



## Indago Energy Limited

30 October 2019

### September 2019 Quarterly Activities and Cashflow Report

#### Summary

- Indago recorded revenues of \$103,400
- Approval received for on-shore pilot for Oil India
- Post Quarter end Indago awarded two pilots; one for large offshore oil producer in the Gulf of Mexico, the second for large pipeline in India for a major producer
- Indago invited to select well for field trial in Kuwait for Kuwait Oil Company
- Appointment of Andrew Seaton, former Santos CFO, to Indago Board
- Continued efforts to convert successful field pilots in China and Canada into sales
- Continued efforts to convert successful laboratory results on oils into field trials for projects in Gulf of Mexico (2<sup>nd</sup> producer), Canada, Kuwait, Abu Dhabi, Iraq, Colombia and Turkmenistan.

#### Multi-Flow<sup>®</sup> Sales

During the Quarter, Indago received Purchase Orders for a total of approximately \$~A195,000 of HCD Multi-Flow<sup>®</sup> and related products to producers in Canada, USA, and China. A further 32 drums have been sent for upcoming trials in India and Kuwait.

The bulk of the sales were related to a field in the East Texas Basin and produce from the Lower Cretaceous Rodessa Formation. The wells carry very high paraffin levels and the customer has performed a Tri-Phase Squeeze with HCD Multi-Flow on each well to boost production and then maintain higher production with a continual low level HCD Multi-Flow<sup>®</sup> feed of 200-300 PPM to the backside of the well to keep the wells free from paraffin.

#### Field Trials

During the Quarter, and shortly after, Indago was awarded two new field trials.

**1. Gulf of Mexico.** On 10 October Indago announced that its key product, HCD Multi-Flow<sup>®</sup>, would be used in a pilot on an offshore platform in the US Gulf of Mexico to clean up wax and asphaltene deposition in a subsea transfer pipeline and prevent them from recurring.

ABN: 75 117 387 354

Tel: +61 3 9642 2899 | Fax: +61 3 9642 5177

Level 6, 412 Collins Street, Melbourne VIC 3000 Australia



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The line is owned by a significant oil producer concentrating largely on deep-water US Gulf of Mexico assets.

In the trial, HCD Multi-Flow® will be applied to an ~850 barrel of oil/day transfer line at dosage rates from 250 parts per million (“PPM”) up to 1,000 PPM. The objective of the trial will be to reduce the pressure in the line by cleaning the paraffin and asphaltene deposition and to prevent build up of waxes and paraffins in the future. The benefits to the producer will be flow assurance in the line, cost reductions associated with replacing numerous chemicals currently used and improved Health, Safety & Environment (HS&E) outcomes.

The producer has purchased US\$11,760 of HCD Multi-Flow® for the pilot which will commence in earnest once suitable injection equipment has been procured to apply the product at the correct injection point. The pilot has commenced, but the determinative testing is expected to now begin in November and take approximately 30 days to complete.

**2. Pipeline trial in India.** On 14 October Indago announced it had received approval to undertake an important trial to test the efficacy of HCD Multi-Flow® for one of India’s largest pipelines.

In a staged trial HCD Multi-Flow® will be applied to a circulation pipeline and storage tank containing 2,400 barrels of oil within a terminal associated with a 175,000 barrel/day pipeline operated by a major producer in India. The objective of the trial will be to reduce the pour point and wax appearance temperature in order to reduce the substantial costs of transporting and managing the waxy oil produced.

In Stage 1 of the trial HCD-Multi-Flow® will be injected into the circulation line at rates varying between 500 and 2,000 parts per million (“PPM”) with the aim of reducing the pour point and wax appearance temperature of the crude by 15<sup>0</sup>C. Stage 2 of the trial will seek to reduce pour point by 25<sup>0</sup>C with an injection rate of 5,000 PPM of HCD Multi-Flow® or less. INK will provide approximately 12 drums of HCD Multi-Flow® for the pilot which is expected to commence in the December Quarter.

**3. Oil India.** On 15 July Indago announced that it had received approval to undertake its first field trial in India for one of India’s pre-eminent producers, Oil India, using INK’s key product, HCD Multi-Flow®.

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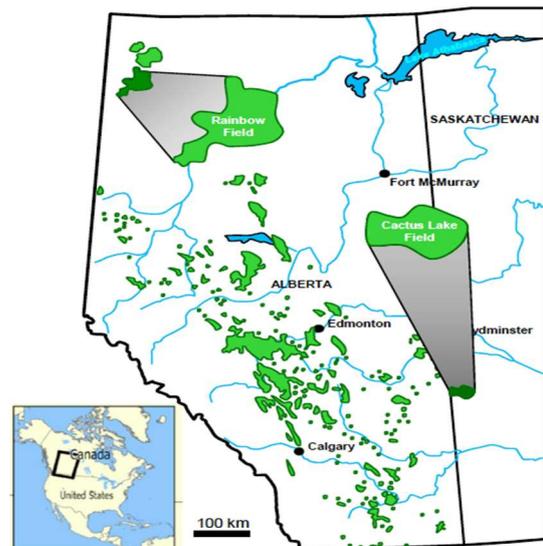
## Indago Energy Limited

Indago received a Purchase Order to treat a well in the Baghewala oil field in northern India using HCD Multi-Flow<sup>®</sup>. The Baghewala field currently has seven wells in production with a further 15 development wells planned. The existing wells currently produce approximately 40 barrels of oil/day each having encountered significant declines over several years. The objective of the trial will be to re-liquefy paraffinic and asphaltenic deposits in the formation and salt scales in order to improve production rates, over a six month period. The trial is expected to commence in the current quarter.

The trial will require approximately A\$50,000 of HCD Multi-Flow<sup>®</sup> and companion products which will be paid subject to meeting certain production criteria. The products have arrived in country for a test expected to occur in the December Quarter. The test is likely to be conducted back to back with the recently announced India pipeline pilot.

**4. Canada.** Last quarter Indago announced that it would undertake a trial of its key product, HCD Multi-Flow<sup>®</sup>, for a major Canadian oil producer in Alberta. To date the producer has reported a significant spike in oil production, but field staff did not follow protocols to set-up a continuous drip to ensure continued increased production by preventing asphaltene plugging in the reservoir and wax deposition in the production tubulars.

Indago management is seeking to have the test resumed with continuous drip feed.



**5. California.** After successful laboratory tests, California's largest heavy oil producer purchased \$11,760 of HCD Multi-Flow to undertake a two well enhanced oil recovery test at one of their oilfields in California. The producer has not yet notified Indago of the start date for the trial.

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### China Update

As reported last quarter, INK and its distributor in China have continued efforts to build on the very successful results of the diluent reduction trial undertaken in CNPC's giant heavy oilfield. Discussions are continuing for a paid pilot-scale field trial.

### Middle East Update

Indago and its Middle East distributor, Gulf Green Crude Dynamics (GGCD), have continued to work on converting successful laboratory tests to field trials and tank cleans with oil producers in the UAE, Kuwait, Iraq and Oman.



GGCD and HCD staff recently met with representatives at ADOC, ADNOC, Kuwait Oil Company and Saudi Aramco to progress field trial proposals.

For ADOC, GGCD are working on securing a 3 month preventative maintenance programme which will be designed to avoid future sludge build-up in tank storage facilities and pipeline infrastructure.

In ADNOC's case GGCD is pursuing tank cleaning contracts after successful test on liquefying sludge with the addition of Multi-Flow®.

KOC has invited GGCD to select pilot wells in the Abdulyah Oilfield (adjacent to the Greater Burgan field). The objective is to increase the production flow rate by reducing crude oil viscosity in an oilfield that produces from mixed carbonate-siliciclastic reservoir rocks in thousands of producing wells.

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### South America Update

Indago's agent in South America continues to work towards converting highly encouraging independent laboratory tests into field pilots with two companies. In previous quarterly reports it had been noted that the heavy crude oils of Colombia consistently respond well to treatment with HCD Multi-Flow® in laboratory tests with uplifts in API gravity in the range from ~130 API to 150API and reductions in viscosity in the order of 50%. Given the significant viscosity issues associated with these crudes, the laboratory results strongly indicate substantial cost savings can be achieved by producers in both enhanced oil recovery, and especially for diluent replacement. The potential for HCD Multi-Flow sales remains substantial.

### Kentucky Project Update – Indago Owned (100% WI 81.25%NRI)

No work undertaken during the Quarter.

### Utah Project Update - Indago Owned (100% WI 81.25%NRI)

After securing the necessary cultural surveys and permits required by the State of Utah for bulk sample collection, Indago conducted a shallow (2 metre) auger hole work programme. The targeted sands were deeper than prognosed. In order to keep costs low Indago will now source samples from a nearby source to help determine oil characteristics, the ability of HCD Multi-Flow® to liberate the oil and to assist in early design of processes needed to extract oil at the pilot stage.

### Oklahoma Newkirk Project – Indago Owned (100% WI 81.25%NRI)

No work was conducted during the quarter. INK currently holds 558 acres with 915 acres relinquished in the September Quarter.

### Financial

As reported last quarter, the Company received strong support from shareholders for its recently completed 1 for 3 Rights Issue with the bulk of the funds received in July. Total raised was \$2,468,194.

In addition, the Company received revenues of \$103,400 for sale of products for the Quarter. At 30 September 2019, Indago Energy had cash resources of approximately \$2.133m.

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## Indago Energy Limited

### Oil and Gas Tenements as at 30 September 2019

Project	Location	Interest acquired or disposed of during the quarter net to Indago	Total acres owned net to Indago	Working Interest held as at 30 June 2019
Newkirk	Kay and Noble Counties,	-	558	100%
Kentucky	Butler and Warren Counties, Kentucky	-	1,843	100%
Utah	Uintah, County	-	3,459	100%

For further information please contact:

**Stephen Mitchell**  
**Chairman**  
**Indago Energy Limited**

**Julie Edwards**  
**Company Secretary**  
**Indago Energy Limited**

Telephone: +61 3 9642 2899  
Website: [www.indagoenergy.com](http://www.indagoenergy.com)

**ASX Code: INK**

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Indago Energy Limited

### ABN

75 117 387 354

### Quarter ended ("current quarter")

30 September 2019

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	103	108
1.2 Payments for		
(a) exploration & evaluation	(189)	(559)
(b) development	-	-
(c) production	(11)	(48)
(d) staff costs (including marketing)	(348)	(981)
(e) administration and corporate costs	(276)	(628)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	11
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	(146)
1.7 Research and development refunds	-	-
1.8 Other - Royalties	(71)	(230)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(791)</b>	<b>(2,473)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets (Patent)	-	(5)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (cash purchased on acquisition)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>(5)</b>
<b>3. Cash flows from financing activities</b>			
3.1	Proceeds from issues of shares	2,308	2,468
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(63)	(63)
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>2,245</b>	<b>2,405</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	679	2,206
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(791)	(2,473)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(5)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,245	2,405
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>2,133</b>	<b>2,133</b>

5. <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	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	333	377
5.2 Call deposits	1,800	302
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,133</b>	<b>679*</b>

\*Balance of proceeds from share issue on 28<sup>th</sup> June 2019 of \$1.288m were received into the bank account on 3 July 2019 and are not included in this report.

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

(233)

Directors fees, Consultancy and Royalties

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

-

-

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	85
9.2 Development	-
9.3 Production	45
9.4 Staff costs (including marketing)	265
9.5 Administration and corporate costs	130
9.6 Other - Royalties	70
Other - Tax	-
<b>9.7 Total estimated cash outflows</b>	<b>595</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	Newkirk, USA	100% working interest	1473	558
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

**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.

Sign here:

  
.....  
Company secretary

Date: 30 October 2019

Print name: Julie Edwards

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly 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 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.