

# Quarterly Report

For the period ended 31 December 2021

SEAWARD PRODUCTION LICENSE P2607, OFFSHORE UNITED KINGDOM  
 (HARTSHEAD RESOURCES 100% AND OPERATOR)

Hartshead Resources NL (**Hartshead, HHR** or the **Company**) Seaward Production License P2607 covers five contiguous blocks (48/15c, 49/6c, 49/11c, 49/12d and 49/17b) located in the Southern North Sea (Figure 1) with four existing discoveries totalling **354 Bcf<sup>1</sup>** of 2C Contingent Resources.

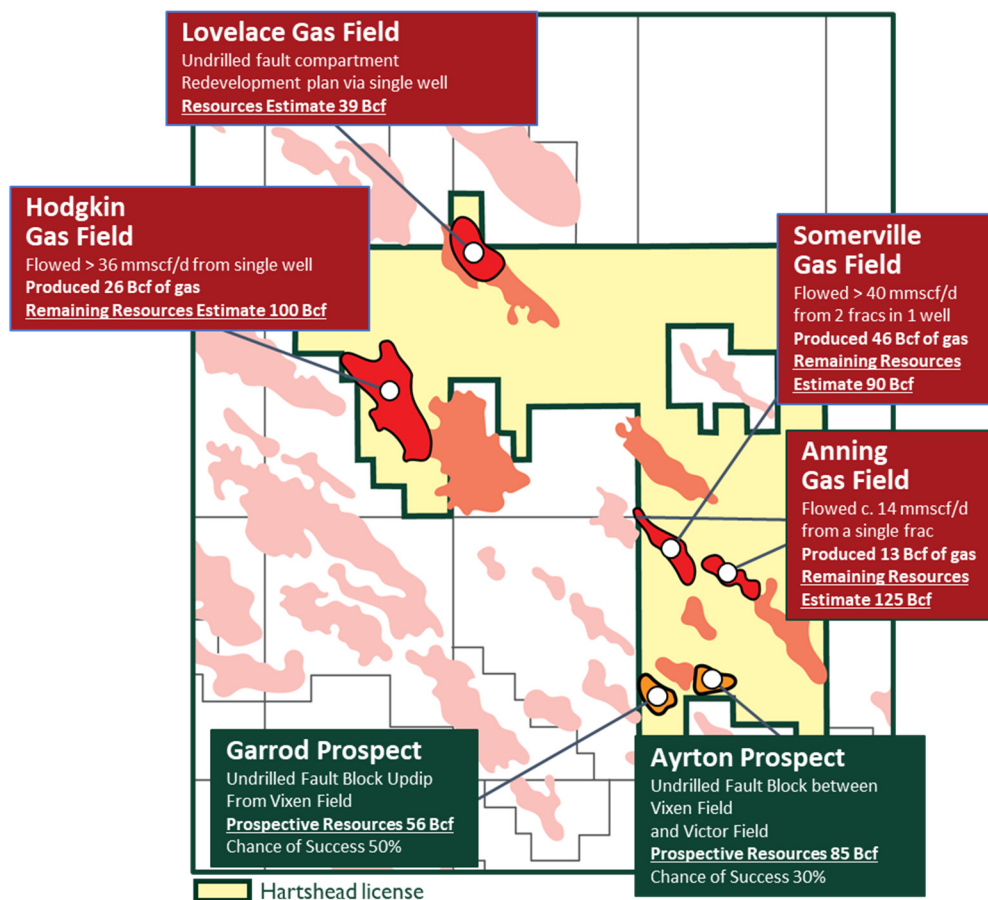
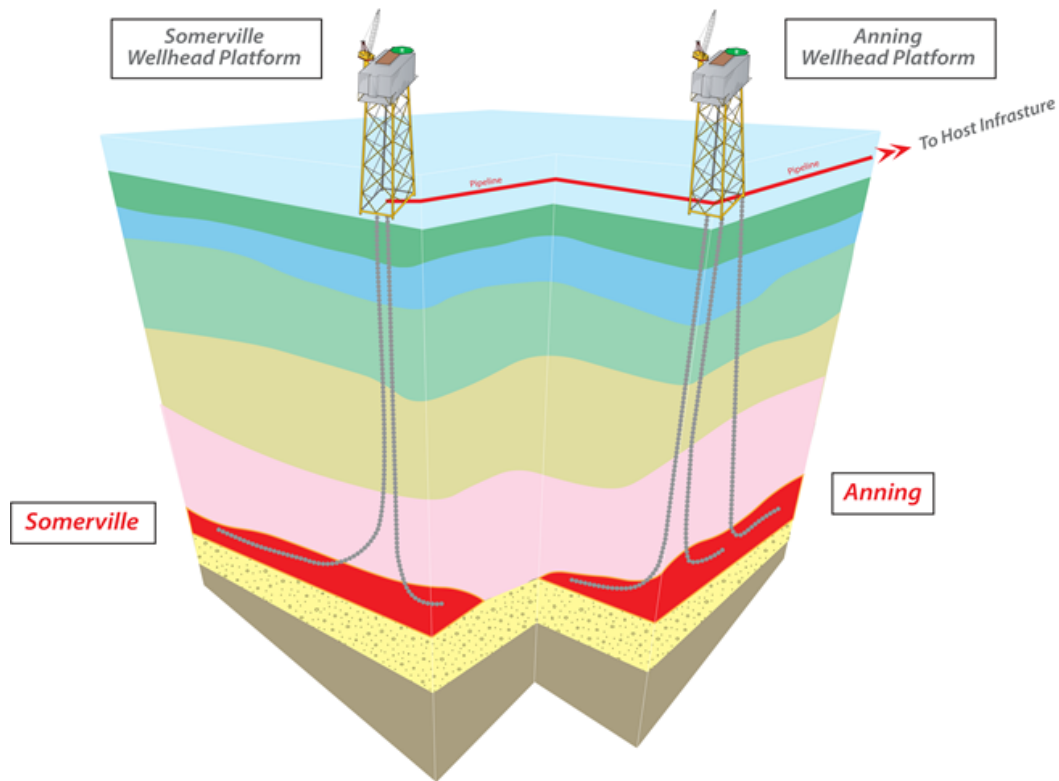


Figure 1. Hartshead Resources Seaward License P2607 holds multiple gas fields and prospects

During the quarter Hartshead continued to progress the Phase I field development project incorporating the Anning and Somerville Gas Fields. Following the completion of the Petrofac greenfield concept select and subsurface static modelling in the previous quarter, work has continued on finalising subsurface reservoir models and on discussions with third party infrastructure owner to identify a preferred gas transportation and processing route. The Phase I minimum facility unmanned dual-platform development

<sup>1</sup> Hartshead Resources management estimates.

concept identified by the Petrofac greenfield report will also be a key component of the Company’s ESG strategy aim at minimising emissions and power requirements whilst making full use of renewable energy sources.



**Figure 2. Anning and Somerville (Phase I) unmanned platform greenfield development concept**

In addition to this the fourth quarter of 2021 saw Hartshead announce that the Company had commenced the Phase II subsurface work programme covering the Hodgkin (block 48/15c) and Lovelace (block 49/6c, 49/11c) field developments.

The Company recently received the pre-stack depth processed Annabel, Audrey an Audrey Extension 3D seismic datasets from the previous Operator of the Audrey Field, Spirit Energy. This data was reprocessed between 2011 and 2013, incorporating six separate 3D seismic surveys and covers both the Hodgkin and Lovelace Fields.

This new data has enabled the Company to finalise a new work programme & budget for the Phase II subsurface workstreams, targeting completion in Q2 2022. The Phase II workstreams will encompass the construction of a new geological and geophysical database, detailed interpretation of the new 3D seismic data, petrophysical analysis and reservoir engineering to deliver revised in place gas volumes, recoverable 2C contingent resources and production profiles for both the Hodgkin and Lovelace gas fields.

The Hodgkin and Lovelace fields are located in the north-west part of License P2607 and are currently estimated to contain a combined **139<sup>1</sup> Bcf** of 2C Contingent Resources as detailed below. Following

completion, the Phase II work programme contingent resources at Hodgkin and Lovelace will be independently audited and the results compiled and announced as part of an updated Competent Persons Report (CPR) covering both the Phase I and Phase II assets.

CONTINGENT RESOURCES (Bcf) <sup>1</sup>			1C	2C	3C	GCoS
PHASE II	49/6c, 49/11c	Lovelace	14	39	79	100%
	48/15c	Hodgkin	35	100	387	100%

Once revised production forecasts for Hodgkin and Lovelace are available a decision will be made to proceed with field development planning for the two fields. This will present the opportunity to utilise the Phase I infrastructure to monetise the Phase II gas production.

#### ▪ HODGKIN FIELD

Historically produced 26 Bcf of gas from a single well, is currently estimated to contain **100 Bcf<sup>1</sup>** of 2C Contingent Resources and is an extension of the Audrey field. This estimate of in place and recoverable gas volumes and productivity of Hodgkin is already proven by previous drilling and production.

Seismic imaging of the reservoir at Hodgkin is challenging in places due to a complex overburden containing the Audrey Salt Wall. The recently received pre-stacked depth migrated (PSDM) seismic data significantly improves the seismic image, removing many of the effects of the overburden, and will improve the mapping of the Hodgkin gas field to generate a new structural map. This will assist with improved gas-in-place estimates and development well positioning.

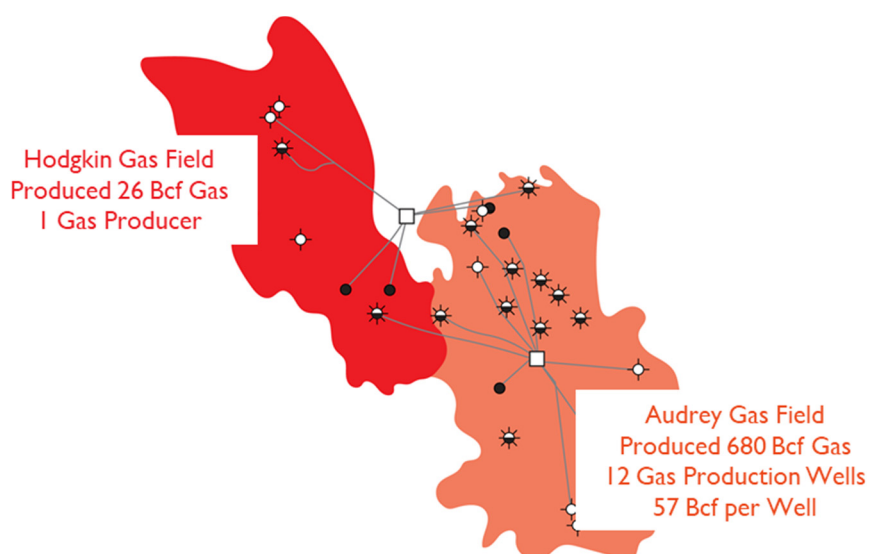


Figure 3. Audrey and Hodgkin gas fields with historical well locations and production history.

Petrophysical analysis of Hodgkin and Audrey wells plus analysis of production and pressure data from the historic field production will greatly improve confidence in production forecasts and contingent resource estimates for the field.

- **LOVELACE FIELD**

The Lovelace field is an undrilled extension of the Tethys gas field and is currently estimated to contain **39 Bcf<sup>1</sup>** of 2C contingent resources which is planned to be developed via a single production well. This field is also covered by the PSDM seismic data and revised production forecasts and contingent resources will be part of the Phase II workscope.

The adoption of a new naming convention for its gas fields and prospects within License P2607 was also announced during Q4 2021. The new field names have been chosen to celebrate exceptional British and Irish women in science, technology, engineering and medicine. The new names are listed below (along with the previous names).

NEW FIELD NAME	ORIGINAL FIELD NAME
<b>ANNING</b>	Victoria
<b>SOMERVILLE</b>	Viking Wx
<b>HODGKIN</b>	Audrey NW
<b>LOVELACE</b>	Tethys N
NEW PROSPECT NAME	ORIGINAL PROSPECT NAME
<b>GARROD</b>	Vixen SW
<b>AYRTON</b>	Vixen SE

During the quarterly period the Company announced that it had been selected to participate in several Special Interest Groups (SIGs) established by the UK Oil & Gas Authority (OGA) as part of the Bacton Energy Hub initiative. This initiative is focussed on future hydrogen generation at the Bacton gas terminal, where Hartshead intends to process its natural gas production.

The UK Southern Gas Basin, together with the Bacton gas terminal and offshore wind power infrastructure, form the Bacton Catchment Area (figure 4). In line with the UK's decarbonisation efforts and 2050 net zero target, the area has been the focus of a recent study by the OGA to consider how the Bacton Catchment Area could be developed into an energy and infrastructure hub for future hydrogen generation.

Hartshead's gas developments could provide material volumes of natural gas feedstock into the Bacton Energy Hub for blue hydrogen generation and the Company's future offshore infrastructure could potentially be utilised in Carbon Capture & Storage and electrification projects.

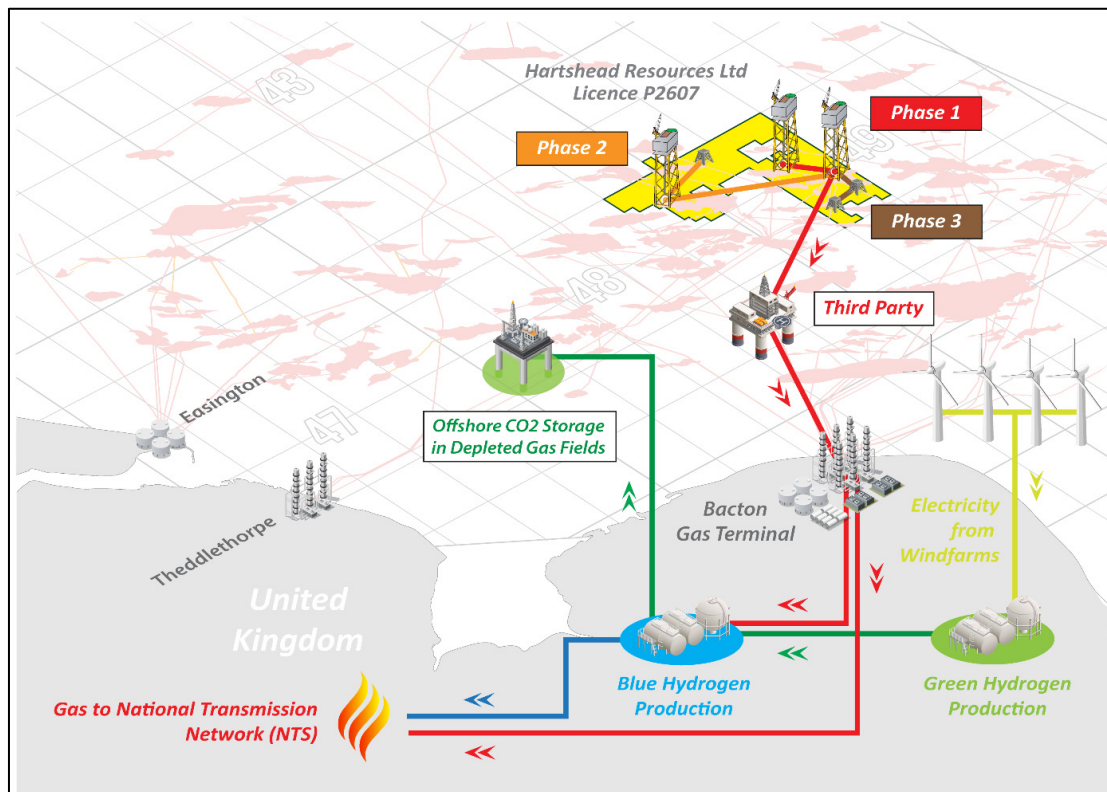


Figure 4. Hartshead License P2607 and Bacton Energy Hub Catchment Area

The OGA study has confirmed that there is a significant economic opportunity for a hydrogen-led energy hub centred at Bacton that will play a leading role in the UK’s energy future which focusses on the following elements:

- **Blue Hydrogen:** Using natural gas feedstock from existing and undeveloped gas fields to produce hydrogen via methane reformation;
- **Carbon Capture & Storage:** Depleted gas fields or suitable reservoirs to be used for the injection and storage of CO<sub>2</sub> generated as a by-product from Blue Hydrogen production;
- **Green Hydrogen:** Integration of new and existing wind turbines into the Bacton Energy Hub to produce hydrogen via electrolysis;
- **Electricity:** Generation of electricity from wind turbines to provide power to the UK grid and offshore installations in the Southern Gas Basin.

Given the experience of the Hartshead team in delivering Southern Gas Basin projects we believe the Company has much to contribute to the SIGs as well as acknowledging the importance of Hartshead being involved in discussions with various stakeholders regarding the future development of infrastructure critical to the Southern Gas Basin and the development of the Company’s assets. The OGA has proposed that Hartshead will act in a *Contributor* role to the Hydrogen Supply, Infrastructure and Regulatory Affairs SIGs with the Company being represented at the SIGs by Jeff Barnes (Project Developments Manager) and Steve Roser (Commercial Manager).

## CORPORATE & FINANCIAL

On 19 November 2021 the Company announced that it had established a Share Sale Facility for holders of Unmarketable Parcels of shares in the Company with a market value of less than A\$500. Hartshead provided the Facility to enable Unmarketable Parcels to be sold without shareholders incurring any brokerage or handling costs. The Facility was open to all shareholders holding 25,000 shares or less in the Company, based on a closing price of A\$0.02 per share on the record date of 18 November 2021.

On the closing date of the Facility, 7 January 2022, 710 shareholders had elected to sell a total of 7,502,862 shares at a price to be determined pursuant to the Company's constitution.

On 24 November 2021 the Company released an updated corporate presentation focussed on Hartshead's multi-phased gas development project in Seaward Production License P2607 and how this has the potential to deliver material volumes of natural gas feedstock for blue hydrogen generation as part of the UK government's Bacton Energy Hub initiative.

Hartshead's closing cash and cash equivalents at the end of the quarter were A\$4.7 million.

Pursuant to Listing Rule 5.4.1, Exploration and Evaluation Expenditure during the quarter was A\$128,000 and was comprised of field development activities; including finalising subsurface reservoir models and discussions with third party infrastructure owners to identify a preferred gas transportation and processing route. Further details of the development activity during the December quarter is set out in this report.

Pursuant to Listing Rule 5.4.2 there was no substantive oil and gas production activities undertaken during the quarter.

Pursuant to Listing Rule 5.4.5, payments to related parties and their associates during the quarter as outlined in Section 6 of the accompanying Appendix 5B to this quarterly activities report were A\$283,000. These payments are related to salaries, superannuation and directors' fees paid to directors and related entities during the December 2021 quarter.

## PETROLEUM TENEMENTS HELD AS AT 31 DECEMBER 2021

	% Interest	Tenement	Location
Held at end of the quarter	100%	Seaward Production License P2607	Offshore United Kingdom
	100% <sup>2</sup>	Nkembe Block	Offshore Gabon
	100% <sup>3</sup>	Ambilobe Block	Offshore Madagascar

There was no change in the Company's interests in the above tenements during the quarter.

## CORPORATE DIRECTORY

### Directors

Bevan Tarratt	Non-Executive Chairman
Christopher Lewis	Chief Executive Officer
Andrew Matharu	Chief Financial Officer
Nathan Lude	Executive Director

### Company Secretary

Matthew Foy

<sup>2</sup> Hartshead's interest is subject to the right of the State of Gabon to participate in any development for up to a 20% interest under the Nkembe PSC

<sup>3</sup> Subject to relinquishment as per the terms of the Ambilobe PSC

**Registered Office and Principal Place of Business**

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 Email: [info@hartshead-resources.com](mailto:info@hartshead-resources.com)

**Share Registry**

Computershare  
 Level 11, 172 St Georges Terrace  
 PERTH, WA 6000  
 Telephone: 1300 850 505 (within Australia)  
 +61 3 9415 4000 (outside Australia)

The Board of Directors of Hartshead Resources NL authorised this announcement dated 31 January 2022 to be given to ASX.

**PETROLEUM REPORTING STATEMENTS**
**UK Southern North Sea Production Seaward License P2607 – Contingent and Prospective Resources**

Please refer to the qualified person's statement relating to the reporting of contingent and prospective resources on Hartshead Resources Southern North Sea License P2607 in Hartshead's ASX Announcement dated 14 December 2020 (see Schedule 3). The Company is not aware of any new information or data that materially affects the information about the contingent resource and prospective resource estimates included in this announcement and all the material assumptions and technical parameters underpinning those estimates in this announcement continue to apply and have not materially changed.

Contingent resources reported herein have been estimated and prepared using the probabilistic method.

CONTINGENT RESOURCES (BCF)				
PHASE I PROJECTS		1C	2C	3C
ANNING	49/17b	84	125	177
SOMERVILLE	49/17b	62	90	124
COMBINED <sup>4</sup>	49/17b	161	217	285

CONTINGENT RESOURCES (BCF)			1C	2C	3C	GCOS
PHASE II	49/6c, 49/11c	Lovelace	14	39	70	100%
	48/15c	Hodgkin	35	100	387	100%
PROSPECTIVE RESOURCES <sup>5</sup>			P90	P50	P10	GCoS
PHASE III	49/17b	Garrod	29	56	94	50%

<sup>4</sup> Volumes combined stochastically to give portfolio volume

<sup>5</sup> Prospective resources are estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These prospective resources estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

EXPLORATION	49/17b	Ayrton	43	85	142	30%
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#### Note to Editors:

#### Hartshead Resources NL

ASX-listed Hartshead Resources NL and is focussed on building a financially, technically and environmentally responsible European Energy business.

Hartshead's goal is to secure and invest in projects where resources can be extracted and delivered to meet Europe's growing energy demand while supporting the transition to a low carbon future.

In progressing this strategy Hartshead is focused on its 100% owned Production Seaward License P2607 comprising of five blocks which contain four existing gas fields in the UK Southern Gas Basin.

Hartshead brings together a highly experienced oil and gas team with specialised knowledge covering subsurface, engineering, commercial, QHSE and capital markets with the required skillsets needed to successfully and safely deliver oil and gas upstream projects.

#### Forward Looking Statements

This document has been prepared by Hartshead Resources NL (HHR). This document contains certain statements which may constitute "forward-looking statements". It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including, but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve and resource estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delays or advancements, approvals and cost estimates.

HHR's operations and activities are subject to regulatory and other approvals and their timing and order may also be affected by weather, availability of equipment and materials and land access arrangements. Although HHR believes that the expectations raised in this document are reasonable there can be no certainty that the events or operations described in this document will occur in the timeframe or order presented or at all.

No representation or warranty, expressed or implied, is made by HHR or any other person that the material contained in this document will be achieved or prove to be correct. Except for statutory liability which cannot be excluded, each of HHR, its officers, employees and advisers expressly disclaims any responsibility for the accuracy or completeness of the material contained in this document and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this document or any error or omission there from. Neither HHR nor any other person accepts any responsibility to update any person regarding any inaccuracy, omission or change in information in this document or any other information made available to a person nor any obligation to furnish the person with any further information.



### Qualified Person's Statement

Hartshead has prepared the Contingent Resource and Prospective Resource information in this announcement in accordance with the ASX Listing Rules and the 2007 Petroleum Resources Management System published by the Society of Petroleum Engineers (SPE-PRMS). The Contingent Resource estimates and Prospective Resource estimates presented in this report were originally disclosed to the market in an announcement released 14 December 2020. Hartshead confirms that it is not aware of any new information or data that materially affects the information included in the aforesaid market announcement and that all the material assumptions and technical parameters underpinning the estimates in the aforesaid market announcement continue to apply and have not materially changed. The information in this announcement that relates to Contingent Resource information in relation to the Phase I Anning and Somerville fields is based on information compiled by technical employees of independent consultants, Oilfield Production Consultants Ltd, which information was subsequently reviewed by Mr Christopher Lewis. The information in this announcement that relates to Contingent Resource information in relation to the Phase II Hodgkin and Lovelace fields and the Prospective Resource information in relation to the Garrod and Ayrton prospects is based on information compiled by Mr Christopher Lewis and information compiled by technical consultants contracted to Hartshead which has been subsequently reviewed by Mr Christopher Lewis. Mr Lewis has consented to the inclusion of such information in this announcement in the form and context in which it appears and the resources information in this report is based on, and fairly represents, information and supporting documentation reviewed by, or prepared under the supervision of, Mr Christopher Lewis. Mr Lewis is a Director of Hartshead and has a BSc from the Imperial College, University of London and is a member of The American Association of Petroleum Geologists (AAPG) and the European Association of Geoscientists and Engineers (EAGE). Mr Lewis is qualified in accordance with the requirements in ASX Listing Rule 5.41.

## Appendix 5B

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

Name of entity

HARTSHEAD RESOURCES NL

ABN

11 150 624 169

Quarter ended ("current quarter")

31 DECEMBER 2021

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(20)	(33)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(283)	(602)
	(e) administration and corporate costs	(564)	(956)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	2
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(866)</b>	<b>(1,589)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	(5)
	(d) exploration & evaluation *	(108)	(606)
	(e) investments	-	-
	(f) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
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 Cash acquired on acquisition	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(108)</b>	<b>(611)</b>

<b>3. Cash flows from financing activities</b>		
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 (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	5,678	6,899
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(866)	(1,589)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(108)	(611)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	-	-

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

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	5
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>4,704</b>	<b>4,704</b>

\* Prior quarter amounts have been re-positioned for consistency with current quarter disclosures.

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	4,664	5,638
5.2	Call deposits	40	40
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,704</b>	<b>5,678</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	283
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<p><i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i></p>		
<p>Payments of Directors fees and salaries</p>		

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

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
<b>7.4 Total financing facilities</b>	<b>-</b>	<b>-</b>
<b>7.5 Unused financing facilities available at quarter end</b>		<b>-</b>
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(866)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(108)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(974)
8.4 Cash and cash equivalents at quarter end (item 4.6)	4,704
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	4,704
<b>8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>4.8</b>
<i>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.</i>	
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: N/A	
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?	
Answer: N/A	

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

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 basis?

Answer: N/A

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.

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2022

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

## Notes

1. 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.
2. 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.
4. 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".
5. 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.