -	43,260
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00% -	40,638
REMARKS								15.00% -	37,207
								20.00% -	32,551
								25.00% -	28,889

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	154,957	124,355	2,826	147,617	118,464	2,423	53.03	2.83
2021	1	110,795	108,188	2,459	105,557	103,073	2,108	53.03	2.83
2022	1	79,218	94,124	2,139	79,218	94,124	1,926	53.03	2.83
2023	1	56,641	81,888	1,861	56,641	81,888	1,675	53.03	2.83
2024	1	40,498	71,242	1,619	40,498	71,243	1,457	53.03	2.83
2025	1	28,957	61,981	1,409	28,956	61,981	1,268	53.03	2.83
2026	1	20,703	53,924	1,226	20,704	53,923	1,103	53.03	2.83
2027	1	14,804	46,913	1,066	14,803	46,913	959	53.03	2.83
2028	1	10,584	40,815	927	10,584	40,815	835	53.03	2.83
2029	1	7,568	35,508	808	7,568	35,509	726	53.03	2.83
2030	1	5,411	30,893	702	5,411	30,892	632	53.03	2.83
2031	1	3,868	26,876	610	3,869	26,877	550	53.03	2.83
2032	1	2,767	23,383	532	2,698	22,808	467	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		536,771	800,090	18,184	524,124	788,510	16,129	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		536,771	800,090	18,184	524,124	788,510	16,129	53.03	2.83
Cumulative		975,596	0	12,268	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		1,512,367	800,090	30,452					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	7,828	3,843	6,857	0	18,528	312	428	17,788
2021	5,598	3,344	5,967	0	14,909	202	372	14,335
2022	4,201	3,053	5,448	0	12,702	151	341	12,210
2023	3,003	2,656	4,741	0	10,400	107	295	9,998
2024	2,148	2,312	4,124	0	8,584	76	258	8,250
2025	1,536	2,010	3,587	0	7,133	52	224	6,857
2026	1,097	1,750	3,122	0	5,969	35	195	5,739
2027	786	1,521	2,716	0	5,023	25	169	4,829
2028	561	1,324	2,362	0	4,247	16	148	4,083
2029	401	1,152	2,056	0	3,609	12	128	3,469
2030	287	1,002	1,788	0	3,077	9	111	2,957
2031	205	872	1,556	0	2,633	6	98	2,529
2032	143	740	1,320	0	2,203	5	82	2,116
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	27,794	25,579	45,644	0	99,017	1,008	2,849	95,160
Remainder	0	0	0	0	0	0	0	0
Total Future	27,794	25,579	45,644	0	99,017	1,008	2,849	95,160

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	3,564	0	963	1,843	6,370	11,418	11,418	10,899
2021	3,219	0	517	1,545	5,281	9,054	20,472	7,816
2022	2,358	0	760	1,368	4,486	7,724	28,196	6,034
2023	1,458	0	661	1,159	3,278	6,720	34,916	4,752
2024	1,034	0	370	985	2,389	5,861	40,777	3,751
2025	841	0	373	842	2,056	4,801	45,578	2,784
2026	676	0	148	721	1,545	4,194	49,772	2,199
2027	637	0	210	619	1,466	3,363	53,135	1,598
2028	633	0	147	532	1,312	2,771	55,906	1,192
2029	619	0	156	459	1,234	2,235	58,141	869
2030	628	0	94	397	1,119	1,838	59,979	648
2031	609	0	151	343	1,103	1,426	61,405	456
2032	648	0	90	289	1,027	1,089	62,494	314
2033	0	0	200	0	200	-200	62,294	-52
2034	0	0	0	0	0	0	62,294	0
Sub-Total	16,924	0	4,840	11,102	32,866	62,294		43,260
Remainder	0	0	0	0	0	0	62,294	0
Total Future	16,924	0	4,840	11,102	32,866	62,294		43,260



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 231 (NE BIYSKI)

GAS LEASE  
PROVED  
PRODUCING

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	0.952629	0.952629	0.952629	53.03	32.44	2.83	10.00%	51,868
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	48,537
REMARKS								15.00%	44,195
								20.00%	38,341
								25.00%	33,776

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	197,813	117,517	2,671	188,443	111,951	2,290	53.03	2.83
2021	1	158,251	103,416	2,350	150,769	98,526	2,015	53.03	2.83
2022	1	126,601	91,005	2,069	126,601	91,005	1,862	53.03	2.83
2023	1	101,280	80,085	1,820	101,280	80,085	1,638	53.03	2.83
2024	1	81,025	70,475	1,601	81,025	70,475	1,441	53.03	2.83
2025	1	64,819	62,018	1,410	64,819	62,018	1,269	53.03	2.83
2026	1	51,856	54,575	1,240	51,856	54,575	1,116	53.03	2.83
2027	1	41,484	48,027	1,092	41,484	48,027	983	53.03	2.83
2028	1	33,188	42,263	960	33,188	42,263	864	53.03	2.83
2029	1	26,550	37,192	845	26,550	37,192	761	53.03	2.83
2030	1	21,240	32,729	744	21,240	32,729	669	53.03	2.83
2031	1	16,992	28,801	655	16,992	28,801	589	53.03	2.83
2032	1	13,594	25,345	576	13,260	24,723	506	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		934,693	793,448	18,033	917,507	782,370	16,003	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		934,693	793,448	18,033	917,507	782,370	16,003	53.03	2.83
Cumulative		202,839	0	2,639	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		1,137,532	793,448	20,672					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	9,993	3,632	6,480	0	20,105	399	404	19,302
2021	7,995	3,196	5,704	0	16,895	288	356	16,251
2022	6,714	2,952	5,268	0	14,934	241	329	14,364
2023	5,371	2,598	4,636	0	12,605	192	290	12,123
2024	4,297	2,286	4,079	0	10,662	151	254	10,257
2025	3,437	2,012	3,590	0	9,039	116	224	8,699
2026	2,750	1,771	3,159	0	7,680	89	198	7,393
2027	2,200	1,558	2,780	0	6,538	68	173	6,297
2028	1,760	1,371	2,447	0	5,578	53	153	5,372
2029	1,408	1,206	2,153	0	4,767	42	134	4,591
2030	1,126	1,062	1,894	0	4,082	34	118	3,930
2031	901	934	1,667	0	3,502	27	104	3,371
2032	703	802	1,432	0	2,937	21	90	2,826
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	48,655	25,380	45,289	0	119,324	1,721	2,827	114,776
Remainder	0	0	0	0	0	0	0	0
Total Future	48,655	25,380	45,289	0	119,324	1,721	2,827	114,776

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	3,900	0	1,056	1,866	6,822	12,480	12,480	11,907
2021	3,686	0	594	1,604	5,884	10,367	22,847	8,947
2022	2,806	0	908	1,449	5,163	9,201	32,048	7,185
2023	1,791	0	814	1,250	3,855	8,268	40,316	5,845
2024	1,306	0	468	1,079	2,853	7,404	47,720	4,738
2025	1,086	0	482	933	2,501	6,198	53,918	3,592
2026	888	0	195	808	1,891	5,502	59,420	2,886
2027	846	0	280	701	1,827	4,470	63,890	2,123
2028	849	0	196	608	1,653	3,719	67,609	1,600
2029	836	0	211	528	1,575	3,016	70,625	1,173
2030	852	0	127	459	1,438	2,492	73,117	878
2031	827	0	205	400	1,432	1,939	75,056	619
2032	882	0	123	340	1,345	1,481	76,537	428
2033	0	0	200	0	200	-200	76,337	-53
2034	0	0	0	0	0	0	76,337	0
Sub-Total	20,555	0	5,859	12,025	38,439	76,337		51,868
Remainder	0	0	0	0	0	0	76,337	0
Total Future	20,555	0	5,859	12,025	38,439	76,337		51,868



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 218\_1 (NE AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	47,564
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	42,393
REMARKS								15.00%	35,744
								20.00%	27,026
								25.00%	20,534

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023	1	385,448	99,081	2,252	385,448	99,081	2,027	53.03	2.83
2024	1	410,590	121,190	2,754	410,590	121,190	2,479	53.03	2.83
2025	1	270,990	94,709	2,153	270,990	94,709	1,937	53.03	2.83
2026	1	178,853	74,016	1,682	178,853	74,016	1,514	53.03	2.83
2027	1	118,044	57,843	1,314	118,044	57,843	1,183	53.03	2.83
2028	1	77,908	45,205	1,028	77,908	45,205	925	53.03	2.83
2029	1	51,420	35,327	803	51,420	35,327	722	53.03	2.83
2030	1	33,937	27,608	627	33,937	27,608	565	53.03	2.83
2031	1	22,398	21,576	491	22,398	21,576	441	53.03	2.83
2032	1	14,783	16,862	383	14,373	16,394	336	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		1,564,371	593,417	13,487	1,563,961	592,949	12,129	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		1,564,371	593,417	13,487	1,563,961	592,949	12,129	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		1,564,371	593,417	13,487	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	20,440	3,214	5,735	0	29,389	736	358	28,295
2024	21,774	3,932	7,016	0	32,722	938	438	31,346
2025	14,371	3,072	5,482	0	22,925	674	347	21,904
2026	9,484	2,401	4,285	0	16,170	446	274	15,450
2027	6,260	1,876	3,348	0	11,484	269	209	11,006
2028	4,131	1,467	2,617	0	8,215	157	163	7,895
2029	2,727	1,146	2,045	0	5,918	98	128	5,692
2030	1,800	896	1,598	0	4,294	63	99	4,132
2031	1,188	699	1,249	0	3,136	40	78	3,018
2032	762	532	949	0	2,243	25	60	2,158
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	82,937	19,235	34,324	0	136,496	3,446	2,154	130,896
Remainder	0	0	0	0	0	0	0	0
Total Future	82,937	19,235	34,324	0	136,496	3,446	2,154	130,896

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M			
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted @ 10.00 %	
						Annual	Cumulative		
2020	0	0	606	0	606	-606	-606	-574	
2021	0	0	310	0	310	-310	-916	-266	
2022	0	0	9,598	0	9,598	-9,598	-10,514	-7,168	
2023	4,619	0	539	2,207	7,365	20,930	10,416	14,541	
2024	4,372	0	335	2,544	7,251	24,095	34,511	15,442	
2025	3,039	0	333	1,862	5,234	16,670	51,181	9,672	
2026	1,955	0	131	1,372	3,458	11,992	63,173	6,301	
2027	1,598	0	187	1,017	2,802	8,204	71,377	3,903	
2028	1,329	0	132	758	2,219	5,676	77,053	2,444	
2029	1,121	0	142	568	1,831	3,861	80,914	1,504	
2030	945	0	87	428	1,460	2,672	83,586	943	
2031	820	0	142	325	1,287	1,731	85,317	553	
2032	723	0	87	239	1,049	1,109	86,426	321	
2033	0	0	200	0	200	-200	86,226	-52	
2034	0	0	0	0	0	0	86,226	0	
Sub-Total	20,521	0	12,829	11,320	44,670	86,226		47,564	
Remainder	0	0	0	0	0	0	86,226	0	
Total Future	20,521	0	12,829	11,320	44,670	86,226		47,564	



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE B/A LOW PRESS GATHERING SYSTE (NE BIYSKI/AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M	MONTHLY
INITIAL	1.000000	0.956012	0.956012	0.956012	53.03	32.44	2.83	10.00% -	25,731
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00% -	23,316
REMARKS								15.00% -	20,242
								20.00% -	16,252
								25.00% -	13,290

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020	1	38,143	24,642	986	36,465	23,558	848	53.03	2.83
2021	1	68,168	46,662	1,866	65,119	44,574	1,605	53.03	2.83
2022	1	58,619	43,372	1,735	55,363	40,964	1,474	53.03	2.83
2023	1	50,406	40,315	1,613	50,406	40,315	1,452	53.03	2.83
2024	1	43,344	37,472	1,499	43,344	37,472	1,349	53.03	2.83
2025	1	37,271	34,831	1,393	37,271	34,831	1,254	53.03	2.83
2026	1	32,050	32,375	1,295	32,050	32,375	1,165	53.03	2.83
2027	1	27,559	30,092	1,203	27,559	30,092	1,084	53.03	2.83
2028	1	23,699	27,971	1,119	23,699	27,971	1,006	53.03	2.83
2029	1	20,378	26,000	1,040	20,378	25,999	936	53.03	2.83
2030	1	17,524	24,166	967	17,524	24,167	870	53.03	2.83
2031	1	15,068	22,462	898	15,068	22,462	809	53.03	2.83
2032	1	12,957	20,879	836	12,598	20,300	731	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		445,186	411,239	16,450	436,844	405,080	14,583	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		445,186	411,239	16,450	436,844	405,080	14,583	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		445,186	411,239	16,450					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	1,934	764	2,400	0	5,098	58	127	4,913
2021	3,453	1,446	4,541	0	9,440	104	239	9,097
2022	2,936	1,329	4,174	0	8,439	92	220	8,127
2023	2,673	1,308	4,107	0	8,088	96	217	7,775
2024	2,298	1,215	3,818	0	7,331	99	201	7,031
2025	1,977	1,130	3,548	0	6,655	92	190	6,373
2026	1,700	1,051	3,299	0	6,050	80	178	5,792
2027	1,461	976	3,065	0	5,502	63	162	5,277
2028	1,257	907	2,850	0	5,014	48	150	4,816
2029	1,080	844	2,649	0	4,573	39	140	4,394
2030	930	784	2,462	0	4,176	32	129	4,015
2031	799	728	2,288	0	3,815	27	121	3,667
2032	668	659	2,069	0	3,396	22	109	3,265
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	23,166	13,141	41,270	0	77,577	852	2,183	74,542
Remainder	0	0	0	0	0	0	0	0
Total Future	23,166	13,141	41,270	0	77,577	852	2,183	74,542

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	@ 10.00 %
2020	1,420	0	313	531	2,264	2,649	2,649	2,446
2021	2,001	0	4,961	995	7,957	1,140	3,789	940
2022	1,874	0	309	903	3,086	5,041	8,830	3,934
2023	1,281	0	279	878	2,438	5,337	14,167	3,770
2024	942	0	173	808	1,923	5,108	19,275	3,267
2025	853	0	172	743	1,768	4,605	23,880	2,666
2026	712	0	68	683	1,463	4,329	28,209	2,269
2027	747	0	97	630	1,474	3,803	32,012	1,806
2028	793	0	67	581	1,441	3,375	35,387	1,450
2029	847	0	74	536	1,457	2,937	38,324	1,142
2030	902	0	45	494	1,441	2,574	40,898	906
2031	982	0	74	456	1,512	2,155	43,053	688
2032	1,079	0	44	410	1,533	1,732	44,785	499
2033	0	0	200	0	200	-200	44,585	-52
2034	0	0	0	0	0	0	44,585	0
Sub-Total	14,433	0	6,876	8,648	29,957	44,585		25,731
Remainder	0	0	0	0	0	0	44,585	0
Total Future	14,433	0	6,876	8,648	29,957	44,585		25,731



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
NE WELL 238 (NE AFONINSKI)

GAS LEASE  
PROVED  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	26,238
FINAL	1.000000	0.975449	0.975449	0.975449	53.03	32.44	2.83	12.00%	23,477
REMARKS								15.00%	19,914
								20.00%	15,212
								25.00%	11,675

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas(A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022	1	130,329	97,527	2,217	130,329	97,527	1,995	53.03	2.83
2023	1	145,977	119,804	2,722	145,977	119,804	2,450	53.03	2.83
2024	1	102,462	94,118	2,139	102,462	94,118	1,926	53.03	2.83
2025	1	71,918	73,939	1,681	71,918	73,939	1,512	53.03	2.83
2026	1	50,479	58,087	1,320	50,479	58,087	1,188	53.03	2.83
2027	1	35,431	45,633	1,037	35,431	45,633	933	53.03	2.83
2028	1	24,869	35,849	815	24,869	35,849	734	53.03	2.83
2029	1	17,456	28,163	640	17,456	28,163	576	53.03	2.83
2030	1	12,252	22,125	503	12,252	22,125	452	53.03	2.83
2031	1	8,600	17,381	395	8,600	17,381	356	53.03	2.83
2032	1	6,036	13,655	310	5,888	13,320	272	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		605,809	606,281	13,779	605,661	605,946	12,394	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		605,809	606,281	13,779	605,661	605,946	12,394	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		605,809	606,281	13,779	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	6,911	3,164	5,646	0	15,721	248	352	15,121
2023	7,742	3,886	6,935	0	18,563	276	433	17,854
2024	5,433	3,053	5,448	0	13,934	191	340	13,403
2025	3,814	2,399	4,280	0	10,493	129	267	10,097
2026	2,677	1,884	3,362	0	7,923	87	210	7,626
2027	1,879	1,481	2,642	0	6,002	58	165	5,779
2028	1,319	1,163	2,075	0	4,557	39	130	4,388
2029	925	913	1,630	0	3,468	28	101	3,339
2030	650	718	1,281	0	2,649	20	80	2,549
2031	456	564	1,006	0	2,026	13	63	1,950
2032	312	432	771	0	1,515	10	48	1,457
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	32,118	19,657	35,076	0	86,851	1,099	2,189	83,563
Remainder	0	0	0	0	0	0	0	0
Total Future	32,118	19,657	35,076	0	86,851	1,099	2,189	83,563

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	2,719	0	11,396	1,540	15,655	-534	-534	-901
2023	2,647	0	1,189	1,855	5,691	12,163	11,629	8,605
2024	1,708	0	607	1,426	3,741	9,662	21,291	6,192
2025	1,259	0	555	1,099	2,913	7,184	28,475	4,166
2026	912	0	198	848	1,958	5,668	34,143	2,977
2027	774	0	255	656	1,685	4,094	38,237	1,947
2028	689	0	158	507	1,354	3,034	41,271	1,305
2029	606	0	153	394	1,153	2,186	43,457	853
2030	550	0	81	305	936	1,613	45,070	568
2031	475	0	118	237	830	1,120	46,190	358
2032	453	0	62	180	695	762	46,952	220
2033	0	0	200	0	200	-200	46,752	-52
2034	0	0	0	0	0	0	46,752	0
Sub-Total	12,792	0	14,972	9,047	36,811	46,752		26,238
Remainder	0	0	0	0	0	0	46,752	0
Total Future	12,792	0	14,972	9,047	36,811	46,752		26,238



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NW WELL 27\_1 (NW AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED	
	EXPENSE INTEREST	Oil/Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	FUTURE NET INCOME - \$M COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	26,028
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	22,332
REMARKS								15.00%	17,765
								20.00%	12,148
								25.00%	8,303

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas (A) MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	50,775	26,293	598	50,775	26,293	538	53.03	2.83
2025	1	252,255	136,832	3,109	252,255	136,832	2,799	53.03	2.83
2026	1	181,144	106,756	2,427	181,144	106,756	2,183	53.03	2.83
2027	1	130,080	83,292	1,893	130,080	83,292	1,704	53.03	2.83
2028	1	93,410	64,983	1,477	93,410	64,983	1,329	53.03	2.83
2029	1	67,078	50,701	1,152	67,078	50,701	1,037	53.03	2.83
2030	1	48,168	39,556	899	48,168	39,556	809	53.03	2.83
2031	1	34,590	30,862	701	34,590	30,862	632	53.03	2.83
2032	1	24,839	24,079	547	24,151	23,412	479	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		882,339	563,354	12,803	881,651	562,687	11,510	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		882,339	563,354	12,803	881,651	562,687	11,510	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES, SHRINKAGE FACTOR = 10.00 %				
Ultimate		882,339	563,354	12,803					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	2,693	853	1,522	0	5,068	116	95	4,857
2025	13,377	4,439	7,921	0	25,737	627	502	24,608
2026	9,606	3,463	6,179	0	19,248	452	394	18,402
2027	6,898	2,702	4,822	0	14,422	296	301	13,825
2028	4,953	2,108	3,762	0	10,823	188	235	10,400
2029	3,558	1,645	2,934	0	8,137	128	183	7,826
2030	2,554	1,283	2,290	0	6,127	90	143	5,894
2031	1,834	1,001	1,787	0	4,622	62	112	4,448
2032	1,281	760	1,355	0	3,396	41	84	3,271
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	46,754	18,254	32,572	0	97,580	2,000	2,049	93,531
Remainder	0	0	0	0	0	0	0	0
Total Future	46,754	18,254	32,572	0	97,580	2,000	2,049	93,531

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	398	0	398	-398	-398	-377
2021	0	0	204	0	204	-204	-602	-175
2022	0	0	392	0	392	-392	-994	-305
2023	0	0	354	0	354	-354	-1,348	-248
2024	589	0	10,120	455	11,164	-6,307	-7,655	-4,102
2025	3,377	0	219	2,336	5,932	18,676	11,021	10,830
2026	2,310	0	86	1,783	4,179	14,223	25,244	7,469
2027	1,995	0	123	1,363	3,481	10,344	35,588	4,917
2028	1,744	0	86	1,042	2,872	7,528	43,116	3,240
2029	1,538	0	94	799	2,431	5,395	48,511	2,102
2030	1,350	0	56	612	2,018	3,876	52,387	1,367
2031	1,212	0	94	471	1,777	2,671	55,058	853
2032	1,100	0	57	351	1,508	1,763	56,821	509
2033	0	0	200	0	200	-200	56,621	-52
2034	0	0	0	0	0	0	56,621	0
Sub-Total	15,215	0	12,483	9,212	36,910	56,621		26,028
Remainder	0	0	0	0	0	0	56,621	0
Total Future	15,215	0	12,483	9,212	36,910	56,621		26,028





ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NW WELL AF\_16 (NW AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

INITIAL FINAL REMARKS	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	25,358
	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	21,721
								15.00%	17,232
								20.00%	11,723
								25.00%	7,965

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	50,775	26,293	598	50,775	26,293	538	53.03	2.83
2025	1	252,255	136,832	3,109	252,255	136,832	2,799	53.03	2.83
2026	1	181,144	106,756	2,427	181,144	106,756	2,183	53.03	2.83
2027	1	130,080	83,292	1,893	130,080	83,292	1,704	53.03	2.83
2028	1	93,410	64,983	1,477	93,410	64,983	1,329	53.03	2.83
2029	1	67,078	50,701	1,152	67,078	50,701	1,037	53.03	2.83
2030	1	48,168	39,556	899	48,168	39,556	809	53.03	2.83
2031	1	34,590	30,862	701	34,590	30,862	632	53.03	2.83
2032	1	24,839	24,079	547	24,151	23,412	479	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		882,339	563,354	12,803	881,651	562,687	11,510	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		882,339	563,354	12,803	881,651	562,687	11,510	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		882,339	563,354	12,803	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	2,693	853	1,522	0	5,068	116	95	4,857
2025	13,377	4,439	7,921	0	25,737	627	502	24,608
2026	9,606	3,463	6,179	0	19,248	452	394	18,402
2027	6,898	2,702	4,822	0	14,422	296	301	13,825
2028	4,953	2,108	3,762	0	10,823	188	235	10,400
2029	3,558	1,645	2,934	0	8,137	128	183	7,826
2030	2,554	1,283	2,290	0	6,127	90	143	5,894
2031	1,834	1,001	1,787	0	4,622	62	112	4,448
2032	1,281	760	1,355	0	3,396	41	84	3,271
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	46,754	18,254	32,572	0	97,580	2,000	2,049	93,531
Remainder	0	0	0	0	0	0	0	0
Total Future	46,754	18,254	32,572	0	97,580	2,000	2,049	93,531

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted		Discounted
						Annual	Cumulative	@ 10.00 %
2020	0	0	391	0	391	-391	-391	-370
2021	0	0	199	0	199	-199	-590	-172
2022	0	0	386	0	386	-386	-976	-299
2023	0	0	347	0	347	-347	-1,323	-244
2024	589	0	11,216	455	12,260	-7,403	-8,726	-4,799
2025	3,377	0	214	2,336	5,927	18,681	9,955	10,833
2026	2,310	0	85	1,783	4,178	14,224	24,179	7,470
2027	1,995	0	121	1,363	3,479	10,346	34,525	4,918
2028	1,744	0	84	1,042	2,870	7,530	42,055	3,240
2029	1,538	0	92	799	2,429	5,397	47,452	2,103
2030	1,350	0	56	612	2,018	3,876	51,328	1,367
2031	1,212	0	92	471	1,775	2,673	54,001	854
2032	1,100	0	55	351	1,506	1,765	55,766	510
2033	0	0	200	0	200	-200	55,566	-53
2034	0	0	0	0	0	0	55,566	0
Sub-Total	15,215	0	13,538	9,212	37,965	55,566		25,358
Remainder	0	0	0	0	0	0	55,566	0
Total Future	15,215	0	13,538	9,212	37,965	55,566		25,358



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI - OPERATOR  
NW WELL BSAF\_15 (NW AFONINSKI)

GAS LEASE  
PROBABLE  
UNDEVELOPED

	REVENUE INTERESTS				PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
	EXPENSE INTEREST	Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000	1.000000	1.000000	1.000000	53.03	32.44	2.83	10.00%	26,817
FINAL	1.000000	0.972291	0.972291	0.972291	53.03	32.44	2.83	12.00%	23,152
REMARKS								15.00%	18,591
								20.00%	12,920
								25.00%	8,981

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas <sup>(A)</sup> MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024	1	166,104	87,457	1,988	166,104	87,457	1,789	53.03	2.83
2025	1	219,743	123,388	2,804	219,743	123,388	2,524	53.03	2.83
2026	1	157,798	96,267	2,188	157,798	96,267	1,969	53.03	2.83
2027	1	113,315	75,108	1,707	113,315	75,108	1,536	53.03	2.83
2028	1	81,371	58,600	1,332	81,371	58,600	1,199	53.03	2.83
2029	1	58,433	45,719	1,039	58,433	45,719	935	53.03	2.83
2030	1	41,961	35,670	810	41,961	35,670	730	53.03	2.83
2031	1	30,131	27,830	633	30,131	27,830	569	53.03	2.83
2032	1	21,638	21,712	493	21,039	21,111	432	53.03	2.83
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		890,494	571,751	12,994	889,895	571,150	11,683	53.03	2.83
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		890,494	571,751	12,994	889,895	571,150	11,683	53.03	2.83
Cumulative		0	0	0	(A) NET GAS VOLUMES ACCOUNT FOR SURFACE LOSSES,				
Ultimate		890,494	571,751	12,994	SHRINKAGE FACTOR = 10.00 %				

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	8,808	2,837	5,063	0	16,708	380	316	16,012
2025	11,653	4,003	7,142	0	22,798	546	452	21,800
2026	8,369	3,123	5,573	0	17,065	393	356	16,316
2027	6,009	2,436	4,347	0	12,792	258	271	12,263
2028	4,315	1,901	3,392	0	9,608	164	212	9,232
2029	3,098	1,483	2,647	0	7,228	112	165	6,951
2030	2,226	1,157	2,065	0	5,448	78	129	5,241
2031	1,597	903	1,611	0	4,111	54	101	3,956
2032	1,116	685	1,222	0	3,023	36	76	2,911
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	47,191	18,528	33,062	0	98,781	2,021	2,078	94,682
Remainder	0	0	0	0	0	0	0	0
Total Future	47,191	18,528	33,062	0	98,781	2,021	2,078	94,682

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Undiscounted Cumulative	Discounted @ 10.00 %
2020	0	0	398	0	398	-398	-398	-377
2021	0	0	204	0	204	-204	-602	-175
2022	0	0	392	0	392	-392	-994	-305
2023	0	0	354	0	354	-354	-1,348	-248
2024	2,166	0	11,221	1,506	14,893	1,119	-229	293
2025	2,988	0	218	2,087	5,293	16,507	16,278	9,571
2026	2,046	0	86	1,594	3,726	12,590	28,868	6,610
2027	1,769	0	123	1,218	3,110	9,153	38,021	4,352
2028	1,547	0	86	933	2,566	6,666	44,687	2,869
2029	1,365	0	94	715	2,174	4,777	49,464	1,861
2030	1,198	0	57	548	1,803	3,438	52,902	1,212
2031	1,078	0	93	422	1,593	2,363	55,265	755
2032	978	0	57	315	1,350	1,561	56,826	452
2033	0	0	200	0	200	-200	56,626	-53
2034	0	0	0	0	0	0	56,626	0
Sub-Total	15,135	0	13,583	9,338	38,056	56,626		26,817
Remainder	0	0	0	0	0	0	56,626	0
Total Future	15,135	0	13,583	9,338	38,056	56,626		26,817



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
PRODUCTION BONUS PAYMENT

OIL LEASE  
PROVED  
UNDEVELOPED

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000							10.00%	0
FINAL	1.000000							12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0



ZHAIKMUNAI LLP  
ESTIMATED FUTURE RESERVES AND INCOME  
ATTRIBUTABLE TO TERMS OF THE PRODUCTION SHARING AGREEMENT  
BETWEEN THE REPUBLIC OF KAZAKHSTAN AND ZHAIKMUNAI LLP  
AS OF JANUARY 1, 2020

CHINAREVSKOYE FIELD, WESTERN OBLAST, KAZAKHSTAN  
ZHAIKMUNAI – OPERATOR  
PRODUCTION BONUS PAYMENT

OIL LEASE  
PROBABLE  
UNDEVELOPED

	EXPENSE INTEREST	REVENUE INTERESTS			PRODUCT PRICES			DISCOUNTED FUTURE NET INCOME - \$M	
		Oil/ Condensate	Plant Products	Gas	Oil/Cond. \$/bbl.	Plt. Prod. \$/bbl.	Gas \$/MCF	COMPOUNDED	MONTHLY
INITIAL	1.000000							10.00%	0
FINAL	1.000000							12.00%	0
REMARKS								15.00%	0
								20.00%	0
								25.00%	0

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION			COMPANY NET SALES			AVERAGE PRICES	
		Oil/Cond. Barrels	Plant Products Barrels	Gas MMCF	Oil/Cond. Barrels	Plant Products Barrels	Sales Gas MMCF	Oil/Cond. \$/bbl.	Gas \$/MCF
2020		0	0	0	0	0	0	0.00	0.00
2021		0	0	0	0	0	0	0.00	0.00
2022		0	0	0	0	0	0	0.00	0.00
2023		0	0	0	0	0	0	0.00	0.00
2024		0	0	0	0	0	0	0.00	0.00
2025		0	0	0	0	0	0	0.00	0.00
2026		0	0	0	0	0	0	0.00	0.00
2027		0	0	0	0	0	0	0.00	0.00
2028		0	0	0	0	0	0	0.00	0.00
2029		0	0	0	0	0	0	0.00	0.00
2030		0	0	0	0	0	0	0.00	0.00
2031		0	0	0	0	0	0	0.00	0.00
2032		0	0	0	0	0	0	0.00	0.00
2033		0	0	0	0	0	0	0.00	0.00
2034		0	0	0	0	0	0	0.00	0.00
Sub-Total		0	0	0	0	0	0	0.00	0.00
Remainder		0	0	0	0	0	0	0.00	0.00
Total Future		0	0	0	0	0	0	0.00	0.00
Cumulative		0	0	0					
Ultimate		0	0	0					

Period	COMPANY FUTURE GROSS REVENUE (FGR) - \$M					ROYALTY		FGR AFTER ROYALTY \$M
	From Oil/Cond.	From Plant Products	From Gas	Other	Total	Oil/Cond. - \$M	Gas/P.P. - \$	
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0

Period	DEDUCTIONS - \$M					FUTURE NET INCOME BEFORE INCOME TAXES-\$M		
	Operating Costs	Other Taxes	Development Costs	Transportation	Total	Undiscounted Annual	Discounted Cumulative	Discounted @ 10.00 %
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0		0
Remainder	0	0	0	0	0	0	0	0
Total Future	0	0	0	0	0	0	0	0