

5 November 2020

## Austrian Fields Independent Reserves Review

“Independent Audit confirms and exceeds ADX developed Reserves assessment at purchase”

### Key Points:

- 🔴 A Year-End 2019 developed Reserves audit has been completed for ADX Zistersdorf and Gaiselberg fields (Fields) in the Vienna basin. A summary of results from a competent person’s report (CPR) by ERC Equipoise Pte Ltd (ERCE) is shown in Appendix 1.
- 🔴 Audited developed Reserves at 31 December 2019 exceed ADX prepurchase expectation for 1P (Proven) and 2P (Proven and Probable) developed Reserves by 13% and 4% respectively. Refer table 1 below.
- 🔴 Actual field production to end September 2020 exceeds the audited developed 2P Reserves (Proven plus Probable) production forecast. Refer figure 1 below.
- 🔴 The audit work validates ADX reserves expectation of long life oil and gas production from the fields which is further supported by ongoing production trends.
- 🔴 In addition a field review is being undertaken utilising recently acquired and reprocessed 3D seismic. The outcome of this work is to identify development and appraisal opportunities. Refer figure 2 below.
- 🔴 Studies include the potential utilisation of infrastructure and depleted reservoirs for CO<sub>2</sub> storage and renewable technologies including green gas production and hydrogen storage.
- 🔴 ADX expects to announce the results of the undeveloped Reserves and appraisal opportunity studies in the near future.

ADX Energy Ltd (**ASX Code: ADX**), is pleased to advise the results of the Competent Person's Report ("CPR") undertaken by Independent Consultants ERCE. ERCE was engaged to audit the developed Reserves held by the ADX Energy Ltd Group (ADX) at the Zistersdorf Field and Gaiselberg Field in the Vienna Basin, Austria. The effective date of the CPR is 31 December 2019 (the Effective Date). The developed Reserves have been classified as producing and non-producing. The developed producing Reserves comprise oil and gas quantities from existing producing wells and non-producing developed Reserves from behind pipe reservoirs which will become producing reserves once perforated to access and produce proven oil and gas reservoirs has been made.

A 100% interest in the Fields as well as agreements for exploration data in Upper Austria were purchased on the 2 December 2019 from a wholly owned subsidiary of RAG Austria AG (REP). A base line assessment of developed Reserves has been undertaken by ADX based on the Fields' production and geological data (Data). The Data together with economic and commercial data provided by ADX have been used for the preparation of the CPR.

ERCE is an independent London and Singapore based consultancy specialising in geoscience evaluation, engineering and economic assessment. The CPR has been prepared in accordance with the June 2018 SPE/WPC/AAPG/ SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System (PRMS) as the standard for classification and reporting.

#### **Audited versus ADX Pre purchase Reserves Comparisons**

The unaudited estimated remaining 2P developed Reserves of 0.98 MMboe at 31 December 2018 was announced by ADX on 2 July 2019. Field production between 31 December 2018 to 31 December 2019 was 0.12 MMboe. Table 1 shows the equivalent previously reported Reserves calculated at 31 December 2019 by deducting production during 2019. A positive variance of 13% and 4% respectively is estimated for the 1P and 2P developed reserves categories between the audited Reserves announced in this release and the ADX previously reported, preacquisition estimates. A summary of the results from the CPR are shown in Appendix 1. All Reserves are based on PRMS Reserves classifications refer below.

**Table 1: Comparison of Previously Reported and Audited Developed Reserves**

(ADX 100% Working Interest)

	1P MMboe <sup>Note 1</sup>	2P MMboe	3P MMboe
Previous Reported Reserves @ 31/12/18 <sup>Note 2</sup>	0.60	0.98	N/A <sup>Note 3</sup>
less 2019 field production	0.12	0.12	0.12
Previous Reported Reserves @ 31/12/19	0.48	0.86	N/A
<b>Audited Reserves @ 31/12/19 <sup>Note 4</sup></b>	<b>0.54</b>	<b>0.89</b>	<b>1.51</b>
<i>%age variance</i>	13%	4%	N/A

**Notes:**

1) MMboe - million of barrels of oil equivalent including solution gas. Barrels of oil equivalent calculated based on: 5,841 scf = 1 boe  
The term Barrels of Oil Equivalent (BOE) allows for a single value to represent the sum of all the hydrocarbon products that are forecast as resources. Gas quantities are converted to an oil equivalent based on a conversion factor that is recommended to be based on a nominal heating content or calorific value equivalent to a barrel of oil.

2) Unaudited Developed Reserves Estimates reported by ADX at 2 July 2019 (Refer ASX Release)

3) 3P Reserves not previously reported by ADX.

4) ERCE Audited Developed Reserves at 31 December 2019

PRMS Reserves Classifications used in this Release

1P Denotes low estimate of Reserves (i.e., Proved Reserves). Equal to P1.

2P Denotes the best estimate of Reserves. The sum of Proved plus Probable Reserves.

3P Denotes high estimate of Reserves. The sum of Proved plus Probable plus Possible Reserves.

1. **Developed Reserves** are quantities expected to be recovered from existing wells and facilities.
  - a. *Developed Producing Reserves* are expected to be recovered from completion intervals that are open and producing at the time of the estimate.
  - b. *Developed Non-Producing Reserves* include shut-in and behind-pipe reserves with minor costs to access.
2. **Undeveloped Reserves** are quantities expected to be recovered through future significant investments.

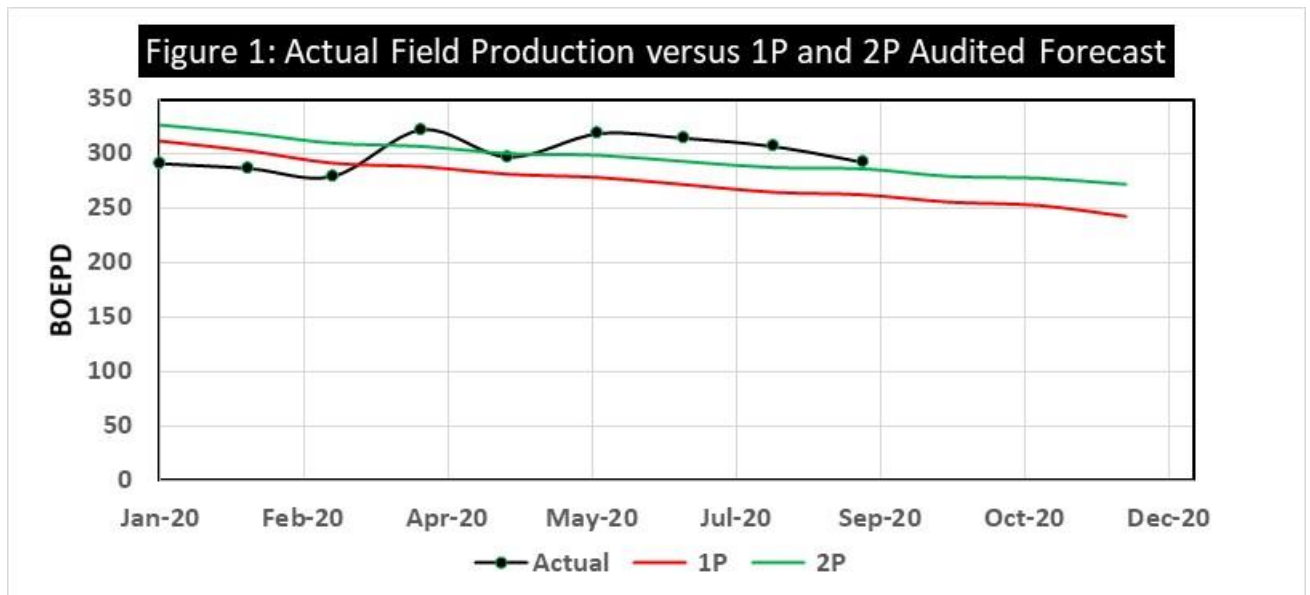
A. **Proved Reserves** are those quantities of Petroleum that, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable from known reservoirs and under defined technical and commercial conditions. If deterministic methods are used, the 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 that the quantities actually recovered will equal or exceed the estimate.

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

C. **Possible Reserves** are those additional Reserves that analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P) Reserves, which is equivalent to the high-estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate. Possible Reserves that are located outside of the 2P area (not upside quantities to the 2P scenario) may exist only when the commercial and technical maturity criteria have been met (that incorporate the possible development scope). Standalone Possible Reserves must reference a commercial 2P project.

**Audit Forecast versus Actual Production Comparisons**

A comparison of the audited forecast and actual Field production to end September is shown in Figure 1.



2020 Field production exceeds 2P estimates. Field production rates have increased over the year following the resolution of process related emulsion problems. Field monthly production rates fluctuate with well

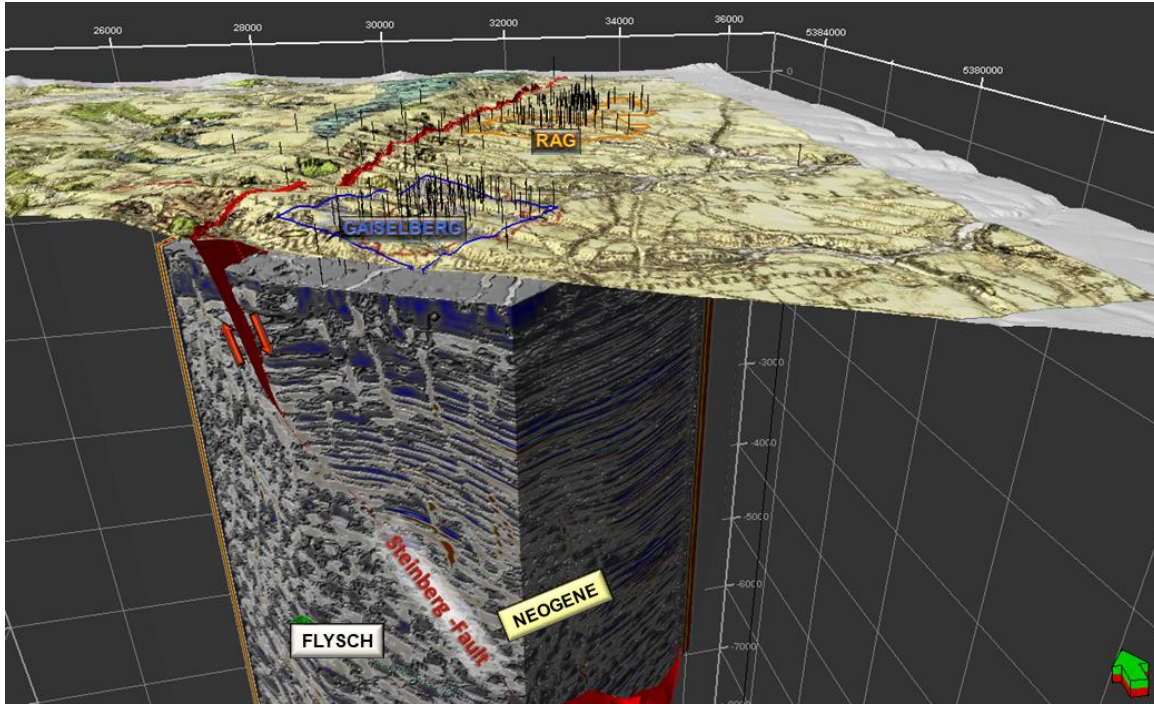
and processing facilities uptime. The average actual rate to end September 2020 was 301 BOEPD which exceeds the audited forecast 2P rate of 297 BOEPD and the audited 1P rate of 276 BOEPD for 2020.

### ***Other Value Enhancement Studies***

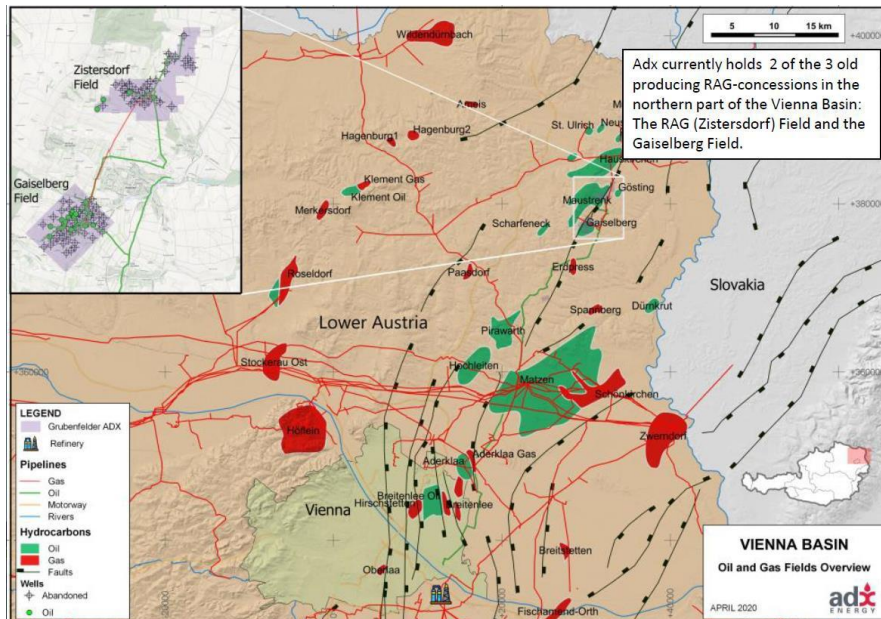
In addition to the developed Reserves review which was intended to provide assurance for the developed Reserves expectation, ADX is utilising state of the art 3D seismic to assess undeveloped Reserves and appraisal opportunities within the Fields area. The review is utilising recently acquired and reprocessed 3D seismic. The outcome of this work will be to better define development drilling opportunities within the Fields (Neogene reservoirs) as well as deeper appraisal opportunities in the proven but not yet fully developed Flysch reservoirs (Paleogene and Cretaceous age). The combination of low risk, long life developed production, high quality oil, low production royalties (less than 1%), shallow reservoirs (less than 1500m on average) as well as efficient and well maintained production infrastructure which is connected to the OMV refinery by export pipeline makes additions to the Field reserves potentially highly profitable.

ADX expects to mature development drilling as well as appraisal opportunities in the coming months which will be reported to shareholders at the appropriate time.

Oil and gas assets such as ADX Zistersdorf and Gaiselberg fields with reservoirs and infrastructure located near sources of CO<sub>2</sub> or potential green hydrogen generation are suitable candidates for potential utilisation for CO<sub>2</sub> storage and renewable technologies including green gas production and hydrogen storage. There is increasing funding potentially available as well as subsidies and carbon credits for CO<sub>2</sub> storage and renewable technologies in Europe. In Austria alone the currently 3.8 GW of solar and wind energy capacity is planned to be increased to 21 GW by 2030 according to EU guidelines, which will create significant excess energy for green hydrogen generation and for energy storage in general. ADX is therefore reviewing opportunities to redeploy its assets rather than abandoning them by creating an asset from what is currently valued as a liability. We look forward to reporting further in relation to these initiatives in the near future.



**Figure 2:** 3D seismic cube image showing on the hanging wall (right side) the younger highly productive Miocene & Pliocene (“Neogene”) age oil & gas reservoirs (approx. 50 reservoirs) and on the footwall (left) the proven but underdeveloped Mesozoic “Flysch” sandstone reservoirs. The Gaiselberg and Zistersdorf (“RAG”) production license outlines are shown in blue and yellow color on the rendered surface map.



**Figure 3:** Location map showing Gaiselberg and Zistersdorf showing the proximity to other fields held by OMV and proximity to Vienna where the OMV refinery is located.



**Figure 4:** Photograph showing Gaiselberg and Zistersdorf infrastructure proximity to large wind farms capable of generating hydrogen.

**ADX Executive Chairman, Mr Ian Tchacos, said,** *“The audit results confirm the developed Reserves and production potential of the Gaiselberg and Zistersdorf fields. While the assets are mature, they are very well maintained with adherence to the highest environmental and emission standards. Improvements in 3D seismic acquisition and processing technologies have the potential to yield further reserves additions and increased production. The assets also provide the opportunity to create further value for shareholders and provide environmental benefits through the future deployment of CO<sub>2</sub> storage and renewable gas technologies, there by delivering value from those assets for many years to come.”*

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**Authorised for lodgement by Ian Tchacos, Executive Chairman**

## ASX RELEASE



**Persons compiling information about Hydrocarbons.** Pursuant to the requirements of the ASX Listing Rule 5.31, the unaudited technical and reserves information contained in this release has been prepared under the supervision of Mr Paul Fink. Mr Fink is Technical Director of ADX Energy Limited, is a qualified geophysicist with 23 years of technical, commercial and management experience in exploration for, appraisal and development of oil and gas resources. Mr. Fink has consented to the inclusion of this information in the form and context in which it appears. Mr. Fink is a member of the EAGE (European Association of Geoscientists & Engineers) and FIDIC (Federation of Consulting Engineers).

ERCE has conducted an independent audit of the developed Reserves and consented to the inclusion of information specified as ERCE audited values in this release.

**Appendix 1**

**ERCE Developed Reserves Audit for Vienna Basin Fields**

**Summary of Key Findings**

A summary of the Austrian licence interests held by ADX Energy Limited (ADX) is summarised in Table 1-1.

Table 1-1: ADX’s Licence Interests, Lower Austria Basin

Block	Working Interest	Licence Expiry	Field(s)
Zistersdorf Field	100%	NA	Zistersdorf
Gaiselberg Field	100%	NA	Gaiselberg

**Notes**

- Both licence areas are covered by an Austrian mining law by which production rights are granted indefinitely.

ERCE has made an assessment of the following:

- The quantities of oil and gas to be produced from existing wells
- Hydrocarbons initially in-place (HIIP) and technically recoverable resources (TRR) for each of the behind-pipe opportunities which in aggregate amount to 80% of ADX’s Best estimate of TRR

The aggregate oil and gas developed (developed producing and developed non-producing) Reserves both in total and attributable to ADX’s working interests, are shown in Table 1-2 and Table 1-3



Table 1-2: Developed Oil Reserves as of 31 December 2019

	Gross Oil Reserves (MMstb)			Working Interest Oil Reserves (MMstb)		
	1P	2P	3P	1P	2P	3P
Developed Producing	0.34	0.53	0.86	0.34	0.53	0.86
Developed Non-Producing	0.16	0.28	0.50	0.16	0.28	0.50
<b>Total</b>	<b>0.50</b>	<b>0.81</b>	<b>1.36</b>	<b>0.50</b>	<b>0.81</b>	<b>1.36</b>

Notes

1. Company Working Interest Reserves are based on the working interest share of the field gross Reserves and are prior to deduction of any royalties.
2. Developed Producing Reserves comprise production from existing producing wells.
3. Developed Non-Producing Reserves comprise production from future completions of behind pipe reservoirs.
4. Totals may not sum arithmetically due to rounding.

Table 1-3: Developed Gas Reserves as of 31 December 2019

	Gross Gas Reserves (Bscf)			Working Interest Gas Reserves (Bscf)		
	1P	2P	3P	1P	2P	3P
Developed Producing	0.19	0.32	0.59	0.19	0.32	0.59
Developed Non-Producing	0.09	0.18	0.31	0.09	0.18	0.31
<b>Total</b>	<b>0.28</b>	<b>0.50</b>	<b>0.90</b>	<b>0.28</b>	<b>0.50</b>	<b>0.90</b>

Notes

1. Company Working Interest Reserves are based on the working interest share of the field gross Reserves and are prior to deduction of any royalties.
2. Developed Producing Reserves comprise production from existing producing wells.
3. Developed Non-Producing Reserves comprise production from future completions of behind pipe reservoirs.
4. Totals may not sum arithmetically due to rounding.

ERCE has reviewed the economic model provided by ADX. The economic evaluation is based on the fiscal regime in Austria, production and cost profiles generated by ERCE and several commercial assumptions. A summary of the net present values ( “NPVs” ) of future cash flows for the developed Reserves of the Zistersdorf and Gaiselberg fields at discount rates ranging from zero to 20% per annum as at 31 December 2019 at the 1P, 2P and 3P levels of confidence is presented in Table 1-4.

Table 1-4: Net Present Values of the developed Reserves as of 31 December 2019

	Net NPV				
	0%	5%	10%	15%	20%
	(US\$MM)	(US\$MM)	(US\$MM)	(US\$MM)	(US\$MM)
1P	1.7	3.1	3.7	4.0	4.0
2P	8.8	9.5	9.1	8.5	7.8
3P	21.8	19.6	16.5	13.9	11.8

Notes

1. The NPVs associated with the Reserves calculations contained within this report should not be construed as ERCE’s opinion on fair market value.

**END OF THIS RELEASE**