

**FORM 51-101F1**

**STATEMENT OF RESERVES DATA  
AND OTHER OIL AND GAS INFORMATION**

This Statement of reserves data and other oil and gas information has been prepared in accordance with the requirements of NI 51-101.

Tethys Petroleum Limited (the "Company") engaged McDaniel & Associates Consultants Ltd. ("McDaniel") to independently evaluate the Company's oil and natural gas reserves in Kazakhstan.

McDaniel prepared an independent evaluation report ("McDaniel Reserves Report") of the Company's oil and natural gas reserves in respect of Kazakhstan. Relevant dates of the McDaniel Reserves Report are as follows:

Date of statement	April 25, 2022
Effective date of the information	December 31, 2021
Preparation date of the information	April 4, 2022

**Disclosure of Reserves Data**

***Kazakhstan***

The reserves data summarise the crude oil and natural gas reserves of the Company and the net present values of future net revenue for these reserves using forecast prices and costs. The reserves data set forth complies with the requirements of NI 51-101. The Company has included additional information not required by NI 51-101 which the Company believes to be pertinent to investors and to provide continuity with earlier disclosure. McDaniel was engaged by the Company to provide evaluations of proved, probable and possible crude oil and natural gas reserves.

In preparing the McDaniel Reserves Report, basic information was obtained from the Company, which included land data, well information, geological information, production data, estimates of on-stream dates, contract information, current hydrocarbon product prices, operating cost data, capital budget forecasts, financial data and future operating plans. Other engineering, geological or economic data required to conduct the evaluations and upon which the McDaniel Reserves Report are based was obtained from public records, other operators and from McDaniel non-confidential files. The extent and character of ownership and the accuracy of all factual data supplied for the independent evaluation, from all sources, was accepted by McDaniel as represented.

Estimated future net revenue based on the McDaniel Reserves Report is presented in USD (note: oil and gas sales and qualifying expenditure are subject to VAT at 12% in Kazakhstan; however, these are outside the scope of the NI 51-101 evaluation). All evaluations and reviews of future net cash flow are stated prior to any provision for interest costs or general and administrative costs (other than Kazakhstan-related general and administrative costs) and after the deduction of estimated future capital expenditures for wells to which reserves have been assigned. It should not be assumed that the estimated future net cash flow shown below is representative of the fair market value of the Company's properties. There is no assurance that such price and cost assumptions will be attained and variances could be material. The recovery and reserve estimates of crude oil and natural gas reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual crude oil and natural gas reserves may be greater than or less than the estimates provided herein.

Throughout the following summary tables differences may arise due to rounding.

**Summary of Oil and Natural Gas Reserves<sup>(1)</sup>**  
**As of December 31, 2021**  
**Forecast Prices and Costs**

Reserves Category	Light and Medium Crude Oil		Natural Gas		Total	
	Gross (Mbbl)	Net (Mbbl)	Gross (MMcf)	Net (MMcf)	Gross (MBoe)	Net (MBoe)
<b>KAZAKHSTAN</b>						
Proved						
Developed Producing	3,121	3,121	15,429	15,351	5,693	5,680
Developed Non-Producing	-	-	3,113	3,097	519	516
Undeveloped	35,677	35,677	-	-	35,677	35,677
<b>Total Proved</b>	<b>38,798</b>	<b>38,798</b>	<b>18,541</b>	<b>18,448</b>	<b>41,888</b>	<b>41,873</b>
Probable	35,797	35,797	9,951	9,902	37,455	37,447
<b>Total Proved Plus Probable</b>	<b>74,595</b>	<b>74,595</b>	<b>28,493</b>	<b>28,350</b>	<b>79,344</b>	<b>79,320</b>
Possible	46,680	46,680	4,587	4,564	47,445	47,441
<b>Total Proved Plus Probable Plus Possible</b>	<b>121,275</b>	<b>121,275</b>	<b>33,080</b>	<b>32,914</b>	<b>126,788</b>	<b>126,761</b>

**Notes:**

- (1) Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves.

**Summary of  
Net Present Values of Future Net Revenue  
As of December 31, 2021  
Forecast Prices and Costs**

Reserves Category	Before Income Taxes Discounted at (%/year)					After Income Taxes Discounted at (%/year)					Unit Value Before Income Taxes Discounted at 10%/year (\$/boe)
	0	5	10	15	20	0	5	10	15	20	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
<b>KAZAKHSTAN</b>											
<b>Proved</b>											
Developed Producing	119,104	112,070	106,032	100,780	96,159	65,183	60,918	57,311	54,214	51,520	18.67
Developed Non-Producing	9,311	8,238	7,369	6,655	6,061	9,311	8,238	7,369	6,655	6,061	14.28
Undeveloped	710,272	542,400	422,686	335,158	269,748	418,238	309,063	233,102	178,868	139,262	11.85
<b>Total Proved</b>	<b>838,688</b>	<b>662,708</b>	<b>536,087</b>	<b>442,593</b>	<b>371,968</b>	<b>492,732</b>	<b>378,219</b>	<b>297,781</b>	<b>239,737</b>	<b>196,843</b>	<b>12.80</b>
Probable	937,197	614,652	419,535	296,231	215,313	557,995	354,889	235,610	162,251	115,289	11.20
<b>Total Proved Plus Probable</b>	<b>1,775,885</b>	<b>1,277,360</b>	<b>955,623</b>	<b>738,823</b>	<b>587,281</b>	<b>1,050,727</b>	<b>733,107</b>	<b>533,391</b>	<b>401,988</b>	<b>312,132</b>	<b>12.05</b>
Possible	1,478,064	916,639	598,991	408,744	289,162	720,130	430,537	273,130	182,041	126,427	12.63
<b>Total Proved Plus Probable Plus Possible</b>	<b>3,253,948</b>	<b>2,193,999</b>	<b>1,554,614</b>	<b>1,147,567</b>	<b>876,442</b>	<b>1,770,857</b>	<b>1,163,644</b>	<b>806,521</b>	<b>584,030</b>	<b>438,559</b>	<b>12.26</b>

**Total Future Net Revenue  
(Undiscounted)  
As of December 31, 2021  
Forecast Prices and Costs<sup>(1)(2)</sup>**

Reserves Category	Revenue \$'000	Royalties \$'000	Export Rent Tax \$'000	Operating Costs \$'000	Development Costs \$'000	Abandonment and Reclamation Costs \$'000	Other Expenses \$'000	Future Net Revenue Before Income Taxes \$'000	Income Taxes \$'000	Future Net Revenue after Income Taxes \$'000
<b>KAZAKHSTAN</b>										
Total Proved	1,651,989	(110,052)	(184,959)	(310,786)	(165,887)	(10,553)	(31,065)	838,687	(345,955)	492,732
Total Proved Plus Probable	3,375,567	(268,753)	(446,270)	(592,241)	(243,787)	(14,803)	(33,829)	1,775,884	(725,157)	1,050,727
Total Proved Plus Probable Plus Possible	5,678,651	(490,401)	(588,665)	(976,239)	(313,787)	(18,053)	(37,558)	3,253,948	(1,483,091)	1,770,857
<b>TOTAL</b>										
Total Proved	1,651,989	(110,052)	(184,959)	(310,786)	(165,887)	(10,553)	(31,065)	838,687	(345,955)	492,732
Total Proved Plus Probable	3,375,567	(268,753)	(446,270)	(592,241)	(243,787)	(14,803)	(33,829)	1,775,884	(725,157)	1,050,727
Total Proved Plus Probable Plus Possible	5,678,651	(490,401)	(588,665)	(976,239)	(313,787)	(18,053)	(37,558)	3,253,948	(1,483,091)	1,770,857

**Notes:**

- (1) "Other expenses" refers to the repayment of historical costs.  
(2) "Royalties" include the Mineral Extraction Tax.

**Future Net Revenue  
By Production Group  
As of December 31, 2021  
Forecast Prices and Costs <sup>(1)</sup>**

Reserves Category	Future Net Revenue Before Income Taxes (discounted at 10%/year) \$'000	Unit Value \$/boe
<b>Light and Medium Crude Oil:</b>		
Total Proved	505,178	13.02
Total Proved + Probable	911,269	12.22
Total Proved + Probable + Possible	1,504,220	12.40
<b>Associated Gas and Non-Associated Gas:</b>		
Total Proved	30,910	10.05
Total Proved + Probable	44,354	9.39
Total Proved + Probable + Possible	50,394	9.19

**Notes:**

(1) See table below "Summary of Pricing and Inflation Rate Assumptions" for pricing assumptions.

**Summary of Pricing and Inflation Rate Assumptions  
As of December 31, 2021  
Forecast Prices and Costs**

	KAZAKHSTAN				
	Brent Crude Oil Price (\$/bbl)	Oil Export Crude Oil Price (\$/bbl)	Domestic Crude Oil Price (\$/bbl)	Natural Gas Domestic Gas Price (\$/Mcf)	Inflation rate %/year
<b>Forecast</b>					
2022	75.00	52.47	35.25	3.50	2.00%
2023	69.87	48.61	32.84	3.57	2.00%
2024	67.63	46.36	31.78	3.64	2.00%
2025	68.98	47.72	32.42	3.71	2.00%
2026	70.36	48.46	33.07	3.79	2.00%
2027	71.77	49.87	33.73	3.86	2.00%
2028	73.20	51.30	34.40	3.94	2.00%
2029	74.66	52.77	35.09	4.02	2.00%
2030	76.16	53.62	35.79	4.10	2.00%
2031	77.68	55.15	36.51	4.18	2.00%
2032	79.23	56.70	37.24	4.27	2.00%
2033	80.82	57.65	37.99	4.35	2.00%
2034	82.44	59.27	38.74	4.44	2.00%
2035	84.08	70.91	39.51	4.53	2.00%
2036	85.77	61.96	40.31	4.62	2.00%
2037	87.48	63.68	41.12	4.71	2.00%
2038	89.23	65.43	41.94	4.80	2.00%
2039	91.02	66.57	42.78	4.90	2.00%
2040	92.84	68.39	43.63	5.00	2.00%
2041	94.69	70.25	44.51	5.10	2.00%

## Reserves Reconciliation

### Kazakhstan

The following table sets forth a reconciliation of Tethys' total gross proved, probable and proved plus probable reserves as at December 31, 2021, against such reserves as at December 31, 2020, based on forecast prices and cost assumptions.

Factors	Light and Medium Crude Oil			Associated and Non-Associated Natural Gas		
	Gross Proved (Mbbl)	Gross Probable (Mbbl)	Gross Proved Plus Probable (Mbbl)	Gross Proved (MMcf)	Gross Probable (MMcf)	Gross Proved Plus Probable (MMcf)
<b>January 1, 2021</b>	<b>33,076</b>	<b>40,451</b>	<b>73,527</b>	<b>21,567</b>	<b>8,717</b>	<b>30,284</b>
Extensions and Improved Recovery	3,880	(3,880)	-	-	-	-
Technical Revisions	2,170	(774)	1,396	1,316	1,235	2,550
Discoveries	-	-	-	-	-	-
Acquisitions	-	-	-	-	-	-
Dispositions	-	-	-	-	-	-
Economic Factors	-	-	-	-	-	-
Production	(328)	-	(328)	(4,342)	-	(4,342)
<b>December 31, 2021</b>	<b>38,798</b>	<b>35,797</b>	<b>74,595</b>	<b>18,541</b>	<b>9,951</b>	<b>28,493</b>

## Additional Information Relating to Reserves Data

### Undeveloped Reserves

The following tables disclose the volumes of Proved and Probable Undeveloped Reserves as at the dates noted therein. The references to "First Attributed" refer to "Proved or Probable Undeveloped Reserves" as at the earliest date in the relevant year when such Undeveloped Reserves were first attributed to the Company. Undeveloped Reserves are those Reserves that are expected to be recovered from known accumulations where a significant expenditure is required to render them capable of production.

KAZAKHSTAN					
Proved Undeveloped	Associated and Non-Associated Gas(1)		Light and Medium Crude Oil		
	First Attributed (MMcf)	Total at Year End (MMcf)	First Attributed (Mbbl)	Total at Year End (Mbbl)	
Prior	18.7	18.7	4,155	4,155	
2017	-	6.2	-	4,156	
2018	-	5.3	-	3,960	
2019	-	0.6	-	2,048	
2020	-	-	31,028	33,076	
2021	-	-	2,601	35,677	

<b>Probable Undeveloped</b>	<b>First Attributed (MMcf)</b>	<b>Total at Year End (MMcf)</b>	<b>First Attributed (Mbbl)</b>	<b>Total at Year End (Mbbl)</b>
Prior	19.7	19.7	4,456	4,456
2017	-	12.8	419	5,062
2018	-	2.6	418	5,480
2019	17.1	19.7	2,697	8,177
2020	-	5.0	32,274	40,451
2021	-	2.4	-	35,797

**Note:**

(1) Based on the forecast prices and costs evaluations carried out by McDaniel and reflected in the McDaniel Reserves Report.

With respect to the Company's Undeveloped Reserves in Kazakhstan, the Company is currently developing its plans with regard to developing its Proved Undeveloped and Probable Undeveloped Reserves. For the shallow gas and the oil reserves, the Company plans further development from 2022 onwards.

***Significant Factors or Uncertainties***

*Kazakhstan*

There are numerous uncertainties inherent in estimating quantities of proved reserves, including many factors beyond the control of the Company. The reserve data included herein represent estimates only. In general, estimates of economically recoverable gas reserves and the future net cash flows therefrom are based upon a number of variable factors and assumptions, such as test rate production from the properties, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary considerably from actual results. The actual production, revenues, taxes and development and operating expenditures of the Company with respect to these reserves will vary from such estimates, and such variances could be material.

Estimates with respect to reserves that may be developed and produced in the future are often based upon volumetric calculations and upon analogy to similar types of reserves rather than actual production history. Estimates based on these methods are generally less reliable than those based on actual production history. Subsequent evaluation of the same reserves based upon production history will result in variations, which may be substantial, in the estimated reserves.

Consistent with the securities disclosure legislation and policies of Canada, the Company has used forecast prices and costs in calculating reserve quantities included herein. Actual future net cash flows will also be affected by other factors such as actual production levels, supply and demand for gas, curtailments or increases in consumption by gas purchasers, changes in governmental regulation or taxation, currency exchange rates and the impact of inflation on costs.

***Future Development Costs***

The following table sets forth the estimated future development capital expenditure costs based upon the McDaniel Reserves Report. Future development costs are expected to be funded by internally generated cash flow from production and/or through equity financing or debt issuance. Future



development costs are associated with reserves as disclosed in the McDaniel Reserves Report and do not necessarily represent the Company's full exploration and development budget.

Year	Total Proved Estimated Using Forecast Prices and Costs	Total Proved Plus Probable Estimated Using Forecast Prices and Costs	Total Proved Plus Probable Plus Possible Estimated Using Forecast Prices and Costs
	\$'000	\$'000	\$'000
<b>KAZAKHSTAN</b>			
2022	9,663	10,563	10,563
2023	56,474	56,474	56,474
2024	34,500	49,500	54,500
2025	32,500	42,500	50,500
2026	32,500	37,500	45,500
Thereafter	250	47,250	96,250
<b>Total</b>	<b>165,887</b>	<b>243,787</b>	<b>313,787</b>

## Other Oil and Gas Information

### *Oil and Gas Properties*

#### *Kazakhstan*

There are certain relinquishment requirements under the Kul-Bas Exploration and Production Contract.

### *Oil and Gas Wells*

The number of producing and non-producing wells in which the Company had an interest as of December 31, 2021 is presented in the table below. The number of net wells corresponds to the number of gross wells as the Company has a 100% working interest in each well, subject to revenue sharing and royalties under the relevant contracts.

Kazakhstan		Producing		Non-Producing <sup>(1)</sup>	
		Gross	Net	Gross	Net
Natural Gas	Kyzyloi Gas Field	8	8	-	-
Natural Gas	Akkulka Gas Field	13	13	-	-
Light and Medium Crude Oil	Kul-Bas Block (Klymene)	4	4	-	-
<b>Total</b>		<b>25</b>	<b>25</b>	<b>-</b>	<b>-</b>

#### Notes:

(1) "Non-Producing" wells means wells which are not producing but which are considered capable of production.

### *Properties with No Attributed Reserves*

There are no properties of the Company with no attributed reserves.

## **Forward Contracts**

### *Kazakhstan*

As of 31 December, 2021, there were no forward contracts.

## **Abandonment and Reclamation Costs**

The Company estimates well abandonment and reclamation costs area by area by taking into consideration the costs associated with remediation, decommissioning, abandonment and reclamation, as well as salvage values of existing equipment. These costs are adjusted to reflect working interests held and are time discounted in accordance with NI 51-101.

### *Kazakhstan*

The Company is responsible at the present time for costs associated with abandoning and reclaiming wells, processing facilities and pipelines which it may use for production of hydrocarbons. Abandonment and reclamation of such facilities and the costs associated therewith is often referred to as “decommissioning”. The Company pays 1% of its total annual investments into an abandonment fund and the costs of decommissioning are expected to be paid from these proceeds. Abandonment and reclamation costs were estimated for all legal obligations associated with the retirement of long lived tangible assets such as wells, facilities and plants based on market prices or on the best information available where no market price was available. The asset retirement obligation is recorded at fair value and accretion expense, recognised over the life of the property, increases the liability to its expected settlement value. If the fair value of the estimated asset retirement obligation changes, an adjustment is recorded for both the asset retirement obligation and the asset retirement cost. The Company’s asset retirement obligations consist of costs related to the plugging of wells, the removal of facilities and equipment and site restoration on oil and gas properties. The Company has estimated these costs to be an average of \$38,000 per well. An accretion cost is added each year in respect of asset retirement obligations. Accretion expense is calculated by multiplying the balance of the recorded liability by the Company’s credit-adjusted discount rate each year, and is simply the amortization of the present value discount associated with the asset retirement obligation’s initial recording.

The Company has recorded a provision for abandonment and reclamation costs, net of estimated salvage value, for surface leases, wells, facilities and pipelines, discounted at 9.7%, of \$2.2 million. This assumes that all wells will be remediated at the end of the current contract periods, i.e. by the end of 2029.

## **Tax Horizon**

### *Kazakhstan*

The tax system applied to the Company’s operations in subsoil activity in Kazakhstan is mainly based on a combination of corporate income tax, excess profit tax, Mineral Extraction Tax (“MET”) and property tax.

Capital equipment and wells are depreciated at various rates, and corporate income tax is applied at the rate of 20% on the taxable income. The Company expects to make corporate income tax payments in 2022.

Excess profit tax is applicable to income after corporate income tax, calculated using tax rates on a sliding scale ranging from 0% to 60% on income exceeding a tax allowable base. The Company expects to make excess profits tax payments in 2022.

MET ranges from 0.5% to 1.5% of the value of produced volumes of natural gas being sold to domestic market and at a rate of 10% of the value of produced gas volumes being sold for export. Currently, both Kyzylloi and Akkulka gas is sold on the domestic market and so is subject to the domestic sales rate of 0.5%.

MET for crude oil is differentiated not only by production volumes but also by whether sales are on the domestic or export markets. For domestic sales MET is calculated on operating costs, including depreciation, plus 20% at rates ranging from 2.5% for annual volumes of less than 250,000 tons up to 9% for annual volumes above 10,000 tone. For export sales MET is calculated on sales at double the rates for domestic sales.

Property tax is levied on certain immovable assets at a rate of 1.5%.

### **Costs Incurred**

Capital expenditures related to the Company's oil & gas properties for the year ended December 31, 2021 totalled \$15,491,000 (2020: \$9,515,000).

### **Exploration and Development Activities**

The Company plans to drill up to three further exploration wells in the Kul-bas Exploration Contract area in 2022, KBD-04, KBD-05 and KBD-09.

Two new shallow gas wells were drilled at the end of 2021, AKK-28 and AKK-29 and both successfully tested commercial quantities of gas. The required reporting and approval process for these new wells is expected to take 8-9 months after which these wells are expected to be added to production around September 2023.

The Company plans to conduct 900km of 2D seismic at a cost of up to \$1.7 million in 2022 and drill up to eight shallow gas wells to increase gas production, four in the Kyzylloi contract area and four in the Kul-bas contract area.

### **Production Estimates**

The following discloses the estimated production of the Company in 2022 by product type associated with the future net revenue estimates reported in the McDaniel Reserves Report.

	Natural Gas (MMcf)	Crude Oil (Mbbl)
<b>KAZAKHSTAN</b>		
Gross Proved	4.38	1,570
Gross Proved plus Probable	4.74	1,570

The following table sets forth the volume of production estimated in the McDaniel Reserves Report for the Kyzylloi and Akkulka Gas Fields and the Klymene Oil Field in Kazakhstan being fields that account for 100% of the estimated production disclosed under the above table, for the year ending December 31, 2022:

Reserves Category	Natural Gas (MMcf)	Light and Medium Crude Oil (Mbbbl)
<b>KAZAKHSTAN</b>		
<b>Kyzyloi</b>		
- Gross Proved	2.68	-
- Gross Proved plus Probable	3.00	-
<b>Akkulka</b>		
- Gross Proved	1.71	-
- Gross Proved plus Probable	1.74	-
<b>Kul-bas (Klymene) Oil</b>		
- Gross Proved	-	1,570
- Gross Proved plus Probable	-	1,570

### Production History

The following tables show the Company's average daily production volume (based on 365 day year), before deduction of royalties, by major producing region for each of the last four fiscal quarters and the year ended December 31, 2021.

	Natural Gas (Mcmpd)	Light and Medium Crude Oil (bopd)
<b>KAZAKHSTAN</b>		
Daily Production Volume (Gross Mcmpd for natural gas and gross bopd for oil)		
Year Ended December 31, 2021	323	887
Quarter ended March 31, 2021	339	91
Quarter ended June 30, 2021	328	-
Quarter ended September 30, 2021	310	100
Quarter ended December 31, 2021	316	3,329

	Natural Gas \$/Mcm	Light and Medium \$/bbl
<b>KAZAKHSTAN</b>		
Prices Received <sup>(1)</sup>	83.67	19.12
Royalties Paid	-	-
Production Costs <sup>(1)</sup>	15.72	3.64
Resulting Netback <sup>(1)</sup>	67.95	15.48

#### Notes:

(1) With respect to oil and gas, net of VAT.

### Production Volume by Field

The following table indicates the Company's total sales production for the year ended December 31, 2021 from each important field (before taxes, royalties and State take unless otherwise noted):

2021	Natural Gas (Mcm)	Light and Medium Crude Oil (bbl)	Barrels of Oil Equivalent (boe)	Boepd
<b>KAZAKHSTAN</b>				
Kyzyloi Gas Field	83,204	-	489,689	1,342
Akkulka Gas Field	34,740	-	204,464	560
Klymene Oil Field <sup>(1)</sup>	-	323,647	323,647	887
<b>Total</b>	<b>117,944</b>	<b>323,647</b>	<b>1,017,800</b>	<b>2,789</b>

#### Notes:

(1) Boepd is calculated on total days in year including non-production days, and also discounts the smaller volumes of gas used for power generation and a small volume of flared gas from the Klymene oil field