

Highlights 28 October 2021

The higher water offtake resulting from the successful Pump Enhancement
 Programme enabled critical desorption pressure to be achieved in the central part of the pilot.

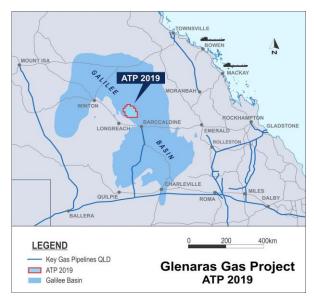
- Gas surges from the transitioning reservoir resulting in pump reliability issues workover operations have commenced to install new pumps with a modified completion setup.
- Operational focus is to maintain high water rates and drawing down pressure over multiple seams across a wide area of the pilot.
- Once unlocked the Galilee field will be one of the largest (multi TCF) uncontracted gas resources accessible to supply the gas-short eastern Australian market.
- Successful water handling through irrigation: Cutting and baling continued at pivots 1 and 2 with impressive crop yields, and a 3<sup>rd</sup> mobile irrigation system installed and operating.
- Federal government have reaffirmed funding will be available for appraisal activities in the Galilee Basin as part of the nation's gas-led economic recovery.
- Strong balance sheet with current cash position of \$13.6 million as at 30 September
   2021, with no debt.

"Galilee completed a busy quarter of activity safely and with minimal disruption, and recent results from the Glenaras Pilot continue to provide significant encouragement for the unlocking of a material gas resource. It is anticipated that following the scheduled workovers and the collection and review of new data, we will be well positioned for an expansion of operations to unlock the enormous gas reserves at Glenaras." Dr King said.



## Glenaras Gas Project (ATP 2019) - GLL 100%

Galilee Energy Limited (ASX:GLL) ("Galilee") is pleased to provide an update on the Glenaras Gas Project in the Galilee Basin in Queensland (Figure 1).



The Glenaras Gas Project ("Project") is located in ATP 2019, which is 100% owned and operated by Galilee. The Permit covers an area of approximately 3,200 km<sup>2</sup>.

The Project has one of the largest contingent gas resources on the east coast and is strongly positioned to help address AEMO's forecast eastern Australian domestic market gas shortfall expected from around 2023. The Project's independently derived and certified Contingent Resource\* within the Betts Creek coals are 1C of 308 PJ, 2C of 2,508 PJ and 3C of 5,314 PJ, which represents sufficient gas supply to fulfil 25% of eastern Australian domestic market needs for over 30 years (3C Contingent Resource at 650 PJ/year).

Figure 1 - Glenaras Gas Project.

Prior to the recent interruption due to pump failures, the Pump Enhancement Programme (PEP) progressively implemented mid-year (ASX release 29 July 2021) was successfully drawing down the pressure across the Pilot area at an accelerated rate. The greatly increased rate of pressure drawdown achieved with the PEP is shown schematically in Figure 2 below.

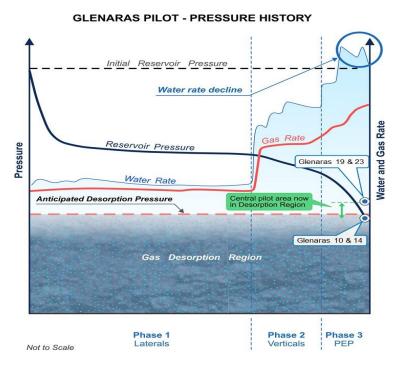


Figure 2 - Glenaras Pilot - pressure history



The increase in offtake to 20,000 BWPD following the PEP resulted in the first direct pressure measurement confirming achievement of drawdown below the anticipated desorption pressure (~600 psi). This was recorded in July 2021 at the central lateral well (G14L) (ASX release 20 July 2021). This was followed by a sub-600 psi measurement in the adjacent lateral G10 in September (ASX release 20 September 2021) which clearly confirmed the anticipated areal growth of the pressure "sink" in the central Pilot area. The pump failure also reported at that time in the vertical well G23 has subsequently enabled a pressure measurement at this outer Pilot location, and has recorded a pressure depletion at this location of ~240 psi in the short period since implementation of the PEP.

All relevant pressure measurements since the commencement of Pilot operations during 2018 are shown in Figure 3.

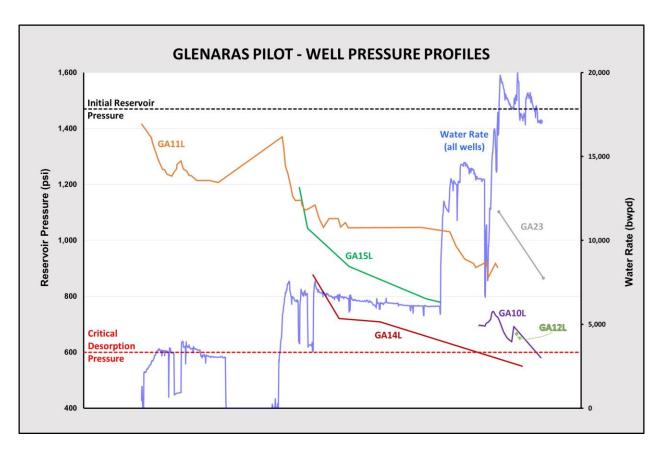


Figure 3 - Glenaras Pilot well pressure profiles

These data demonstrate clearly that since the recent implementation of the PEP, and with sustained high rates of water production at the vertical Pilot wells, the target pressure depletion across the Pilot area and associated ramping up of gas desorption rates is well within reach. With the realisation of such rates, the Glenaras Pilot would unlock one of the largest (multi-TCF) uncontracted gas resources accessible to the supply-short eastern Australian gas market.



The remaining challenge is to maintain the higher water rates which have demonstrably depleted pressures in the entire multi-seam Betts Creek sequence as far as 7 kms from the central Pilot area (ASX release 24 June 2021). Importantly, the pressure monitoring also confirms that the pressure draw-down is confined to the Betts Creek sequence, and not depleting the overlying Great Artesian Basin.

During the quarter we have had pump failures in the G10L, G14L, G20 and G23 wells, these failures followed a period of variable gas surges in the wells, a characteristic typical of a reservoir in transition. The cause of the pump failures appears to be related to the impact of gas and/or solids entering the pump inlets. More detailed prognoses will be possible when the pumps are recovered at surface during workover operations.

The current priority is to install appropriately sized new pumps in the G10L, G23, and G20 wells, incorporating completion modifications to improve the handling of gas surges, and leaving the central G14L well (a low water producing horizontal well in the R3 seam) as a valuable observation well. The workover crew are currently mobilising and it is anticipated that the planned completion improvements will mitigate the recent pump reliability issues. All pumps are expected to be back online by mid-November, returning production to around 18,000 BWPD.

Figure 4 is an areal representation of the pressure sink based on both measured and model derived pressure data, illustrating the concentrated pressure reduction in the central Pilot area as well as depletion in the regional Glenaras 8 and Rodney Creek 8 wells.

The depletion in these outer wells demonstrates excellent lateral connectivity in the reservoir across a large part of the permit. This augurs well for full field project economics and provides context for the additional amount of time taken thus far to reduce the pressure in the Pilot area and the large amount of de-watering required.

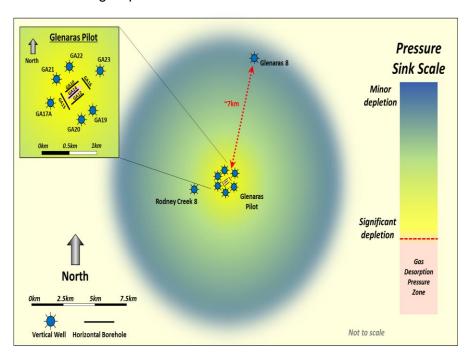


Figure 4 - Glenaras pressure sink areal development.



In particular, the recent confirmation of pressure depletion at Glenaras 8 (approximately 7km away from the Pilot) in the Betts Creek coals (Figure 4) has confirmed that the coal seams are considerably more productive than originally anticipated.

This greater productivity has two significantly positive implications for the Glenaras Gas Project: as well as providing a basis for a larger ultimate reserves target, the more widespread pressure depletion is expected to lead to improved project economics based on fewer wells to drain the productive coal area.

# Water handling projects

Efficient (and potentially value-adding) water handling remains critical to the efficient operation of the Pilot. During the quarter a mobile irrigation scheme has been successfully commissioned to supplement the two existing pivot irrigation areas. These three irrigation areas, together with the onsite water storage and reverse osmosis plant, have the capacity to handle sustained water production of 20,000+ barrels per day (and more).

Pivot 1 (sorghum) and Pivot 2 (oats) have recently been cut and baled, with impressive respective yields of approximately 180 tonnes and 210 tonnes. Both areas have been fertilized and irrigation has recommenced with the next harvesting of each crop scheduled for early summer.



Oats after 10 days of planting on pivot 2 area.



Second sorghum crop at pivot 1 area.



Drone shot of pivot areas 1 and 2.



## **ATP 2019 Seismic Reprocessing Project**

1,499km of legacy 2D seismic has been fully reprocessed (Figure 5) to contemporary quality and is currently being interpreted. The reprocessing will more accurately define the structural-stratigraphic architecture of the subsurface with a particular focus on the Betts Creek Beds. It will provide improved geological definition over the ~3,200 km² area over which the Contingent Resource is certified.

The project will deliver a suite of highly detailed time and depth maps of the Betts Creek Beds, the deeper Aramac Coal Measures, and the shallower Great Artesian Basin aquifers. This improved resolution of the subsurface will assist in the optimum siting of all future exploration, appraisal and development wells.

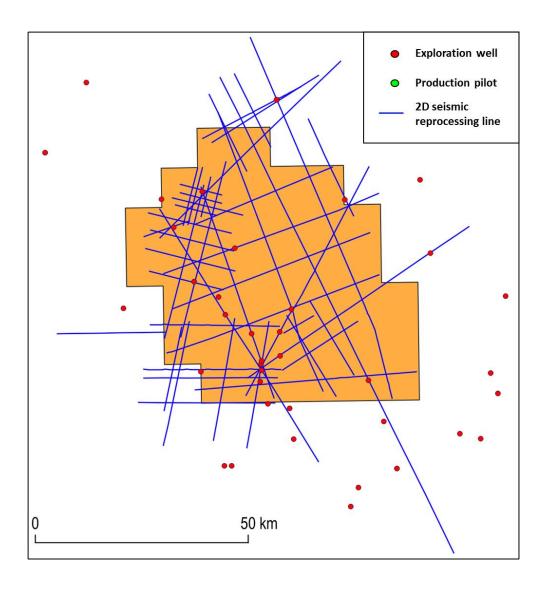


Figure 5 - ATP 2019 seismic reprocessing base map.



### ATP 2043 Kumbarilla Project – GLL 100%

Exploration work is progressing across the permit, integrating the results of the recently reprocessed 675km of 2D seismic, the existing regional well control, the Kumbarilla Central 1, 2 & 3 exploration wells and the adjacent PL 1009 pilot production data gained from the data exchange with Shell.

This multi-faceted suite of subsurface data has identified several prospective, conventional oil and gas leads plus increased definition of the Walloon Subgroup coal seam gas play. These opportunities will continue to be matured towards potential exploration drilling.

### ATP 2050 Springsure Project - GLL 100%

Evaluation of several conventional gas leads in ATP 2050 is ongoing. Geological risk and volumetric assessments of the leads are underway with the objective of determining if additional seismic is required prior to drilling.

ATP 2050 is strategically located for access to gas markets, being adjacent to the northern Denison gas fields of Springton-Arcturus, Yandina and Turkey Creek and their associated gathering and processing infrastructure.

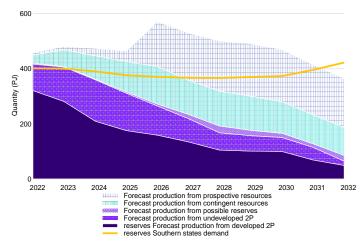
## Strong global and east coast gas price thematic

Global energy prices are trending upwards, with Brent oil price breaking through US\$80/bbl and Platts JKM<sup>TM\*\*</sup> currently in excess of US\$9/MMBtu\*\*\*. The current Wallumbilla netback price is above \$16/GJ.

Outlook for new natural gas supply into the east coast market is bleak, with gas supply shortfalls forecast from 2023 by ACCC (Figure 6) and the recent AEMO Gas Statement of Opportunities (GSOO) report confirming that the outlook for natural gas supply in the southern states had worsened from its previous assessments.

These supply scarcity risks have emerged one year earlier than projected and the last major southern gas field offering flexible supply is expected to be depleted ahead of winter 2023, reducing gas system resilience.

ACCC forecast gas supply and demand, Southern states.



Source: ACCC Gas Inquiry, January 2021 Interim Report.

Figure 6 – ACCC forecast east coast gas supply and demand.



### **Corporate**

The cash flow for the Quarter is presented in the accompanying Appendix 5B (quarterly Cashflow Report). The Company continues to maintain a very strong cash position as at 30 September 2021 of \$13.6 million, with no debt.

During the period, the Company spent \$3.6 million on exploration and evaluation activities, primarily on the Glenaras pilot pump enhancement programme, water management projects and Glenaras Pilot operating activities.

The Australian Government has released the Galilee Strategic Basin Plan to accelerate exploration and development of the Galilee Basin. It is the second plan to be delivered under the Strategic Basin Plans programme announced in the 2020-21 Federal Budget. It supports the government's vision to unlock the vast gas resources in the region to increase the nation's gas supply and put downward pressure on gas prices.

Galilee's accompanying Appendix 5B includes an amount in item 6.1 which constitutes director's fees paid in the September quarter.

### Petroleum Tenements Held

Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter
ATP 2019	Galilee Basin (Qld)	100%	100%
ATP 2043	Surat Basin (Qld)	100%	100%
ATP 2050	Bowen Basin (Qld)	100%	100%

Table 1

#### For further information contact:

Dr David King Managing Director Galilee Energy Limited +61 (0) 7 3177 9970 ACN:064 957 419

<sup>\*</sup> Listing Rule 5.42 + The details of Contingent Resources referenced throughout this release in respect to ATP 2019 were announced to the market on 1 September 2015. In accordance with Listing Rule 5.34.3, Galilee Energy confirms that it is not aware of any new information or data that materially affects the information in that market announcement reporting the details of the Contingent Resources for ATP 2019 and that all of the material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

<sup>\*\*</sup> Platts JKM™ is the Liquefied Natural Gas (LNG) benchmark price assessment for spot physical cargoes. It is referenced in spot deals, tenders and short, medium and long-term contracts both in Northeast Asia and globally.

<sup>\*\*\*</sup> British thermal units 1 million (MMBtu) = 1.055 GJ = 1Mcf.



# **About Galilee**

Galilee Energy is focused on creating a high value exploration and production company building on its core strengths in coal seam gas appraisal and development. Its primary area of focus is Queensland where it is appraising the Galilee Basin and exploring in the Surat and Bowen Basins whilst looking to add further high quality acreage to its portfolio.

This announcement was released with the authority of the Board.

# **Directors**

Chairman – Ray Shorrocks

Managing Director - Dr David King

Non-Executive Director – Stephen Kelemen

Non-Executive Director - Gordon Grieve

Non-Executive Director – Greg Columbus

Rule 5.3

# **Appendix 5B**

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

ABN
Quarter ended ("current quarter")

11 064 957 419

Quarter ended ("current quarter")

30 September 2021

## Consolidated statement of cash flows

1.	Cash flows related to operating activities		
1.1	Receipts from customers		
1.2	Payments for:		
	(a) exploration & evaluation		
	(b) development		
	(c) production		
	(d) staff costs		
	(e) administration and corporate costs		
1.3	Dividends received (see note 3)		
1.4	Interest received		
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	· · · · · · · · · · · · · · · · · · ·		
1.9	Other - Inventory  Net cash from / (used in) operating activities		
1.5	Net cash from / (used iii) operating activities		
2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) exploration & evaluation		
	(e) investments		
	(f) other non-current assets		
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other - Rental bonds received		
2.6	Net cash from / (used in) investing activities		
0	Not oddi nom / (dodd m) mydding ddividd		
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other - Payment for principal portion of lease liabilities		
3.10	Net cash from / (used in) financing activities		
5	table in financing doubted		

Current quarter	Year to date (3 months)
\$A'000	\$A'000
(0.570)	(0.570)
(3,573)	(3,573)
_	-
(500)	(500)
(135)	(135)
-	-
1	1
-	-
-	-
-	-
- (1.222)	-
(4,207)	(4,207)
_	-
-	-
(11)	(11)
-	-
-	-
-	-
-	-
-	-
-	-
_	
_	-
_	-
-	-
(277)	(277)
(288)	(288)
-	-
-	-
-	-
	-
_	
_	-
-	-
(176)	(176)
(176)	(176)

#### Consolidated statement of cash flows

Con	solidated statement of cash flows		
		Current quarter	Year to date
			(3 months)
		\$A'000	\$A'000
4.	Net increase/ (decrease) in cash and cash equivalents for the period	<b>-</b>	
4.1	Cash and cash equivalents at beginning of period	18,227	18,227
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(4,207)	(4,207)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(288)	(288)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(176)	(176)
4.5 <b>4.6</b>	Effect of movement in exchange rates on cash held	13,556	13,556
4.0	Cash and cash equivalents at end of period	13,330	13,330
5.	Reconciliation of cash and cash equivalents		
	at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter	Previous quarter
		\$A'000	\$A'000
5.1	Bank balances	219	472
5.2	Call Deposits	13,337	17,755
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	- 40.550	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	13,556	18,227
		Curr	ent quarter
6.	Payments to related parties of the entity and their associates		\$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1		212
6.2	Aggregate amount of payments to related parties and their associates included in item 2		-
0.2	Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an	ļ.	
	explanation for, such payments		
		7	
	6.1 - Directors' fees.	_	
7.	Financing facilities	Total facility	Amount drawn at
		amount at	quarter end
	Note: the term "facility" includes all forms of financing arrangements available to the entity.	quarter end	
	Add notes as necessary for an understanding of the sources of finance available to the entity.	\$A'000	\$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end	İ	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether i		
	financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing de	tails of those facilities	as well.
	Estimated and analysis like to feture annualism activities	ī	0.000
8. 0.4	Estimated cash available for future operating activities		\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)		(4,207
8.2	(Payments for exploration & evaluation classified as investing activities (item 2.1(d))		<u> </u>
8.3	Total relevant outgoings (item 8.1 + item 8.2)		(4,207)
8.4	Cash and cash equivalents at quarter end (item 4.6)		13,556
8.5	Unused finance facilities available at quarter end (item 7.5)		-
8.6	Total available funding (item 8.4 + item 8.5)		
	,		13,556
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)		3.2
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A".  Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and	,	
	if not, why not?		
	Answer:	7	
	Michigan.		
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and,	_	
	if so, what are those steps and how likely does it believe that they will be successful?		
	is 50, what are those steps and now interfaces it believe that they will be successful:		
		_	

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what

Answer:

basis? Answer:

# Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

#### Compliance statement

1	This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule
2	This statement gives a true and fair view of the matters disclosed.
Date:	28 October 2021

Authorised by:	The Board of Directors
	(Name of body or officer authorising release – see note 4)

#### **Notes**

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3 Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee"
- If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.