

28 October 2021

## September 2021 Quarterly Activities and Cash-Flow Report

### Summary

- Excellent Australian Cooper Basin trial results
- Sale of Utah project completed – proceeds US\$500,000
- Additional distributors appointed.

### Cooper Basin Trial Update

Hydrocarbon Dynamics Limited (“HCD”) received preliminary feedback from the field trial with a large Australian oil & gas producer in the Cooper Basin. The paid trial consists 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 through to August 26<sup>th</sup>, including the coldest winter months, indicate that since the introduction of HCD Multi-Flow the operator has reported exceptional improvements in well performance, cleaner flow lines and no additional build-up of sludge in the tanks.

HCD Multi-Flow has been treating three ‘trouble’ wells since the first week of June. In prior years, these wells consistently suffered from shut-ins with subsequent lost production due to high pressure trips from flowline paraffin plugging during the coldest times of the year. Since the continuous injection of HCD Multi-Flow the wells have not experienced a single shut-in due to high pressure from wax deposition. Similar wells that are not part of the pilot test and that are being treated with the incumbent chemical company’s paraffin treatment chemistries continue to experience frequent shut-ins and lost production due to paraffin plugging.

Additionally, a little over half of the total produced crude oil is being treated with HCD Multi-Flow into the inlet of two production crude tanks. These tanks discharge into the export crude line. The operations team downstream of this treatment have indicated that the pipeline pigs have significantly less wax build-up compared to pre HCD Multi-Flow treatment. A picture shared with HCD management showed the pig to be virtually clean.

The operator has reported that there has been a reduced rate of build-up of sludge in the two production tanks which had significant sludge levels prior to the start of HCD’s treatment programme. HCD believe that the application of HCD Multi-Flow has slowed down further sludge build-up and has recommended to the operator that they slowly increase injection of HCD Multi-flow to clean up existing sludge before returning to maintenance dosage.

The trial will utilise approximately A\$75,000 of HCD Multi-Flow product and is expected to conclude in October. Success will likely lead to the expansion of the treatment scope for ongoing operations as well as open up other opportunities in the region.

## **Sale of Utah Project**

HCD completed the sale of its interests in the Utah oil sands project for cash consideration of US\$500,000 and an ongoing 2% revenue-based royalty.

The purchaser has also committed to test HCD's technology in three wells in the project area within six months of the completion of the sale.

## **Sales & Marketing Progress**

HCD's sales and marketing efforts continue both directly and via its distributors and agents. In addition, the updated and enhanced website is delivering credible opportunities from direct producer inquiries as well as from distributors.

Significant effort has been directed toward securing a paraffin inhibition trial on an offshore platform in the North Sea that requires several steps before the trial can be formally awarded. These include UK Reach and CEFAS approval as well as successful umbilical testing. The operator has identified two platforms plagued with wax issues as possible candidates.

In addition to our successful Australian trial, both our India Agents have made significant progress with opportunities in India where proposals for trials are under consideration for a pipeline test and an Enhanced Oil Recovery test. Both are with major producers.

HCD USA based field trial opportunities have been pushed back because of a shift in focus from remediation to drilling campaigns but are still expected to occur by the first quarter of 2022. Areas of focus include the Eagle Ford Shale, Colorado DJ Basin, and North Dakota.

Distributor relationships are progressing. A new distributor has been appointed to exclusively focus on the tank cleaning market, especially in the USA, Europe and the Middle East.

HCD is transitioning to a new Western Canadian distributor with a broader reach and a paraffin control focus. Efforts continue to find suitable distributors for the Gulf of Mexico as well as for the South Texas and Eagle Ford Shale markets.

Efforts also continue to identify additional investment opportunities in energy and energy technology projects.

## **Testing Update**

Laboratory testing remains a continuing and important part of HCD's product development and marketing.

Further umbilical testing is being performed for umbilical certification required for the North Sea opportunity. This testing is ongoing and should be completed within a month.

UK Reach certification is underway for HCD Multi-Flow for the UK opportunity as well and we expect completion will also be achieved within a month.

CEFAS certification is required for chemical treatment in the North Sea, which is a slow process. Documentation has been recently submitted for certification though it is expected that further work may be required.

Our new distributors continue with lab testing to improve the performance of HCD's product in the laboratory environment with the less expensive ASTM tests employed by many in the industry. HCD Multi-Flow performs very well in the closed loop testing that more accurately mimics field conditions however this test is much more expensive than the old testing methods utilizing crystal modification chemistries traditionally used in the field. Nevertheless, HCD recognises that modifying Multi-Flow to perform in this test will open more marketing and sales opportunities.

## Finance

At the end of the quarter HCD had \$1.895m in cash reserves and no debt.

Related party transactions during the quarter were for approximately \$102,000 in Directors fees and \$66,000 in royalty payments.

## Oil and Gas Tenements as at 30 September 2021

Project	Location	Interest acquired or disposed of during the quarter net to HCD	Total acres owned net to HCD	Working Interest held as at 31 September 2021
Utah	Uintah, County	(3,459)	-	Nil

For further information please contact:

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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")

30 September 2021

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	161	174
1.2 Payments for		
(a) exploration & evaluation (if expensed)	(77)	(133)
(b) development		
(c) production	(21)	(150)
(d) staff costs	(187)	(557)
(e) administration and corporate costs	(252)	(454)
1.3 Dividends received (see note 3)		
1.4 Interest received	1	3
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	(75)	(75)
1.7 Government grants and tax incentives	147	147
1.8 Other (Royalty)	(65)	(190)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(368)</b>	<b>(1,235)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) entities		
(b) tenements		
(c) property, plant and equipment		
(d) exploration & evaluation (if capitalised) (prior quarters reallocated to operating activities)	24	-
(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 (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements	685	685
	(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)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>709</b>	<b>685</b>

<b>3.</b>	<b>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	(2)	(2)
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</b>	<b>Net cash from / (used in) financing activities</b>	<b>(2)</b>	<b>(2)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,551	2,442
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(368)	(1,235)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	709	685
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(2)	(2)

## 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 (9 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,890</b>	<b>1,890</b>

<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	1,022	284
5.2	Call deposits	868	1,267
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>1,890</b>	<b>1,551</b>

**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

<b>Current quarter \$A'000</b>
(168)
-

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

<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)		
7.4 <b>Total financing facilities</b>		
7.5 <b>Unused financing facilities available at quarter end</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)	(386)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	24
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(362)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	1,890
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	1,890
8.7 <b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	5.22
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: 28 October 2021

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.