

MEMORANDUM OF UNDERSTANDING

This **MEMORANDUM OF UNDERSTANDING ("MOU")** is made on this 7th day of September 2018:

BY AND BETWEEN:

- A. **VEDANTA LIMITED**, a company incorporated in India, having its registered office situated at 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra and corporate office at DLF Atria, Phase 2, Jacaranda Marg, DLF City ,Gurgaon 122002, Haryana, India (hereinafter referred to as the "**VL**", which expression, unless the context requires otherwise, shall include its successors and permitted assignees);

AND

- B. **INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD**, is an educational Institute established by the Government of India vide notification of the Ministry of Human Resource Development, Government of India dated 6th September, 2016. The Institute is engaged in education and research in various areas of engineering and science and has over decades developed a repository of technical know-how that is of immense value to the industry especially in core Mining, Minerals and allied areas (hereinafter referred to as "**IIT(ISM)**", which expression, unless the context requires otherwise, shall include his successors and permitted assignees).

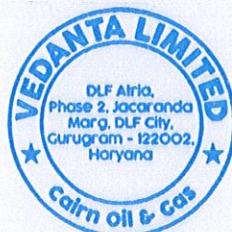
VL and IIT(ISM) individually may be referred to as a "**party**" and together as the "**parties**".

1. Introduction

Cairn Oil and Gas (Vedanta Limited) in joint venture with ONGC, Cairn Energy Hydrocarbons Limited is the operator of Contract area RJ-ON-90/01 in the state of Rajasthan, North West India. The RJ-ON-90/01 block contains number of major oil discoveries, including Mangala, Bhagyam, Aishwarya and Raageshwari fields and various other discoveries. The fluids produced from Mangala, Bhagyam and Aishwarya fields are commingled and processed at a common processing facility called the Mangala Processing Terminal (MPT).

2. Objective: The following are the broad (but not limited to) objectives of this MOU:

- 2.1. To pursue joint research and development projects, as defined and detailed from time to time i.e. both IIT(ISM) and VL shall render necessary consultancy or undertake assignments as per the requirement of either party for research and developmental project pursued by the respective parties on the terms and conditions mutually acceptable to both the parties.
- 2.2. To hold discussion and consultations on various research and developmental issues at VL and/or at IIT(ISM), as the case may be, as per convenience and consent of both the parties.
- 2.3. To utilise facilities and expertise as per requirements of respective parties on mutually agreed terms and conditions on case-to-case basis.
- 2.4. To pursue all other matters of mutual interest in the area of 'technology development'.
- 2.5. To have guidance in CRA (Corrosion Resistant Alloys) selection with regard to the viscous, non-Newtonian, caustic and in cases sulphide prone fluids.



- 2.6. To have an independent and impartial reviews on various asset-integrity issues (both off-shore and on-shore).

3. Commencement and anticipated duration

The MOU shall take effect from the Effective Date i.e. the date on which this MOU is made and signed by both the parties and is valid for a period of 5 years from the Effective Date. Either party can terminate this MOU without assigning any reason by giving three (3) months written notice to the other party.

4. Proposed Areas of Co-operation

The parties will discuss opportunities for cooperation in the following areas with a view to developing and carrying out collaborative activities of common interest:

4.1. Research & Development prospects

- a. VL and IIT(ISM) shall identify potential areas of research & development in various segments of exploration and production activities and other areas as maybe mutually agreed between the parties from time to time;
- b. Research work with the help of Masters (M-tech) and Doctoral students (PhD) under supervision (solo or jointly as agreed) for areas identified by the parties mutually;
- c. Sharing of research facilities to undertake projects related to activities of VL operations;
- d. Submission and implementation of joint research project through external funding; and
- e. Joint research publications.

4.2. Academic collaboration including

- a. Exchange of academic resource materials and publications that are of mutual interest for both parties;
- b. Assessment of training needs of executives/supervisors of VL in various areas of exploration and production of hydrocarbons and imparting training program for short and long durations, both in-campus and off-campus;
- c. Customised courses/training programs for selected students/executives to develop them for business requirements;
- d. Vocational training of students;

4.3. Activities and Projects

- a. Any collaborative activities or projects between the parties will be mutually agreed and subject to further agreement detailing the parties' responsibilities and obligations and the terms and conditions relating to each activity or project;
- b. All such activities and projects will be conducted in compliance with all applicable laws including without limitation, any relevant guidelines or laws enacted in India;
- c. Without limitation, where it is determined to undertake a research project involving a student enrolled in a higher degree by research through IIT(ISM), then, the parties and the relevant student will enter into an agreement containing terms agreeable to both parties.

4.4. Consultation

- a. Each party will appoint a person (representative) ("Authorised Representative") with authority to represent its interests in relation to the day to day conduct of this MOU and any research opportunities arising from it;



- b. The Authorised Representatives will meet at least twice every calendar year or as otherwise agreed between the parties. The location of such meeting of the Authorised Representatives will be decided at each prior meeting;
- c. A party may replace or reappoint its Authorised Representative from time to time by notice in writing to the other party;
- d. Consultation in line with the objectives as depicted in Clauses 2.5 and 2.6 above.

5. Confidentiality

- a. It is anticipated that confidential information may be exchanged between the parties in connection with this MOU.
- b. Each party agrees to maintain the confidentiality of the confidential information of the other party. Any sharing of information should happen only with written approval from Authorised Representative of other party.
- c. Neither party shall use proprietary information received from other party for any purpose other than the objective and task agreed under this MOU. The provisions of this clause shall survive the expiry of termination of this MOU for a period of 5 years.

6. Approach:

- 6.1. To accomplish the objectives outlined in this MOU, it is envisaged that the Authorised Representatives of both the parties shall interact with each other and shall hold discussions for having specific proposals on projects. During such discussions between the Authorised Representatives, all matters of mutual interest of the parties shall be formulated and documented for future references and applications in the course of the research activities.
- 6.2. Further, it is also agreed to hold such discussions and consultation between the Authorised Representatives at least twice in a year, once at IIT(ISM), and once at VL, alternately or as mutually agreed.
- 6.3. The expenses towards travel, boarding and lodging for the visits by the Authorised Representatives by IIT(ISM) envisaged preparing the foundations and subsequently taking up joint projects of mutual interests shall be borne by VL only as per the bills furnished by IIT(ISM), from time to time as agreed.
- 6.4. The parties will agree to form a Joint Review Committee (JRC) within 3 (three) months from the Effective Date, for providing overall guidance and monitor the activities under this MOU. The strength, composition and the number of members from either party can be decided on mutual agreed terms.
- 6.5. The ownership of the assets created under any specific joint project, undertaken under this MOU, shall be decided on case to case basis on mutually agreeable terms and conditions in consultation with the sponsor of such project.

7. Methodology:

- 7.1. IIT(ISM), shall undertake the research projects as per the requirements of the identified project themes. IIT(ISM), shall render necessary consultancy services or as and when requested by VL, subject to the condition that the relevant expertise is available with IIT(ISM) and the terms & conditions are agreeable to both the parties on case-to-case basis.



- 7.2. It is mutually agreed that for any sponsored project including third party sponsored projects, either fully or partially, if jointly undertaken under this MOU, the modality of functioning shall be as follows:
- 7.2.1. Depending upon the scope of responsibilities and administrative convenience, either VL or IIT(ISM) shall function as the project leader. The project leader shall organise and administer the project through the competent authority of VL or IIT(ISM) who shall be the recipient of the entire project funding. Audited statement of accounts shall be submitted as per requirement of sponsoring agency.

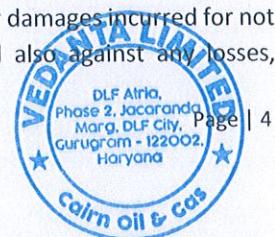
The project leader will be interacting with nominated project co-ordinators from both the parties who would be directly responsible to carry out the project activities as detailed in the project proposal. The project leader shall distribute the project fund as per the detailed project proposal to the project co-ordinators as per mutually agreed terms and conditions and maintain accounts.

VL shall appoint the Project Leader from either party. In case IIT(ISM) is appointed as project leader, any third party liability shall be on account of IIT(ISM) only.

- 7.2.2. All the liaison work with the sponsoring agency shall be done by the project leader.
- 7.2.3. The project leader shall prepare and submit project completion report in consultation with the project co-ordinators from either party and submit the same to the sponsoring agency.
- 7.3. Each party agrees to provide necessary consultancy services or undertake assignments for the research work subject to the availability of expertise for the same and in accordance with the terms & conditions as agreeable to both parties in each of the specified cases. The scope of consultancy services/ undertaking assignments, responsibilities of the parties, financial obligations, etc. will be worked out jointly, on case to case basis.
- 7.4. The laboratory facilities available with either side can be utilised by the other side on case to case basis and on finalisation of terms & conditions.
- 7.5. Each party agrees for submission of progress every month to assigned project leader. The bottlenecks (if any) shall also be intimated from time to time or as agreed otherwise.
- 7.6. Each party agrees to a final timeline of the assigned project, which shall be specified at the outset of such project.
- 7.7. Each party shall specify the fields in which the expertise has been sought for the research and development in such fields.

8. Indemnity

IIT(ISM) shall defend, indemnify and hold VL, its affiliates, contractors, sub-contractors and respective directors, officers, employees and agents of the foregoing harmless from and against any and all costs (including legal costs), losses, damages, expenses, demand, claims, actions or suits that they may suffer or incur whatsoever, including third party claims for damages incurred for not being in compliance with applicable laws, rules and regulations and also against any losses,



damages or expenses suffered or incurred or that may be suffered or incurred by the other Party as a result of or in relation to, any breach or non-fulfilment of any of its representations, undertakings and covenants set out in this MOU.

The terms 'Affiliate" or "Affiliates" included in this MOU, in relation to a Party, shall mean any company or legal entity which controls either directly or indirectly a Party or is controlled directly or indirectly by a Party or is directly or indirectly controlled by a company or legal entity, which directly or indirectly controls a Party. For the purpose of this definition, "control" means ownership or control of at least 50% (fifty percent) of the registered capital of such company or legal entity or the right to exercise more than 50% (fifty percent) of the voting rights of such company or entity. Notwithstanding anything to the contrary in this MOU, in no event shall either party be liable to the other, whether arising under this MOU, tort (including negligence), strict liability or otherwise, for loss of business or anticipated profits, loss of opportunity, loss of reputation and any indirect, consequential, special, punitive, exemplary or incidental loss or damages of any nature arising at any time from any cause whatsoever.

9. Notices

All notices and other communications required or permitted to be given hereunder shall be in writing and shall be delivered personally or sent by bonded overnight courier or mailed by registered mail with postage prepaid or sent by confirmed facsimile at the address for such Party hereto shown below:

If to VL:

DLF Atria, Phase 2, Jacaranda Marg, DLF City,
Gurgaon 122002, Haryana, India
Fax: 0124-4145612

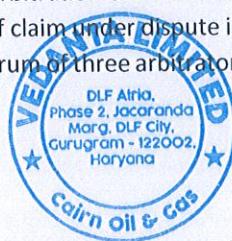
If to IIT(ISM):

Indian Institute of Technology (Indian School of Mines), Dhanbad
Jharkhand, India, 826004
Phone – 0326- 2235203
Fax: 0326-2296563

Attention: Dean (R&D)

10. Governing law

This MOU will be governed in accordance with the laws of India (excluding any of its conflict of law rules which would direct or refer to the laws of another jurisdiction) and shall be subject to the exclusive jurisdiction of courts at New Delhi. Any dispute or difference whatsoever arising between the parties out of or relating to the interpretation, meaning, scope, operation or effect of this MOU or the existence, validity, breach or anticipated breach thereof or determination and enforcement of respective rights, obligations and liabilities of the parties thereto shall be amicably settled by way of mediation. If the dispute is not conclusively settled within a period of twenty-one (21) days from the date of commencement of mediation or such further period as the parties shall agree in writing, the dispute shall be referred to and finally resolved by arbitration under the Arbitration and Conciliation Act, 1996 and rules made thereunder (as amended from time to time), which are deemed to be incorporated by reference into this clause. The arbitration shall be conducted as follows: (i) A sole arbitrator shall be appointed in case the value of claim under dispute is less than ₹50,00,000 (Rupees Fifty Lacs Only) and in any other event by a forum of three arbitrators with one



arbitrator nominated by each Party and the presiding arbitrator selected by the nominated arbitrators. (ii) The language of the mediation and arbitration proceedings shall be English. The seat of arbitration shall be New Delhi, India. (iii) The award made in pursuance thereof shall be final and binding on the parties.

11. Business Ethics

- 11.1. IIT(ISM) shall at all times perform this MOU in a lawful manner consistent with the highest ethical standards and principles, including strict adherence to VL's Code of Business Ethics and the VL's Human Rights Policy including the Modern Slavery Act provisions and in case of breach thereof, the same shall be treated as a breach of this MOU. IIT(ISM) shall not at any time enter into any arrangement with personnel, officers or agents of the VL or its affiliates or the other co-venturers without VL's prior written approval. IIT(ISM) shall maintain records and provide to VL upon request such records and evidences, as VL may reasonably require, confirming IIT(ISM)'s compliance with the obligations under this MOU.
- 11.2. IIT(ISM) confirms having read and understood the Code of Business Ethics and Insider Trading Prohibition Policy of VL, a copy of which has been provided to the IIT(ISM) and which inter alia includes (i) measures for prevention of corrupt practices, unfair means and illegal activities including compliance of all anti-bribery and anti-corruption laws and regulations of India, Foreign Corrupt Practices Act, 1977 of USA and UK Bribery Act, 2010 ; and (ii) adherence to the insider trading prohibition laws and regulations of all jurisdictions where securities of the VL may be listed including but not limited to SEBI (Prohibition of Insider Trading) Regulations, 2015 [SEBI (PIT) Regulations, 2015], which inter alia prohibits the supplier and its employees and associates from trading in the securities of VL based on any 'Unpublished Price Sensitive Information'. IIT(ISM) confirms that it has read the relevant regulations stated above and policies of VL at the time of entering into this MOU and undertakes to abide by the terms thereof to the fullest extent at all times. IIT(ISM) affirms that it has formulated a Code of Conduct and instituted appropriate measures to comply with the requirements of SEBI (PIT) Regulations, 2015 as amended from time to time.
- 11.3. In conducting its business, IIT(ISM) shall not, at any time, either directly or indirectly, in the name of, on behalf of, or for the benefit of VL, its affiliates or other co-venturers, offer, pay, promise to pay, or authorize the payment of any money and/or gift, or offer, give, promise to give, or authorize the giving of anything of pecuniary value or otherwise to (a) any official, employee, agent, or representative of any government, or any government department, agency, or instrumentality thereof; (b) any political party or official thereof, or to any candidate, nominated or otherwise, for political office; or (c) any official, employee or agent of VL, its affiliates or other co-venturers; in each case for the purpose of influencing any act or decision of such official, employee, agent, party, or candidate or inducing such official, employee, agent, party, or candidate to do or omit to do any act in violation of the lawful duty of such official, employee, agent, party, or candidate, or securing any improper advantage for or otherwise promoting the business interests of IIT(ISM) in any way. IIT(ISM) shall require each of its directors, officers, employees, agents, consultants, subcontractors and suppliers to comply with the provisions of this clause.
- 11.4. IIT(ISM) shall declare any conflicts of interest with VL including relationship or financial interest of any nature whatsoever with employees, managers, other suppliers, vendors or stakeholders of VL. IIT(ISM) shall not use the services of any employees of VL, whether directly or indirectly or offer any inducement or give, offer or promise any gifts, reward, bribes, compensation, kickbacks or any favour or thing of value to an employee of VL or any person connected with such employee. IIT(ISM) undertakes that in the event of use of any corrupt practices by VL shall be entitled to terminate MOU forthwith and recover from IIT(ISM), the amount of any loss arising from such



termination. A determination of VL or its nominee to the effect that a breach of the aforesaid undertaking has been committed shall be final and binding on IIT(ISM). The parties agree to comply with the provisions of the UK Bribery Act, 2010 and in case of a breach thereof, the same shall be treated as a breach of this MOU.

- 11.5. If at any time during execution or performance of this MOU, if IIT(ISM) is faced with any undue demand, request for gratification or favour from any employee of VL or a person connection with such employee, IIT(ISM) must report the same immediately at [insert relevant whistle blower email id].
- 11.6. In the event VL believes that IIT(ISM) is engaged in corrupt practices or is acting in contravention of the aforesaid provisions defined in this clause, during the existence of this MOU, VL shall have the right to take appropriate action, which may include the immediate termination of this MOU. IIT(ISM) agrees to abide by the Certificate Of Compliance With Code Of Business Ethics of VL as more specifically set out hereto in Annexure I.

12. **Miscellaneous**

- 12.1. This MOU constitutes the entire agreement and understanding between the parties with respect to its subject matter and overrides and supersedes all previous agreements, representations, written documents, correspondence and understanding of the parties, whether in writing or otherwise.
 - 12.2. Nothing in the MOU shall, or shall be deemed to, create an agency, a partnership or a relationship of employer and employee between the parties.
 - 12.3. If any clause or provision of this MOU is prohibited, invalid or unenforceable in any jurisdiction, that provision will, as to that jurisdiction, be ineffective to the extent of the prohibition, invalidity or unenforceability without affecting or invalidating the remaining provisions of this MOU or affecting the validity or enforceability of that provision in any other jurisdiction, unless it materially alters the nature or material terms of this MOU.
 - 12.4. A failure or delay in exercising any right, power or privilege in respect of this MOU will not be presumed to operate as a waiver, and a single or partial exercise of any right, power or privilege will not be presumed to preclude any subsequent or further exercise, of that right, power or privilege or the exercise of any other right, power or privilege. All waivers under this MOU must be made in writing.
 - 12.5. The Parties shall enter a separate agreement governing the Intellectual Property ownership and commercialization issues.
13. Disclaimer: Any and all deliverables including but not limited to reports, deliverables, know-how, etc. by IIT (ISM) Dhanbad under this MoU shall be on as-is-where-is basis and IIT (ISM) Dhanbad does not makes any representations, conditions, or warranties, either express or implied, with respect to such reports or deliverables. IIT (ISM), Dhanbad and its personnel including faculty, students will not be liable for any damage or loss, whether direct, consequential, incidental, or special which VL or its agents suffer arising from any defect, error or fault of the report or Intellectual Property or deliverables on its failure to perform.

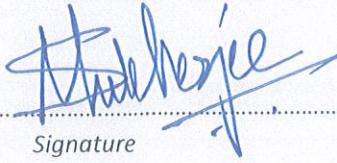


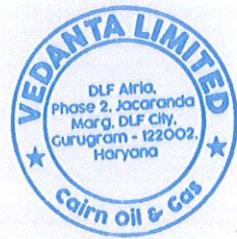
14. IIT (ISM) Dhanbad makes no warranties of any kind either express or implied, to VL or any third party deriving title from the company, as to any matter including, but not limited to, warranty of fitness for particular purpose, or merchantability, exclusivity or results obtained from use.



Signing page

Signed for and on behalf of **Vedanta Limited**
by its duly authorised officer
In the presence of

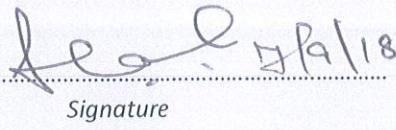

Signature



Signature of witness

Name of witness (in block letters)

Signed for and on behalf of **IIT(ISM)**
By its duly authorised officer
In the presence of


Signature

Signature of witness

Name of witness (in block letters)

ANNEXURE I

CERTIFICATE OF COMPLIANCE WITH CODE OF BUSINESS ETHICS

1. Name of the Party: INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD ("IIT(ISM)").
2. I, as an authorized representative of the IIT(ISM), hereby certify that I have received a copy of the Company's Code of Business Ethics regarding compliance with business ethics and conduct expected as a IIT(ISM) and on behalf of the IIT(ISM) agree to abide by the terms of this.
3. I hereby certify, as of the date hereof, that neither I, nor any of the IIT(ISM)'s members, officers, directors, owners, employees, consultants or agents have, directly or indirectly, offered, paid, promised to pay, or authorized the payment of any money, or offered, given, promised to give, or authorized the giving of anything of pecuniary value, or otherwise, to (a) any member, official, agent or employee of any government, or any department, agency, or instrumentality thereof; (b) any political party or official thereof, or to any candidate, nominated or otherwise, for political office; or (c) any official, employee, agent, owners or members of VL, its Affiliates or other Co-ventures; in each case for the purpose of influencing any act or decision of such official, employee, agent, owner, member, party, or candidate or inducing such official, employee, party, or candidate to do or omit to do any act in violation of the lawful duty of such official, employee, agent, owner, member, party, or candidate, or securing any improper advantage for or otherwise promoting the business interests of the IIT(ISM) in any respect.
4. I hereby certify, as of the date hereof, that neither I, nor any of the IIT(ISM)'s members, officers, directors, owners, employees, consultants or agents have, directly or indirectly, offered, paid, promised to pay, or authorized the payment of any money, or offered, given, promised to give, or authorized the giving of anything of pecuniary value, or otherwise, to any agent or agency or otherwise to any person, organization or third party in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other contract with the VL for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other contract with the VL.
5. I hereby declare, as of the date hereof, that neither I, nor any of the IIT(ISM)'s members, officers, owners or employees, are; (a) public officials or hold government office, except for (name and position in IIT(ISM)'s organisation) at (name of the public or government office); (b) do not and will not employ or otherwise compensate or offer to compensate any public officials, or make or cause another to make any direct or indirect offers or payments to any public officials, for the purpose of influencing or inducing any decision for the benefit of the IIT(ISM); (c) will not employ any subcontractor, consultant, agent or representative in connection with this Contract or Purchase Order without a thorough documented examination of his person, reputation and integrity, and; (d) will not employ any subcontractor, consultant, agent or representative who does not comply with the terms and conduct of the VL's Code of Business Ethics and in the event of any such violation coming to its attention will inform the VL immediately.
6. I hereby certify, as of the date hereof, that neither I, nor any of the IIT(ISM)'s members, officers, directors, owners, employees, consultants or agents have any Conflict of Interest (as defined in ITT).



In the event, VL finds any non-compliance to any of the above undertaking(s), I acknowledge the right of the VL to declare the Contract null and void.

Yes No

(If you checked 'No' above, then you must attach a separate sheet of paper explaining your answer.)

Signature:

Deepti

Date: 7/9/18

Name:

SHACIVAHAN

Position: Professor & Dean (Research & Development)

