

29 April 2022

March 2022 Quarterly Activities and Cash-Flow Report

Summary

- Santos purchase order for 30 wells after successful trial
- Rights Issue and Placement fully subscribed
- In discussions with two new distributors and new commissioned salesperson
- Sales and marketing progress
- Testing update
- Continued assessment of new energy and energy technology projects

Cooper Basin Progresses From Successful Trial to 30 Well Treatment

Post quarter end Hydrocarbon Dynamics Limited (“HCD”) was awarded the chemical treatment business for 30 wells with receipt of a follow-up order Santos, a large Australian oil and gas producer in the Cooper Basin. The order follows a successful trial on 3 wells in 2021.

With superior technology and performance, HCD will supplant one of the world’s largest oilfield chemical companies that previously treated these wells.

The initial order is for approximately A\$140,000 with treatment expected to recommence in May.

HCD concluded a successful 6-month trial for the Santos on a waxy field in the Cooper Basin, achieving the key objective of mitigating down time and production loss issues stemming from paraffin build-up. During the trial the use of HCD Multi-Flow reduced lost production by 96%.

The paid trial consisted of three separate treatments to remediate and inhibit the debilitating effects of paraffin deposition in oil tanks, wells and flowlines using HCD Multi-Flow. Results demonstrated that with the introduction of HCD Multi-Flow there were good improvements in well performance, cleaner flow lines and no additional build-up of sludge in the tanks.

HCD is connecting with other producers in the region with similar production issues to communicate the success of the HCD technology and to look for additional opportunities.

Rights Issue and Placement

On 11 February 2022, HCD announced a board supported 1 for 3 Rights Issues at \$0.011/share to raise up to \$1.6m. The Company’s raised the full amount via the issue of 146,762,894 fully paid ordinary shares. The Rights Issue was well supported with approximately 67% of the funds coming from existing HCD shareholders, followed by Peloton Capital placing the shortfall with several Sophisticated Investors.

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Sales & Marketing Progress

- As previously reported, after a successful head-to-head laboratory evaluation of HCD Multi-Flow against the incumbent supplier's products, HCD was given a verbal commitment from a national oil company operating in the North Sea to trial HCD's paraffin control technology. This trial is contingent on successful completion of the required North Sea chemical approvals and registration. HCD achieved umbilical approval for HCD Multi-Flow which is a prerequisite and an important step in meeting the required chemical approvals and registration.
- A USA supermajor oil and gas company has completed testing of HCD's chemistry for viscosity reduction on their Athabasca region heavy oil. The data was shared with field management who will evaluate HCD technology's paraffin control ability in their wax flow loop. Testing is expected to commence in 1 to 2 months, depending on equipment availability. Successful testing is expected to lead to trial of HCD technology in the field.
- HCD is engaged in discussions with two new distributors. The first is an oilfield chemical provider in North Dakota, USA and the second is a Dubai based distributor who will target the Middle East and Egypt. A USA based commissioned salesperson is also being brought on to target producers where his strong relationships can streamline delivery opportunities for HCD.
- One of HCD's Texas based distributors has acquired crude oil samples from two different producers, one from a significant waxy field in the Eagle Ford Shale and another from the Permian Basin. The crudes will be tested with HCD Multi-Flow in a wax flow loop to evaluate the chemistry's effectiveness at controlling paraffin. Testing is expected to commence in the next few weeks. Successful outcomes are expected to result in trials.
- HCD's Dubai based distributor is targeting tank cleaning and production system opportunities in the Middle East and Africa and anticipates a purchase order from a national oil company for a tank cleaning trial with HCD's Kleen-Flow chemistry in North Africa.
- HCD's India based distributor with a large presence in South America is working on heavy oil viscosity reduction opportunities in Colombia with a leading independent Latin American oil and gas operator. The producer is considering their current heavy oil operations with high-cost diluent that may be economically feasible to treat.
- Advanced discussions, between HCD's India based distributor and a large private sector producer in India, for the treatment of a significant crude oil pipeline have led to the producer supplying a waxy crude oil sample for rheology testing and wax flow loop testing. This evaluation work is required by the producer as a chemical screening phase needed before proceeding to a trial. The desire is to reduce or eliminate the need for heat addition to the pipeline via natural gas boilers as required for crude oil mobility.
- Our agent in India is also working on opportunities with a large India based private sector oil and gas producer as well as several mid-sized private producers.

- HCD has directly engaged two producers in the USA Gulf of Mexico for paraffin/asphaltene control in their subsurface flowlines. One is in the process of reviewing their assets to identify a good trial fit for HCD's technology.

Testing Update

Laboratory testing remains a continuing and important part of HCD's product development and marketing with the current focus being CEFAS certification of HCD Multi-Flow for a large North Sea application. CEFAS certification documentation, which is required for HCD to progress the North Sea opportunity, has recently been submitted and we are now undergoing the Partitioning Test phase of certification. Progress has been delayed due to Covid and certification can take an additional 5 months.

Umbilical certification has been achieved with HCD Multi-Flow meeting or exceeding approval specifications in all testing areas. HCD Multi-Flow is now Umbilical Certified as well as Gas Lift and Capillary String Certified.

HCD Multi-Flow has attained UK REACH certification as required for the North Sea project.

Flow loop testing has commenced on samples in the Eagle Ford Shale and the Permian Basin as flow loop testing best simulates field conditions and better accentuates the effectiveness of HCD Multi-Flow in field applications.

Also pending is a series of tests for sludge characterisation and composition required for the APAC sludge treatment opportunity outlined in the Sales & Marketing Progress section above.

Finance

At the end of the quarter HCD had \$2.6m in cash reserves and no debt, following a successful Rights Issue and Placement.

Related party transactions during the quarter were for approximately \$76,000 in Director's fees and \$45,000 in royalty payments.

Approved by the board of Directors.

For further information please contact:

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Hydrocarbon Dynamics Limited

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ASX Code: HCD

Appendix 5B

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

Name of entity

Hydrocarbon Dynamics Limited

ABN

75 117 387 354

Quarter ended ("current quarter")

31 March 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	20	20
1.2 Payments for		
(a) exploration & evaluation (if expensed)	(10)	(10)
(b) development		
(c) production	(15)	(15)
(d) staff costs	(180)	(180)
(e) administration and corporate costs	(81)	(81)
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 Other (Royalty)	(45)	(45)
1.9 Net cash from / (used in) operating activities	(311)	(311)

2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities		
(b) tenements		
(c) property, plant and equipment		
(d) exploration & evaluation (if capitalised)		
(e) investments		
(f) other non-current assets		

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
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 (Bond)		
2.6	Net cash from / (used in) investing activities	-	-
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,547	1,547
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	(38)	(38)
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)		
3.10	Net cash from / (used in) financing activities	1509	1509
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,394	1,394
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(311)	(311)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,509	1,509

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	2,592	2,592

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 \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,291	1,093
5.2	Call deposits	301	301
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,592	1,394

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

Current quarter \$A'000
(121)
-

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

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<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)		
7.4 Total financing facilities		

7.5 Unused financing facilities available at quarter end	
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.	

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(311)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	-
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(311)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	2,592
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	2,592
8.7 Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	8.33

8.8	If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
	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?	
	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?	
	3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	

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: 29 April 2022

Authorised: By the Board

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.