MEMORANDUM OF UNDERSTANDING

BETWEEN

UNIVERSITI TEKNOLOGI MALAYSIA

AND

UNIVERSITAS ISLAM RIAU

DATED THIS

26 AUGUST DAY OF 2019

BETWEEN

UNIVERSITI TEKNOLOGI MALAYSIA (hereinafter referred to as "UTM"), an institution of higher learning established under the Universities and University colleges Act 1971, whose address is at Office of the Vice Chancellor, Universiti Teknologi Malaysia, 81310 UTM Skudai and shall include its lawful representatives and permitted assigns;

AND

UNIVERSITAS ISLAM RIAU (hereinafter referred to as "UIR"), whose address is at Jl. Kaharuddin Nasution 113 Pekanbaru Riau Indonesia and shall include its lawful representatives and permitted assigns;

UTM, & UIR shall be hereinafter collectively referred to as "Parties"

WHEREAS

- A. UTM is a research university and an established university which strives to enhance and strengthen its capacity to train and provide its students with various practical and industrial skills and expertise and has taken various initiatives to compliment its educational excellence in the field of information technology and technology solutions.
- B. UIR is a private higher education institution which officially accredited and/or recognized by the Kementerian Riset, Teknologi, dan Pendidikan Tinggi (Ministry of Research, Technology and Higher Education of the Republic of Indonesia).
- C. The Parties are desirous of entering into this MoU to declare their respective intentions and to establish a basis of cooperation and collaboration between the Parties upon the terms as contained herein.

1. AREAS OF CO-OPERATION

- 1.1 The Parties agree to collaborate in the areas of:
 - a) Developing the curriculum and exchanging of scholarly publications subject to the approval of both parties;

- b) Developing the academic and training courses and programs subject to the approval of both parties,
- c) Joint Research and Development (R&D) in Renewable Energy or other potential field and topics;
- d) Facilitate the students/academics to further postgraduate studies at UIR or at UTM, from time to time, as part of the individual student's academic progression /programme undertaken by the said students;
- e) Activities of exchange of academics include study tour, conducting research and/or supervision student project, staff secondment for improving and research, attending seminars, colloquiums and academic discussions.
- f) Activities of students exchange include study tour, courses attendance and research.
- 1.2 The Parties to this MoU may continue discussions and communication on the areas as identified in sub-clause 1.1 in respect of their implementation.
- 1.3 In the event the Parties so desire, they may enter into a separate legally binding agreement in respect of any area in sub-clause 1.1 subject to terms and conditions as mutually agreed by both Parties.
- 1.4The Parties acknowledge that any agreement that may result from further negotiations will be subject to approvals of their respective organizations, which approvals may be withheld at their sole discretion.

2. DURATION AND TERMINATION

- 2.1 This MoU shall remain in effect for five (5) years from the effective date or until terminated by either party with three (3) months written notice.
- 2.2This MoU may be extended for a further period as may be agreed in writing by the Parties.
- 2.3 Where such termination occurs, the provision of this Memorandum shall continue to apply to on-going activities until their completion.

3. FINANCIAL ARRANGEMENTS

3.1 This MoU shall not give rise to any financial obligation by one Party to the other.

3.2 Each party shall bear its own cost and expenses in the implementation of this MoU.

4. CONFIDENTIALITY

- 4.1 Each Party shall undertake to observe the secrecy of confidential information received from or supplied to the other Party during the period of implementation of this MoU other agreements made pursuant to the MoU.
- 4.2 Each Party agrees to use the same means it uses to protect its own confidential proprietary information but in any event not less than reasonable means, to prevent the disclosure and to protect the confidentiality of any confidential information.
- 4.3 For purpose of this MoU, "confidential information" means any information whether prior to or hereinafter disclosed by a Party (the Disclosing Party) to the other Party (the Receiving Party) of this MoU involving technical, business, marketing, policy, know-how, planning, project management and other information, data and/or solutions in any form, including but not limited to any information which is designated in writing to be confidential or by its nature intended to be for the knowledge of the Receiving Party or if orally given, is given in the circumstances of confidence.
- 4.4 Notwithstanding the provisions of sub-clauses 4.1 and 4.2, it will not prevent either party from disclosing confidential information which:
 - (i) belongs to such party;
 - (ii) is already known by the recipient party without an obligation of confidentiality;
 - (iii) publicly known or becomes publicly known through no unauthorized act of the recipient party;
 - (iv) rightfully received from a third party;
 - independently developed by the recipient party without use of the other party's confidential information;
 - (vi) disclosed without similar restrictions to a third party by the party owning confidential information;
 - (vii) approved by the other party for disclosure; or
 - (viii) required to be disclosed pursuant to a requirement of a governmental agency or law

so long as the disclosing party provides the other party with notice of such requirement prior to any such disclosure.

4.5 Both Parties agree that the provisions of this Clause shall continue to be binding between the Parties notwithstanding the termination of this MoU for a period of two (2) years from the date of disclosure of confidential information unless.

5. PROTECTION OF INTELECTUAL PROPERTY RIGHTS

- 5.1 The protection of intellectual property rights shall be enforced in conformity with the respective national laws, rules and regulations of the Parties and with other international agreements signed by both Parties.
- 5.2The use of the name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.
- 5.3 Notwithstanding anything in paragraph 1 above, the intellectual property rights in respect of any technological development, and any products and services development, carried out
 - (i) jointly by the Parties or research results obtained through the joint activity effort of the Parties, shall be jointly owned by the Parties in accordance with the terms to be mutually agreed upon; and
 - (ii) solely and separately by the Party or the research results obtained through the sole and separate effort of the Party, shall be solely owned by the Part concerned.

6. SETTLEMENT OF DISPUTES

- 6.1 Any difference or dispute between the Parties concerning the interpretation, implementation and/or application of any of the provisions of this MoU shall first be settled amicably through mutual consultation and/or negotiations between the Parties.
- 6.2 In the event of non-resolution, reference shall be made to a mediator jointly appointed by the Parties who shall mediate the dispute or difference in question.

7. NON CONTRACTUAL NATURE OF RELATIONSHIP

- 7.1 The Parties agree that this MoU represents their mutual understanding and is not intended nor shall be deemed to be a contract and shall not give rise to any rights and liabilities under a contract except with respect to the obligation of non-disclosure.
- 7.2 Nothing contained herein shall be construed so as to constitute a joint venture partnership or formal business organization of any kind between the Parties or so to constitute either Party as the agent of the other.
- 7.3 The Parties acknowledge that this MoU does not in any way give rise to any right or permission to use or to be associated with each party's intellectual property.

8. REVISION, VARIATION AND AMENDMENT

- 8.1 Either Party may request in writing a revision, variation or amendment of this MoU.
- 8.2 Any such revision, variation or amendment agreed to by the Parties shall be in writing and shall form part of this MoU.
- 8.3 Such revision, variation or amendment shall come into force on such date as may be determined by the Parties.
- 8.4 Any revision, variation or amendment shall not prejudice the implementation of any project, activity or co-operation arising from or based on this MoU before or up to the date of such revision, variation or amendment.

9. SUPERVENING EVENTS

- 9.1 Each Party reserves the right for reasons of national security, national interests, public order or public health to suspend temporarily, either in whole in part, the implementation of this MoU which suspension shall take effect immediately after notification has been given to the other Party.
- 9.2 Notwithstanding sub-clause 9.1, should any other event occur which hinders or restricts the implementation of this MoU, the Parties shall use their best endeavour to agree upon such action, as may be necessary and equitable, to remove the cause of such event.

10. NOTICES

Every notice, request or any other communication required or permitted to be given pursuant to this MoU shall be in writing and delivered personally or sent by registered or certified post or via air mail or via courier or facsimile or by email (which shall be acknowledged by the other Party) to the Parties at their address and facsimile number as stated below:

To : UNIVERSITI TEKNOLOGI MALAYSIA
Address UTM-MPRC INSTITUTE FOR OIL & GAS

N29A, Jalan Lengkuk Suria Universiti Teknologi Malaysia 81310 Skudai, Johor Bahru

Attn. to : Prof. Dr. Rahmat Mohsin

Telephone No.: +607-5536363 Fax No : +607-5545667 E-mail : rahmat@utm.my

To : UNIVERSITAS ISLAM RIAU Address : Jl. Kaharuddin Nasution

no.113 Pekanbaru-Indonesia

Attn. to : Dr.-Eng, Muslim.
Telephone No.: +62-761-674-674

E-mail : muslim@eng.uir.ac.id

(THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK)

SIGNATORY ON BEHALF OF THE UNIVERSITY

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective organizations, signs this MoU on the date as above written.

Signed by
For and on behalf of
UNIVERSITI TEKOLOGI MALAYSIA

Signed by
For and on behalf of
UNIVERSITAS ISLAM RIAU

PROF. DATUK IR. DR. WAHID OMAR

Vice Chancellor Universiti Teknologi Malaysia PROF. DR. H. SYAFRINALDI, S.H., M.C.L

Rector

Universitas Islam Riau

In the presence of

PROF. DR. RAHMAT MOHSIN

Director

UTM-MPRC Institute For Oil & Gas

In the presence of

DR. ENG. MUSLIM ABDURRAHMAN

Head of Petroleum Engineering

Engineering Faculty
Universitas Islam Riau

RESEARCH AGREEMENT

This Research Agreement (The "Agreement") is made on this by and between,

EPTEMBER 2020 0013NE0015C0 ТНОИИГНОИИГНОИ

BETWEEN

UNIVERSITI TEKNOLOGI MALAYSIA (hereinafter referred to as "UTM"), an institution of higher learning established under the Universities and University colleges Act 1971, whose address is at Universiti Teknologi Malaysia, 81310 UTM Skudai, and shall include its lawful representatives and permitted assigns;

and

UNIVERSITAS ISLAM RIAU (hereinafter referred to as "UIR"), whose address is at Jl. Kaharuddin Nasution 113 Pekanbaru Riau Indonesia and shall include its lawful representatives and permitted assigns;

and

PT. SPR LANGGAK, (hereinafter referred to as "SPRL") an oil company that responsible in operating Langgak Oil Field, Riau, that produces Sumatera Light Crude (SLC). The head office located in AD Premier 8th floor, Jalan TB Simatupang Np. 5 Ragunan – Pasar Minggu, Jakarta Selatan 12550 (hereinafter referred to as "SPRL").

UTM, **UIR** & **SPRL** shall be hereinafter collectively referred to as "Parties"

WHEREAS

- a) **UTM** is a research university and an established university which strives to enhance and strengthen its capacity to train and provide its students with various practical and industrial skills and expertise and has taken various initiatives to compliment its educational excellence in the field of information technology and technology solutions.
- b) **UIR** is a private higher education institution which officially accredited and/or recognized by the Kementerian Riset, Teknologi, dan Pendidikan Tinggi (Ministry of Research, Technology and Higher Education of the Republic of Indonesia).
- c) **SPRL** is an oil company providing necessary field data to support the research.
- d) The Parties intend to cooperate with each other by conducting joint study and develop collaborative undertakings in improving oil production based on laboratory research and field application (hereinafter referred to as "Research Project").

e) The Parties are desirous of entering into this Agreement to declare their respective intentions and to establish a basis of cooperation and collaboration between the Parties upon the terms as contained herein.

NOW IT IS HEREBY AGREED AS FOLLOWS:

ARTICLE 1 Interpretations

The headings contained in this Agreement are solely for the purpose of reference, are not part of the agreement of the Parties and shall not in any way affect the meaning or interpretation of this Agreement.

The following rules of interpretation apply unless the context otherwise requires:

- i) The singular includes the plural and vice versa and a gender includes all genders.
- ii) A reference to a person includes a body corporate, an unincorporated body or other entity and vice versa.
- iii) A reference to a Section, Article, Schedule or Appendix is to a section or article of or appendix or schedule to this Agreement.
- iv) A reference to any Party to this Agreement or any other agreement or document includes the party's successors and permitted assigns.
- v) A reference to any agreement or document is to that agreement or document as amended, novated, supplemented, varied or replaced from time to time.

The Schedules or Appendices to this Agreement constitute an inseparable part of this Agreement and are binding on the Parties. However, if there should be a conflict between the Schedules or Appendices and this Agreement, the parties shall consult to resolve the inconsistency. However, if such inconsistency cannot be resolved, this Agreement will prevail.

ARTCLE 2 Purpose of this Agreement

The purpose of this Agreement is to define:

- The relationship between the Parties for the performance of the Research Project, the funding of the Research Project and their rights and obligations under this Agreement; and
- ii) The role and duties of **UTM, UIR** and **SPRL** (as defined hereinafter) under this Agreement.

ARTICLE 3 Role of the Parties

i) **UIR** and **UTM** will fund the Research Project by allocating such amounts as described in Appendix 4 for the Research Project defined in Article 4.

4.

- ii) **UTM, UIR** and **SPRL** shall at its discretion, provide technical support and access in the course of carrying out the Research Project, at all reasonable hours.
- iii) **UTM, UIR** and **SPRL** shall be responsible for the performance for carrying out works and investigations under the Research Project as defined and set out in Article 4.
- iv) **UTM** and **UIR** shall nominate an authorised officer each to coordinate the Research Project throughout the term of Agreement. The identity of the said officer shall be given to the other Parties before the commencement of this Agreement. Any change of the said officers shall be informed to the other Parties forthwith.
- v) **UTM, UIR** and **SPRL** shall make available to the Parties from time to time all resources, data and research material related to the Research Project and shall permit identified personnel for the Parties access thereto at all reasonable hours to resource and research centres for the purpose stated in this Agreement.
- vi) Upon completion of each Research Project, **UTM**, **UIR** and **SPRL** shall prepare a final report and exchange all research findings, data and any research material in relation thereto within fourteen (14) days from the date of the completion of the Research Project.

ARTICLE 4 The Research Projects

The Parties agree to carry out the following Research Project as described in Appendix 4 of this Agreement.

The details of each Research Project which shall be undertaken by **UTM**, **UIR** and **SPRL** are attached hereto in Appendix I and Appendix 4. Such details shall include researchers involved, resources to be supplied by **UTM**, **UIR** and/or **SPRL** the duration of the research and any other relevant details.

ARTICLE 5 Confidentiality

Access to information on the subject of the research shall be strictly limited by the Parties to the scientific and technical personnel participating in the Research Project defined in Appendix.

The Parties shall take all reasonably practicable measure to secure data obtained from the common research and/or from another Party.

Except with the other Party's written agreement neither Party shall disclose to any third Party any information obtained from the other Party in any document or correspondence marked 'Confidential' or any trade or business information obtained in confidence from the other Party during a visit to that other's place of business work offices or laboratories in connection with this Agreement.

Any such information disclosed by any Party shall be reduced in writing within thirty (30) days of disclosure to the other Party.

The obligation in Article 5 shall be in force form the commencement date of this Agreement and after expiry or termination of this Agreement and shall remain in force for a period of ONE (1) year except for:

- a. Information that at the time of disclosure is in the public domain;
- b. Information that after disclosure is published or otherwise becomes part of the public domain through no fault of the any of parties;
- c. Information that was in the possession of the party at the time of disclosure and was not acquired from the other party under an obligation of confidentiality;
- d. Information that a party provides written permission to disclose; or
- e. Information that is required by law to be disclosed.

The Parties agree that all aspects of the Know-how, technology patents, designs and other intellectual property rights to which, whether as owner or a licensee shall be treated as confidential information.

The Parties agree that all results issued from the Research Project shall be treated as confidential information.

ARTICLE 6 Publication

The Parties recognize that the Research Team may wish to publish in reputable scientific journals containing data obtained from the Research Project or make an oral presentation containing data obtained from the Research Project. Accordingly the Research Team shall have the right to publish or to present such papers provided that before the Research Team submits any such paper to such journal or such conference the Research Team shall share to get agreement on the content of the paper to ensure that no information is disclosed in the paper which would prejudice the commercial interest of any other Parties in the data or the novelty of any invention to which the Parties are entitled under this Agreement. The decision shall be provided within fifteen (15) days of the date on which the paper is submitted to it for scrutiny. The paper should not unreasonably withhold, and a rejection should be justified. If any other parties fails to answer within fifteen (15) days their assent shall be taken for granted.

Furthermore, **UIR** or **UTM** may delay publication or disclosure for up to 18 – month period after publication or disclosure request if the information contained therein is to be protected by industrial property legislation. Consequently, any Party may eliminate or modify information whose disclosure could prejudice the industrial and commercial uses of the results of the Research Project.

The use of the name, logo and/or official emblem of any of the Parties on any publication, document and/or paper is prohibited without the prior written approval of either Party.

ARTICLE 7 Patents and Other Rights

The Parties agree to notify each other of any invention made by the Research Team in writing within thirty (30) days after receipt of an invention disclosure from the inventor.

The Parties shall jointly own all rights to all inventions, including computer software, conceived and reduced to practice solely under this Agreement.

UTM and **UIR** shall indicate to the **SPRL** in writing, within ninety (90) days of receipt of invention disclosure, whether it wishes to file a patent application on the invention, if applicable, or whether it wishes to register copyrightable material. In case **SPRL** waives its rights to file, prosecute, maintain or defend a patent application or register copyrightable material, or does not respond, in writing, within above-mentioned ninety (90) days, the other Parties shall have all rights to file such applications and shall bear all related expenses.

The Parties further agree:

- 1. That the names of inventors shall be mentioned, in accordance with legal requirements, in patent filings;
- 2. That their respective personnel cited as inventors shall provide all signatures and satisfy all formalities necessary to the filing, prosecution and maintenance of said patent; and
- That all necessary measures, relative to the personnel participating in the work covered by this Agreement, will be taken to ensure that the inventions generated within said Agreement shall be classified as Research Project-related inventions.

Neither Party shall do any act, which might prejudice the novelty of an invention covered by Clause 7.

ARTICLE 8 Property of Equipment

The Parties shall put the respective equipment obtained by the funding or supplied by any Parties at disposal to the Research Team for the Agreement Period and shall remain responsible for any damages and/or loss to the equipment howsoever and whatsoever arising and shall underwrite the suitable insurance policy for covering such equipment and any third party liabilities with the respective waiver of recourse from the insurers (wherever necessary). The insurance policy of the equipment will covered by the funding.

At the end of the Research Project, equipment shall return to the respective owner who obtained the equipment whatever means. If the equipment shall return to were obtained

4

from the funding the parties and their respective insurers shall not carry on any recourse against the Research Team to repair or renovate the equipment.

Therefore, each Party shall be liable for and shall defend, indemnify and hold harmless the other Parties from and against each and every claim which arises out of or in any way relates to loss or damage to its own property and arising out of or relating directly or indirectly to the performance of this Agreement and whether or not resulting from its negligence in any form or its respective officers, employees, servant or agents.

ARTICLE 9 Agreement Period

This Agreement is deemed to have commenced on upon signing of the Agreement and thereafter shall continue to in full force for duration of TWO (2) years. This Agreement may be renewed by the Parties for such period and on such terms and conditions as may be mutually agreed between the Parties.

ARTICLE 10 Termination

This Agreement may be cancelled by any of the Parties in the event of non-performance of one or several of the obligations contained in the Agreement's various clauses. Such termination becomes effective ninety (90) days after the dispatch of a certified letter with return receipt, explaining the reasons for the complaint, unless within this time period the non-performing Party/Parties has satisfied his obligations or provided evidence of a hindrance resulting from force majeure. The exercise of this termination right does not exonerate the non-performing Party/Parties from fulfilling its contractual obligations until the date the cancellation came into effect nor of damages that may have been suffered by the complainant because of the early termination of the Agreement.

The Parties shall mutually discuss on the effects of termination on ongoing activities, the funding, the requirement of any final accounts statements or final reports and other matters effecting the termination of this Agreement.

ARTICLE 11 Disputes, Proper Law and Jurisdiction

This Agreement shall be governed by and construed and enforced in accordance with the substantive law of Malaysia as to all matters, including, without limitation, matters of validity, construction, effect, performance and remedies.

The Parties shall strive to resolve on an amicable basis any dispute that may arise between them relating to the terms of this Agreement. In the event that the Parties cannot settle a dispute between them the matter shall be finally settled in accordance with the Rules of Asian International Arbitration Centre, by one or more arbitrators appointed in accordance with the said Rules. The place of arbitration shall be Malaysia and the arbitration language shall be English.

6

ARTICLE 12 Limitation of Liability

Notwithstanding any other provisions of this Agreement, neither Party shall be liable to the other in contract, tort (including negligence) in respect of any loss, damage or claim howsoever arising and whether or not caused by negligence, for loss of profits (actual or anticipated), loss of the use of capital or revenue, facilities downtime, loss by reason of shutdown (partial or complete) of operations, non-operation or increased expense of operation through delays or otherwise, costs of money, claims of customers or any consequential loss or damage.

ARTICLE 13 Force Majeure

Neither Party shall be liable to the other Party for any loss or cost or otherwise for any delays and/or failure in the performance of any or all of their respective obligations hereunder, if such delay and/or failure is due to force majeure which shall mean unforeseeable events caused beyond the reasonable control and without the fault of negligence of the Parties and could not have been prevented or overcome by the exercise of due diligence by the said Party including but not limited to, occurrence of consequences arising out of the Acts of God, public enemies, forces of nature, fire, lightning, rebellion, tempest, riots, civil commotion, authority of law (including but not limited to, the withdrawal of any governmental authorization required by either Party to carry out the terms of this Agreement and issuance of a directive from any relevant authority which is competent to do so to cease carrying out the terms of this Agreement), either Party hereto may elect by notice in writing to determine this Agreement and thereupon all claims hereunder except those which have arisen prior to the date of such election shall be at an end.

ARTICLE 14 Miscellaneous

Relation of the Parties

The Parties to this Agreement acknowledge that, pursuant to the terms and conditions of this Agreement, each of them is no more than the independent contractor of the other Party to this Agreement. This Agreement shall not constitute any Party the legal representative of agent of the other, nor shall any Party have the right or authority to assume, create or incur any liability or obligation of any kind express or implied, against or name or on behalf of any other Party.

Injunctive Relief

The Parties acknowledge that any material breach of any provisions of Article 5 and 6 of this Agreement would entail irreparable injury to the other Party of this Agreement or its Affiliates and that in addition to other remedies, this Party and its Affiliates shall be entitled to injunctive relief issued by any court or competent jurisdiction restraining any breach of the Party and those with whom it is in active concert, and other equitable relief to prevent any such actual, intended or likely breach, pending arbitration pursuant to Article 11.

Successors and Assigns

This Agreement and the rights and obligations hereunder shall be binding upon and shall inure to the benefit of the Parties and their respective successors and permitted assigns; provided, however, that except as otherwise expressly provided herein this Agreement may not be assigned nor transferred, either in whole or in part, by operation of law or otherwise by a Party, without prior written consent of the other party.

Amendment, Modification and Waiver

This Agreement may be amended, modified or supplemented only by written agreement of the Parties. Either Party hereto may waive compliance by the other Party with any term or provision hereof only by an instrument in writing. The waiver by either Party hereto of a breach of any term or provision of this Agreement shall not be construed as a waiver of any subsequent breach. The failure by either Party to enforce at any time of for any period any one or more of the terms or conditions of this Agreement shall not waiver of them or of the right at any time subsequently to enforce all the terms and conditions of this Agreement.

As further assurance, should either Party request an amendment to this Agreement in light of changed circumstances affecting such Party, the Parties agree to negotiate in good faith in order to reach agreement on such amendment.

Legal Enforceability

Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof. Any such prohibition or unenforceability shall not invalidate or render unenforceable such provision in any other jurisdiction. The extent provided always that it is the intention of the Parties that any provision herein shall be read and interpreted in the widest possible sense to the extent permitted by law and to include such implied terms as may be necessary to render the provision enforceable. Any mandatory provision of law applicable to this Agreement shall not, insofar as possible, invalidate or render unenforceable any other provision thereof to the extent that such provision may be construed in a manner which is consistent with such provision of law.

Entire Agreement

This Agreement, including the annexes, schedules and exhibits and the agreements and other documents referred to herein and incorporated herein by reference, constitute the entire agreement between the Parties with respect to the subject matter thereof and shall supersede all previous agreements, negotiations, commitment and writings with respect to such subject matter.

Cost and Expenses

Each Party shall bear its own costs in preparing this Agreement. UTM shall be responsible for the stamp duty of this Agreement and will be covered by the funding.

Notices

All notices, demands, requests and consents hereunder shall be in writing and shall be deemed to have been duly given, at the time of delivery, if delivered, or after forty eight (48) hours from the time of mailing, if mailed by registered or certified mail and addressed to :

If to **UTM**:

To : UNIVERSITI TEKNOLOGI MALAYSIA

Address : UTM-MPRC INSTITUTE FOR OIL & GAS

N29a, Jalan Lengkuk Suria Universiti Teknologi Malaysia 81310 Skudai, Johor Bahru

Attn. to : Assoc. Prof. Dr. Agus Arsad

Telephone No. : +607-5536363
Fax No : +607-5545667

E-mail : <u>agus@utm.my</u>

If to UIR:

To : UNIVERSITAS ISLAM RIAU

Address : Jl. Kaharuddin Nasution

No.113 Pekanbaru-Indonesia

Attn. to : Dr.-Eng, Muslim Abdurrahman.

Telephone No. : +62-761-674-674

E-mail : muslim@eng.uir.ac.id

If to SPRL:

To : SPR LANGGAK:

Address : SPR Langgak, Plaza Bapindo, Citibank Tower, 10th

Jalan Jend. Sudirman Kav 54-55. Jakarta 12190,

Indonesia

Attn. to : M. YASIN ABDUL FATAH

Title : Exploration and Development Manager

Telephone No. : +62 21 22708945

E-mail : myabdul@sprcorp.com

IN WITNESS WHEREOF the Parties hereto have hereunto set their hands the day and first above written

Signed by for and on behalf of UNIVERSITI TEKNOLOGI MALAYSIA UNIVERSITAS ISLAM RIAU

PROF. DATUK IR. DR. WAHID BIN OMAR
VICE CHANCELLOR

In the presence of The presence

Research Institute and Community

Services 1/

Signed by for and on behalf of

UTM-MPRC Institute for Oil and Gas

PT SPR LANGGAK

DIRECTOR

Ir. IKIN FAIZAL, MT DIRECTOR

PT. SPR LANGGAK

In the presence of

MUHAMMAD YASIN ABDUL FATAH EXPLORATION AND DEVELOPMENT MANAGER

PT SPR LANGGAK

R Langgak

Appendix 1 Scope of Work for Research and Development

The work scope of research shall include but not limited to the following and subject to agreement:

Responsibilities and Protocol

The Parties have agreed to conduct Research Study to enhance and improve oil production based on laboratory research and field application with the following scope:

- SPRL will provide relevant data and resources to allow the Parties to conduct the laboratory research and field application. Field trials may be conducted by the Parties at the availability of Langgak's resources to enable the Consortium to send its research associates, research assistants, and/or student to conduct field visits for a certain period of time.
- UIR will act as representative of the Consortium to coordinate the research as well as communications between the Parties.
- UTM will provide necessary resources to conduct activities as well as to make available its laboratory for mutual laboratory work between the Parties in accordance to this Agreement.
- The Parties may develop specific exchange activities to implement the mutual work set forth in this Agreement. These activities shall in every case be subject to mutual consent and the availability of adequate resources of each Party.
- The result of the Research Study shall be made available to the Parties.

Basis of Design

- To ensure the product (ASP/Polymer Nanofluid/Polymer Nanomaterials) able to withstand with the current application in enhanced oil recovery (EOR) operation at SPRL, Riau Indonesia.
- To ensure data monitoring and collecting are applied using wireless and integrated system.

Field Test

- Upon completion of the EOR project, the tested products will be applied at field trial and monitored for ensuring the suitable to increase the oil production.
- Data collection and monitoring will be setup and conducting at SPRL Oil Well.
- Smart monitoring and data collection at field trial will be conducted frequently.

Potential Commercialization

- The discussion on EOR application with SPRL are continuously to ensure the suitable of the materials to increase the oil production at SPRL field.
- Smart monitoring and data collection.

Reporting

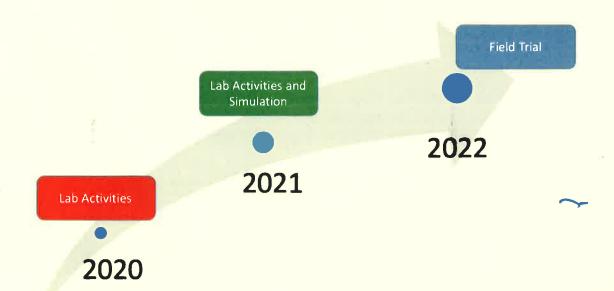
- To prepare a report on every milestone
- To produce a final report covering all aspects, workflows, methodology and result, conclusion and recommendation derive from the research or project

7

Appendix 2 Project Milestones

- 1. Completion of preparation of APS/Polymer Nanofluid/Polymer Nanoparticles.
- 2. Completion of data monitor and collector setup at area of SPRL oil well.
- 3. Completion of Suitability study APS/Polymer Nanofluid/Polymer Nanoparticles.
- 4. Completion of conducting and collecting of data at SPRL oil well.
- 5. Completion of analysis at field trial stage.
- 6. Presentation will be conducted on every achieved milestone and completion report.
- 7. Final full report covering all aspects, workflow, methodology, result, conclusion and recommendation derive from the project.

Appendix 3 Project Gantt Chart



Appendix 4

Project and Project Budget

Project Leader	Project Title	Duration	Amount
Assoc. Prof. Dr. Agus Arsad/Assoc. Prof. Dr. Muslim Abdurrahman	Chemical Enhanced Oil Recovery – Study of Alkaline-Surfactant Polymer (ASP) / Polymer Nano Material / Bioresource Polymer Nanofluid for Enhanced Oil Recovery	2 Years	RM40,000.00
Prof. Dr. Radzuan Junin/Assoc. Prof. Dr. Muslim Abdurrahman	Data Monitoring for EOR Investigation at Field Trial Stage	2 Years	RM40,000.00
Prof. Ir. Dr. Sharul Kamal Abdul Rahim/Dr. Evizal Abdul Kadir	Smart Monitoring and Data Collection at Oil Well and Production.	2 Years	RM40,000.00



Appendix 5 Research Team

A dedicated and qualified research team from Universiti Teknologi Malaysia, Universitas Islam Riau and PT SPR Langgak will be the implementer of this project. The team is composed of:

Members:

- Prof. Dr. Rahmat Mohsin (UTM-IFOG)
- Prof. Dr. Radzuan Junin (UTM-IFOG)
- Assoc. Prof. Dr. Agus Arsad (UTM-IFOG)
- Assoc. Prof. Dr. Zulkifli Abdul Majid (UTM-IFOG)
- Ir. Dr. Mohammad Abbas Ahmad Zaini (UTM-CLEAR)
- Dr. Kamarizan Kidam (UTM-IFOG)
- Dr. Norhana Mohamed Rashid (UTM-IFOG)
- Nor Eman Binti Ismail (UTM-IFOG)
- Siti Rahmah Binti Suradi (UTM-IFOG)
- Prof. Dr. Jafri Din (UTM-WCC)
- Prof. Ir. Dr. Sharul Kamal Abdul Rahim (UTM-WCC)
- Prof. Madya Dr. Razali Ngah (UTM-WCC)
- Assoc. Prof. Dr. Evizal Abdul Kadir (UIR)
- Assoc. Prof. Dr. Eng. Muslim Abdurahman (UIR)
- Fiki Hidayat, M.Eng (UIR)
- Novia Rita, MT (UIR)
- M. Khairul Afdhol, MT (UIR)
- Tomi Erfando, MT (UIR)
- Mohammad Yasin Abdul Fatah. MSc. (PT. SPR Langgak)
- Ivan Efriza. MSc. (PT. SPR Langgak)
- Dimas Hadi Prabowo, MSc. (PT. SPR Langgak)

= 1

UNIVERSITAS ISLAM RIAU

LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT

Alamat: Jalan Kaharuddin Nasution No. 113, Marpoyan, Pekanbaru, Riau, Indonesia - 28284 Telp. +62 761 72126 Fax. +62 761 674834 Email: Ippm@uir.ac.id Website: www.lppm.uir.ac.id



KONTRAK PENELITIAN
BERSAMA UIR- UTM TAHUN 2020
NOMOR: 01/KONTRAK/LPPM-UIR-1-2020



Pada hari ini Kamis tanggal 01 bulan Januari 2020 tahun Dua Ribu Dua Puluh, kami yang bertandatangan dibawah ini :

- 1. Dr. Evizal Abdul Kadir, S.T., M.Eng
- Ketua Lembaga Penelitian, Universitas Islam Riau, dalam hal ini bertindak untuk dan atas nama Universitas Islam Riau, yang berkedudukan di Jl. Kaharuddin Nasution No. 113 P. Marpoyan, Pekanbaru, untuk selanjutnya disebut **PIHAK PERTAMA**.
- 2. Dr. Evizal Abdul Kadir, S.T., M.Eng
- : Dosen Fakultas Teknik Universitas Islam Riau, dalam hal ini bertindak sebagai pengusul dan Ketua Pelaksana Penelitian Tahun 2020/2021 untuk selanjutnya disebut **PIHAK KEDUA**.

PIHAK PERTAMA dan **PIHAK KEDUA**, secara bersama-sama sepakat mengikatkan diri dalam suatu Kontrak Penelitian Kerjasama Tahun 2020 dengan ketentuan dan syarat-syarat sebagai berikut:

Pasal 1 Ruang Lingkup Kontrak

PIHAK PERTAMA memberi pekerjaan kepada PIHAK KEDUA dan PIHAK KEDUA menerima pekerjaan tersebut dari PIHAK PERTAMA, untuk melaksanakan dan menyelesaikan Penelitian bersama UIR-UTM Tahun Anggaran 2020/2021 dengan judul "Data Monitoring foe EOR Investigation at Field Trial Stage".

Pasal 2 Dana Penelitian

(1) Besarnya dana untuk melaksanakan penelitian dengan judul sebagaimana dimaksud pada Pasal 1 adalah sebesar MYR 40.000,- (empat puluh ribu ringgit malaysia) sudah termasuk pajak.

Pasal 3

Tata Cara Pembayaran Dana Penelitian

- (1) **PIHAK PERTAMA** akan membayarkan Dana Penelitian kepada **PIHAK KEDUA** secara bertahap dengan ketentuan sebagai berikut:
 - a. Pembayaran Tahap Pertama sebesar 50% dari total dana penelitian yaitu 50% x MYR 40.000 = MYR. 20.000 (dua puluh ribu ringgit malaysia) yang akan dibayarkan oleh PIHAK PERTAMA kepada PIHAK KEDUA setelah PARA PIHAK membuat dan melengkapi usulan pelaksanaan penelitian yang memuat judul penelitian, halaman pengesahan, ringkasan, pendekatan dan metode penelitian yang digunakan, data yang akan diperoleh, anggaran yang akan digunakan, dan tujuan penelitian berupa luaran yang akan dicapai (sesuai pedoman sistematika dan muatan proposal penelitian). Selanjutnya PIHAK KEDUA mengunggah usulan penelitian yang telah diseminarkan .
 - b. Pembayaran Tahap Kedua sebesar 50% dari total dana penelitian yaitu 50% x MYR 40.000 = MYR. 20.000 (dua puluh ribu ringgit malaysia), dibayarkan oleh PIHAK PERTAMA kepada PIHAK KEDUA setelah PIHAK KEDUA melaporkan Laporan Akhir Pelaksanaan Penelitian dan menyerahkan hard copy sebanyak dua rangkap untuk arsip LPPM dan Pihak UTM.

(2) Dana Penelitian sebagaimana dimaksud pada ayat (1) akan disalurkan oleh **PIHAK PERTAMA** kepada **PIHAK KEDUA** ke rekening sebagai berikut:

Nama

: Dr. Evizal Abdul Kadir, S.T., M.Eng

Nomor Rekening

Nama Bank

(2) **PIHAK PERTAMA** tidak bertanggung jawab atas keterlambatan dan/atau tidak terbayarnya sejumlah dana sebagaimana dimaksud pada ayat (1) yang disebabkan karena kesalahan **PIHAK KEDUA** dalam menyampaikan data peneliti, dan persyaratan lainnya yang tidak sesuai dengan ketentuan.

Pasal 4 Jangka Waktu

Jangka waktu pelaksanaan penelitian sebagaimana dimaksud dalam Pasal 1 sampai selesai 100%, adalah terhitung sejak **Tanggal 01 Januari 2020** dan berakhir pada **Tanggal 31 Desember 2021**.

Pasal 5 Target Luaran

- (1) **PIHAK KEDUA** berkewajiban untuk mencapai target luaran wajib penelitian berupa artikel dimuat di jurnal Internasional Bereputasi (Q1/Q2).
- (2) **PIHAK KEDUA** diharapkan dapat mencapai target luaran tambahan penelitian berupa jurnal seminar Internasional.
- (3) **PIHAK KEDUA** berkewajiban untuk melaporkan perkembangan pencapaian target luaran sebagaimana dimaksud pada ayat (1) kepada **PIHAK PERTAMA.**

Pasal 6 Hak dan Kewajiban Para Pihak

- (1) Hak dan Kewajiban PIHAK PERTAMA:
 - a. **PIHAK PERTAMA** berhak untuk mendapatkan dari **PIHAK KEDUA** luaran penelitian sebagaimana dimaksud dalam Pasal 7;
 - b. PIHAK PERTAMA berkewajiban untuk memberikan dana penelitian kepada PIHAK KEDUA dengan jumlah sebagaimana dimaksud dalam Pasal 2 ayat (1) dan dengan tata cara pembayaran sebagaimana dimaksud dalam Pasal 3.
- (2) Hak dan Kewajiban PIHAK KEDUA:
 - a. **PIHAK KEDUA** berhak menerima dana penelitian dari **PIHAK PERTAMA** dengan jumlah sebagaimana dimaksud dalam Pasal 2 ayat (1);
 - b. PIHAK KEDUA berkewajiban menyerahkan kepada PIHAK PERTAMA luaran Penelitian dengan judul "Data Monitoring foe EOR Investigation at Field Trial Stage". PIHAK KEDUA berkewajiban untuk bertanggungjawab dalam penggunaan dana penelitian yang diterimanya sesuai dengan proposal kegiatan yang telah disetujui;

Pasal 7 Laporan Pelaksanaan Penelitian

- (1) **PIHAK KEDUA** berkewajiban untuk menyampaikan kepada **PIHAK PERTAMA** berupa laporan akhir mengenai luaran penelitian dan rekapitulasi penggunaan anggaran sesuai dengan jumlah dana yang diberikan oleh **PIHAK PERTAMA** yang tersusun secara sistematis sesuai pedoman yang ditentukan oleh **PIHAK PERTAMA**.
- (2) **PIHAK KEDUA** berkewajiban melaporkan Laporan hasil penelitian yang telah dilaksanakan untuk di presentasikan paling lambat **10 Desember 2021.**

- (3) **PIHAK KEDUA** berkewajiban menyerahkan *Hardcopy* Laporan akhir capaian hasil, /Poster/ artikel ilmiah **PIHAK PERTAMA**, paling lambat 31 **Desember 2021**.
- (4) Laporan hasil Penelitian sebagaiman tersebut pada ayat (4) harus memenuhi ketentuan sebagai berikut:
 - a. Bentuk/ukuran kertas A4;
 - b. Di bawah bagian cover ditulis:

Dibiayai oleh:
Dana Penelitian Bersama UIR - UTM
Sesuai dengan Kontrak Penelitian Kerjasama
Nomor: 01/KONTRAK/LPPM-UIR/1-2021

Pasal 8 Monitoring dan Evaluasi

PIHAK PERTAMA dalam rangka pengawasan akan melakukan Monitoring dan Evaluasi terhadap kemajuan pelaksanaan Penelitian Tahun Anggaran 2020/2021 ini dilaksanakan pada bulan 31 Juli tahun 2021.

Pasal 9 Sanksi

- (1) Apabila sampai dengan batas waktu yang telah ditetapkan untuk melaksanakan Penelitian ini telah berakhir, namun **PIHAK KEDUA** belum menyelesaikan tugasnya, terlambat mengirim laporan akhir, maka **PIHAK KEDUA** dikenakan sanksi administratif berupa penghentian pembayaran dan tidak dapat mengajukan proposal penelitian dalam kurun waktu satu tahun berturut-turut.
- (2) Apabila **PIHAK KEDUA** tidak dapat mencapai target luaran sebagaimana dimaksud dalam Pasal 5, maka kekurangan capaian target luaran tersebut akan dicatat sebagai hutang **PIHAK KEDUA** kepada **PIHAK PERTAMA** yang apabila tidak dapat dilunasi oleh **PIHAK KEDUA**, akan berdampak pada kesempatan **PIHAK KEDUA** untuk mendapatkan pendanaan penelitian atau hibah lainnya yang dikelola oleh **PIHAK PERTAMA**.

Pasal 10 Pembatalan Perjanjian

- (1) Apabila dikemudian hari terhadap judul Penelitian sebagaimana dimaksud dalam Pasal 1 ditemukan adanya duplikasi dengan Penelitian lain dan/atau ditemukan adanya ketidakjujuran, itikad tidak baik, dan/atau perbuatan yang tidak sesuai dengan kaidah ilmiah dari atau dilakukan oleh **PIHAK KEDUA**, maka perjanjian Penelitian ini dinyatakan batal dan **PIHAK KEDUA** wajib mengembalikan dana penelitian yang telah diterima kepada **PIHAK PERTAMA** yang selanjutnya akan dikembalikan ke panitia pemilihan bersama UIR-UTM.
- (2) Bukti setor sebagaimana dimaksud pada ayat (1) disimpan oleh PIHAK PERTAMA.

Pasal 11 Penyelesaian Sengketa

Apabila terjadi perselisihan antara **PIHAK PERTAMA** dan **PIHAK KEDUA** dalam pelaksanaan perjanjian ini akan dilakukan penyelesaian secara musyawarah dan mufakat, dan apabila tidak tercapai penyelesaian secara musyawarah dan mufakat maka penyelesaian dilakukan melalui proses hukum.

Pasal 12 Lain-lain

- (1) **PIHAK KEDUA** menjamin bahwa penelitian dengan judul tersebut di atas belum pernah dibiayai dan/atau diikutsertakan pada Pendanaan Penelitian lainnya, baik yang diselenggarakan oleh instansi, lembaga, perusahaan atau yayasan, baik di dalam maupun di luar negeri.
- (2) Segala sesuatu yang belum cukup diatur dalam Perjanjian ini dan dipandang perlu diatur lebih lanjut dan dilakukan perubahan oleh **PARA PIHAK**, maka perubahan-perubahannya akan diatur dalam perjanjian tambahan atau perubahan yang merupakan satu kesatuan dan bagian yang tidak terpisahkan dari Perjanjian ini.

Demikianlah surat perjanjian ini dibuat pada hari ini, tanggal, bulan dan tahun seperti tersebut diatas dan dibuat dalam rangkap 2 (dua) rangkap sebagai kekuatan dan untuk dipergunakan sebagaimana semestinya.

PINAK PERTAMA

PIHAK KEDUA

Dr. Evizal Abdul Kadir, S.T., M.Eng

NIDN: 1029027601

Dr. Evizal Abdul Kadir, S.T., M.Eng

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