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FY22 R&D TAX INCENTIVE APPLICATION

ACTIVITY DESCRIPTION REPORT

VERSION –CLIENT REVIEW 27.04.23

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| --- | --- | --- |
| Company Name | Phibion Group Holdings Pty Ltd | |
| Australian Business Number | 64 648 271 489 | |
| Company Registration Date | **26/02/2021** | |
| Income Period | **1/07/2021** | **30/06/2022** |

**- CONFIDENTIAL -**

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# Project 1: Development of a robust MudMaster tailings Sensor that can remotely determine tailings characteristics in a range of mineral commodities.

|  |  |
| --- | --- |
| PROJECT DETAILS | |
| Project Reference | #1 |
| Project Location (Postcode) | 4178 |
| Project Start Date | **1/07/2019** |
| Project End Date | **30/06/2023** |
| ANZSRC Division | Mining |
| ANZSRC Group | Other Mining support services |

|  |  |
| --- | --- |
| PROJECT EXPENDITURE | |
| How much is expected to be spent over the life of the Project? | $1,845,235 |
| Expenditure on Feedstock inputs (FY22) | $TBD |

## Objectives of the Project

Phibion Group Holdings Pty Ltd (“Phibion”) develops tailings management technology to dewater mineral tailings across various mine sites in Australia, and the world. Their design is based on the twin Archimedes screw which is capable of usage in harsh and high-risk environments and remote locations. The overall technical objective of the MudMaster R&D Project is to develop the optimum means of dewatering partially consolidated tailings slurry to high density/strength with maximum water recovery.

The technical objectives undertaken in this project is to develop:

* A sensing technology based on the measurement of the dielectric permittivity for selected frequency windows to quantify the density of tailings as the main targeted information (Core Activity 1); and
* Further parameters that allow a more comprehensive characterization of the tailings, allowing the automation of the MudMaster and an overall optimization of tailings management (Core Activity 2).

# Core Activity 1: To develop a robust MudMaster tailings sensor that can remotely determine tailings characteristics in a range of mineral commodities.

|  |  |
| --- | --- |
| CORE ACTIVITY DETAILS | |
| Which Project is this Activity related to? | 1 |
| Estimated Current Year Expenditure: | $TBD |
| Activity Start Date | **1/07/2019** |
| Activity End Date | **30/06/2023** |

## What was the hypothesis?

At the outset of these activities, Phibion identified a need for accurate and reliable data collection in relation to tailings in a mining environment, particularly relating to water management. Following prior year activities, technical personnel have established that it is possible to provide accurate and usable data for land reconstitution, restoration, and water management through accurately measuring the amount of water that is removed from tailings and mapping the mud field for high levels of water. In addition, technical personnel hope to develop new knowledge that will enable them to provide the properties of the tailings, including toxicity, composition, and density.

The technical objective to develop a sensing technology based on the measurement of the dielectric permittivity for selected frequency windows to quantify the density of tailings and further parameters that allow a more comprehensive characterization for overall optimization of tailings management was not achieved and has continued into FY22.

To achieve the technical objective, the following specific objectives have continued:

1. Development of a non-invasive sensing system mounted on the MudMaster for selected frequency windows and near-field characteristics that cover a wide frequency range including calibration procedures.
2. Development of a probe that allows the direct measurement of the dielectric permittivity over a wide frequency range that can be used for calibrating the non-invasive sensing system above.
3. Development of equations for quantifying targeted soil parameters and state variables and to provide a comprehensive database that can be used to optimize and predict the success of mud farming.

At the conclusion of FY21, Phibion had conducted experiments associated with *phase 1: Experimentation to develop project startup and definition of system capabilities* and had concluded the following:

* That the antenna should operate between 0.6GHz - 2GHz.
* 4 antennas were required to provide accurate depiction capable of 3D development before observation of diminishing returns.
* Holding the antenna a constant distance was not feasible due to constant undulations in the slurry and movement of the vehicle.
* About 1500 samples were collected with random soil shape and permittivity before the machine learning was able to develop the capable of utilizing this data.
* A number of variables influenced results, and should be isolated and experimented on in future experiments (i.e., is there any metal in the soil, homogeneousness of the soil, magnetic material, is there a floor/waterbed for the soil?)

Entering FY22, Phibion continued hypothesis that by developing a robust real time tailings sensor that can be attached to the MudMaster, it will be possible to remotely determine tailings characteristics in a range of mineral commodities and provide real time material updates on the properties of the slurry as the equipment moves through the tailings.

Whilst Phibion’s hypothesis is based on sound scientific principles and a comprehensive understanding of tailing management technology (both hardware and software), the dearth of comparable technology currently available, and the complexity introduced from the interoperability of the overall system and variables introduced at every level of the operations (type of material mined, processes that the mine uses, type of soil, type of the mining operation, extent of planning for tailings processing), meant that there is no ability to establish whether the proposed technology can achieve the various technical objectives concurrently. Accordingly, technical personnel (in concert with the University of Queensland (UQ)) established that a series of experimental activities focused on developing new knowledge in the form of technical advancements, which will assist in the development of a robust tailings sensor that can remotely determine tailings characteristics in a range mineral commodity is required.

## New Knowledge

|  |  |
| --- | --- |
| DID YOU CONDUCT THIS ACTIVITY FOR A SUBSTANTIAL PURPOSE OF GENERATING NEW KNOWLEDGE? | Yes |

### What new knowledge was this core activity intended to produce?

The primary objective and purpose of these activities is to develop new knowledge regarding the relationships between numerous variables impacting the ability to develop a method for quantifying, in real time, the density of soil waste and soft soil based on electromagnetic measurements results with the aim to improve TSF management and safety. The new knowledge that will be generated includes:

* Ability to develop robust and precise remote sensor for real-time analysis of tailings properties to allow machine operation to be better aligned to the constantly changing tailings properties.
* Ability to integrate this data stream into specific algorithms (machine learning and AI) required to operate a MudMaster autonomously.
* Ability to fabricate a fully electric autonomous MudMaster that will allow Phibion to produce at scale an electric vehicle manufacturing process in Australia.

## Unknown Outcomes

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| --- | --- |
| HOW DID PHIBION GROUP HOLDINGS PTY LTD DETERMINE THAT THE OUTCOME COULD NOT BE KNOWN IN ADVANCE? | |
|  | There was no applicable information in scientific, technical, or professional literature or patents |
|  | Experts in the field provided advice that there was not a solution that could be applied |
|  | There was not a way to adapt solutions from other companies in, and out of, Australia |
|  | Other |
|  | The company did not investigate existing knowledge |

### Please explain what sources were investigated, what information was found, and why a competent professional could not have known or determined the outcome in advance?

To establish that these activities could not have been known or determined in advance Phibion undertook significant industry reviews and extensive literary investigations (academic articles, product reviews, open-source repositories, industry specific material) in concert with UQ into the applicable sciences of sensor engineering and AI development both within Australia and overseas to address the requirements of the system.

Based on these research activities Phibion (and UQ) determined that there are no currently available, off-the-shelf solutions utilizing dielectric sensors or AI that could be integrated into the MudMaster system capable of achieving the technical objectives, or validating the hypothesis without the need for extensive experimental activities.

## What was the experiment and how did it test the hypothesis?

In pursuit of their technical objectives and the generation of new knowledge needed to overcome the identified knowledge gaps, Phibion undertook an iterative process of experimentations and development to test the hardware (non-invasive dielectric sensors and integration/mounting to the MudMaster) and software systems (algorithm development and smart AI programs).

Experimentation has been divided into 3 phases, each of which will require successful completion prior to undertaking the next phase, emphasizing the systematic and progressive nature of this activity. Entering FY22 Phibion proceeded into phase 2 of the experiment.

*Phase 2: Experimentation to design and develop contactless dielectric sensors in full-wave simulation environment (FY22)*

* Experimental activities to develop an Integrated optimized antenna design in terms of its working frequency and near-field characteristics.
* Experimentation to design an RF circuit sensor to connect to the designed antenna structure.
* Experimentation to Optimize sensor geometry via a computational electromagnetic (EM) simulator to achieve an acceptable impedance balance, near-field pattern, efficiency, and frequency-domain response.
* Experimentation to evaluate the sensitivity and reliability of the dielectric sensor in terms of different soil properties.

*Phase 3: Development of a proof-of-concept minimum viable product (MVP) prototype (FY22/23)*

* Experimentation to build up an antenna design from investigational studies and measure its near- and far-field radiation performance (FY22).
* Experimentation to integrate the RF feeding networks designed from investigational studies with the antenna body (FY22).
* Experimentation to connect the developed sensor to the vector network analyser and capture the data over the specified frequency in both free space and a homogeneous medium for calibration purposes (FY22).
* Experimentation to integrate the Minimum Viable Product (MVP onto the MudMaster platform and capture raw RF signals from live application scenarios. This was conducted initially in the port of Brisbane, where iterative experimental activities could be conducted easily, rather than in a live environment where tooling, computers and man-power are all severely limited (FY22).
* Experimentation to collect data and interpret the collected RF signal and mapped data with soil properties (FY23).
* Experimentation to conduct testing of the sensor in various slurries to identify the feedback. The field trials will be conducted with the meter attached to a MudMaster. This information will be input into algorithms in an attempt to develop full automation of the technology platform (FY23).
* In collaboration with the University of QLD, Phibion tested the sensor in various slurries to identify the feedback. From there field trials will be conducted with the meter attached to a MudMaster. This information will be made available to Phibion partners in the US who will develop the algorithms to move to full automation of the MudMaster.

## How did you evaluate or plan to evaluate results from your experiment?

In undertaking experimental activities as part of this core activity, Phibion will collect extensive data on the signals received by the tailings sensor in 3 separate trials, laboratory, larger scale laboratory (workshop) and on a MudMaster ® in the field. The analysis of this data is integral to machine learning and will attribute to the advanced detection of water in a variety of soil/material types.

Phibion (in collaboration with University of Queensland) made the following evaluations in FY22:

*Phase 2: Experimentation to design and develop contactless dielectric sensors in full-wave simulation environment*

* Evaluations on the preliminary designs and configurations of the sensor geometry and dimensions that are required for accurate, reliable results as well as allowing for a robust and functional device. This included the completeness and accuracy of the sensor design, including its ability to maximize sensitivity and minimize interference from surrounding materials. Quantitative metrics evaluated included the dimensions and shape of the sensor, as well as its electromagnetic properties.
* Evaluations to specify the 3D topology and design parameters of the sensor, along with its feeding circuit. Technical personnel paid particular attention to the qualitative (the completeness and accuracy of the feeding circuit design, including its compatibility with the simulation software and fabrication methods, as well as its ease of use and reliability) and quantitative metrics (the specifications of the feeding circuit, including the impedance matching network, the power amplifier, and the power supply voltage and current.

*Phase 3: Development of a proof-of-concept minimum viable product (MVP) prototype*

* Acquiring the dielectric properties (permittivity and conductivity) of the inspected soil form database and imported those data into the numerical analysis model.
* Understand the working environment of the Mud-Master platform and determine the possible positions to be installed with dielectric sensors.
* Evaluate sensor performance in realistic full-wave simulation environments and the dynamic range of dielectric measurements.
* Verification of the 3D simulation model to present the realistic laminates with high reliability.
* Quantitative understanding of the system reliability and sensitivity of measuring the soil properties.
* Evaluation of the commercial viability based on the prototype and MVP.

## If you reached conclusions from your experiments in the selected income period, please describe those conclusions.

At the conclusion of FY22 Phibion had generated significant new knowledge and had completed on phases 1 and 2 of experimentation, however, there is still further planned experimentation that is required before Phibion is able to validate (or invalidate) the overarching hypothesis.

Based on the results of experimentation conducted in FY22, Phibion (in collaboration with UQ) reached the following conclusions:

*Phase 2: Experimentation to design and develop contactless dielectric sensors in full-wave simulation environment*

* Phibion continues to experience poor accuracy of equipment during trials, which continue to be restrained to control tests. @Dave – What does accuracy refer to (i.e., accuracy of the probe measurements, storing data, interpreting data etc.)? Can you please provide examples of what this includes? What is causing these inaccuracies and how do you propose to overcome them?

*Phase 3: Development of a proof-of-concept minimum viable product (MVP) prototype*

* Delicate sensor technology was damaged during activities, requiring repairs. This led technical personnel to identify the shortcomings of the previous designs. For example, Phibion identified the need to develop a ruggardised housing for the antenna assembly due to the harsh environment it is subjected to when the MudMaster is sitting low in the tailings. (@Phibion – can you please provide a high-level explanation of what this ruggardised housing consists of? Did you have any issues developing this – for example did it impact the sensing technology/accuracy etc?)
* Future experimental activities will continue to develop sensor calibration.

@Dave – what experiments are planned for FY23 (current financial year so should be fresh in your memory)

#### SUPPORTING EVIDENCE

|  |  |
| --- | --- |
| EVIDENCE KEPT BY PHIBION GROUP HOLDINGS PTY LTD TO SUPPORT THIS ACTIVITY | |
|  | Evidence of searches or enquires you made to find current knowledge |
|  | Evidence to show that you could only determine the outcome of the core activity by conducting experiments as part of a systematic progression of work |
|  | Evidence of your hypothesis and design of your experiments |
|  | Documented results and evaluation of your experiments |
|  | Other |
|  | The company did not keep records |

## Please describe the other evidence

Emails, contracts, meeting notes, raw data.

|  |  |
| --- | --- |
| DID ANOTHER ENTITY ASSIST IN UNDERTAKING R&D ACTIVITIES? | |
|  | Yes, a non-levy collecting Research Service Provider |
|  | Yes, a levy collecting Research Service Provider |
|  | Yes, a co-operative Research Centre |
|  | No |

|  |
| --- |
| NAME OF RSP or CRC |
| University of Queensland |

## Brief description of the activity, and/or services provided by the Research Service Provider, and what new knowledge the activity was intended to create:

Phibion in collaboration with the University of Queensland, will develop a method for quantifying in real time the density of soil waste and soft soil based on electromagnetic measurement results to improve TSF management and safety. In the first stage, a specific designed RF architecture (including the contactless dielectric probe) in the theoretical level will be developed in the EM simulation and laboratory environment; in the second stage, a proof-of-concept prototype as a minimum viable product (MVP) will be built and tested in real environment for collecting the measurement data and reshape the data into the form representing the dielectric properties of the soil wastes.

The development of such a method is possible by a multi-disciplinary collaboration involving electrical engineering, geophysics, geotechnics, and mechanical engineering,

# Core Activity 2: Develop autonomous capability for the MudMaster® that will eliminate the need for a human operator and have enhanced operability due to the data stream from the on-board tailings’ sensor*.*

|  |  |
| --- | --- |
| CORE ACTIVITY DETAILS | |
| Which Project is this Activity related to? | 1 |
| Estimated Current Year Expenditure: | $TBD |
| Activity Start Date | **1/07/2020** |
| Activity End Date | **30/06/2023** |

## What was the hypothesis?

Phibion are at the forefront of tailings processes and management. Over the near 2 decades of operation technical personnel have identified significant risks to both drivers and mines. These risks include extended exposure to toxic material in tailings from mining processes, extended and monotonous work that requires concentration for the duration of the shift, and general human errors leading to decreased results. Based on these factors, Phibion have identified opportunities to develop an autonomous fleet of MudMasters, capable of performing the required tasks, with accuracy, and removing human exposure to toxic materials.

The technical objective of this activity includes the ability to deliver a fully autonomous MudMaster that will be able to accurately (accuracy in this instance is the ability to travel in a straight path, with as little deviation as possible, regardless of mud composition, and ability to remain in the geofenced area) and reliably (reliability is the ability to complete multiple forward and reverse paths in the mud-field without a drop in accuracy for the full duration of the shift, or until another parameter is met such as refueling or maintenance) complete work without human interaction for extended periods of time. The technical objectives will require solving various technical unknowns, including:

1. The impact of pitch and roll movement in operation on changing height of sensors above the ground and whether this will lead to inaccuracies on the ground position compared to detected position.
2. The impact of mud density on scroll feedback.
3. The impact of limited or no GPS corrections due to areas of operation.
4. The impact of hard material on engine load and how this impacts engine feedback.
5. The effect of different ground conditions and how this impacts the turn radius.

At the conclusion of FY21, Phibion made the following conclusions:

* The autonomous hardware and software were held as capable of integration with the MudMaster design and framework.
* The vehicle was able to follow a straight line while traveling forward very easily. When the vehicle attempted to follow the ‘s’ curve at the end of the forward path, it could not track back to the path causing errors. The control of the vehicle during backward movement was not stable.
* There were serious defects relating to the autonomous joystick operation and the velocity of the MudMaster, with frequent errors between the joystick attempted velocity and the actual vehicle velocity.
* That crabbing (unintentional sideways movement caused by slippage) has the potential to cause localization issues due to the limited infrastructure on the machine which disrupts the orientation state and causes the MudMaster to stop.

Entering FY22, Phibion continued the experimental activities to covert the MudMaster design to a remote/autonomous capability with a lower environmental impact. Based on FY21 results, Phibion has revised its hypothesis that by developing remote sensing instrumentation that provides real-time material properties of the tailings during MudMaster operation it will be possible to feed this information into specific algorithms via autonomous hardware and allow the MudMaster to safely navigate a hazardous tailings environment without the need for an operator. This capability and associated mass reduction will also permit to conversion of the MudMaster drivetrain to a battery/electric system reducing environmental risk and lowering carbon emissions from operations.

Entering FY22, Phibion continued to undertake further investigations and experimentation to validate the revised hypothesis by undertaking phase s 2 and 3 of experimentation in concert with Autonomous Solutions, INC (ASI).

## New Knowledge

|  |  |
| --- | --- |
| DID YOU CONDUCT THIS ACTIVITY FOR A SUBSTANTIAL PURPOSE OF GENERATING NEW KNOWLEDGE? | Yes |

### What new knowledge was this core activity intended to produce?

The primary objective and purpose of these activities is to develop the necessary new knowledge with respect to developing AI algorithms capable of fully autonomous driving in the challenging and unique tailing’s environment, including:

* The impact of pitch and roll movement in operation on changing height of sensors above the ground and whether this will lead to inaccuracies on the ground position compared to detected position.
* The impact of mud density on scroll feedback.
* The impact of limited or no GPS corrections due to areas of operation.
* The impact of hard material on engine load and how this impacts engine feedback.
* The effect of different ground conditions and how this impacts the turn radius.

If successful in the development of this new knowledge Phibion intend to apply this knowledge across their fleet of MudMasters, increasing their performance while decreasing human risk.

## Unknown Outcomes

|  |  |
| --- | --- |
| HOW DID PHIBION GROUP HOLDINGS PTY LTD DETERMINE THAT THE OUTCOME COULD NOT BE KNOWN IN ADVANCE? | |
|  | There was no applicable information in scientific, technical, or professional literature or patents |
|  | Experts in the field provided advice that there was not a solution that could be applied |
|  | There was not a way to adapt solutions from other companies in, and out of, Australia |
|  | Other |
|  | The company did not investigate existing knowledge |

### Please explain what sources were investigated, what information was found, and why a competent professional could not have known or determined the outcome in advance?

Phibion (who are competent professionals in engineering for tailings management) in concert with ASI (who are competent professionals in AI and Machine Learning to optimize industrial vehicle applications) undertook significant industry (including inter-industry application), academic, and product reviews both in Australia and overseas to address the challenges associated with this activity. Phibion acknowledges the existence of current solutions regarding AI based autonomous movement; however, no available datasets for autonomous vehicle operation were able to address the level of functionality and capability in tailing environments.

The associated challenges led to Phibion to engage ASI (who are overseas experts in autonomous engineering solutions) to provide requisite knowledge capable of adaptation for Phibion (an advanced overseas finding has been granted prior to engagement).

## What was the experiment and how did it test the hypothesis?

In pursuit of their technical objectives and the generation of new knowledge needed to overcome the identified knowledge gaps, Phibion undertook an iterative process of experimentations and development to test the software systems (algorithm development and smart AI programs).

Experimentation has been divided into 3 phases, each of which will require successful completion prior to undertaking the next phase, emphasizing the systematic and progressive nature of this activity. Following on from knowledge generated from phase 1 in FY21, Phibion technical personnel proceeded to phase 2

*Phase 2: Experimentation to develop software (Mobius) componentry, Teleoperation, and Waypoint.*

* Phase 1 was proof of concept which resulted with the confidence that the MudMaster can be controlled and was single dimensional in that both scrolls worked in unison and not independently. Phase 2 required a large body of work that enabled independent control of the scrolls in any direction and slip detection to each of the scrolls so that feedback would provide the integrated Vehicle Automation Kit (VAK) with the necessary logic to keep the MudMaster in a straight line and at maximum traction.
* Experimentation to design and develop a VAK.
* Experimentation to develop Mobius (software platform) command and control with teleoperation functions and basic waypoint capability.
* Experimentation to establish integrated safety analysis (HARA) and network infrastructure analysis.
* Experimentation to integrate the above 3 systems capable of autonomous control, and monitoring of the MudMaster.
* Experimental activities to develop pathfinding/following in a tailing’s environments.

*Phase 3: Experimentation to develop a program to control the pathing, monitor the metrics of the MudMaster in real-time (FY23)*

* Experimentation to modify the Mobius’ Area Coverage planner and function and the VCU code to allow for forward and reverse control within the planner and develop an area coverage pattern according to established best practices.
* Experimental activities to establish if the above can be automated (automate the pathfinding process)
* Experimentation in a real-world environment with full autonomous completion of task for full shifts over consecutive days.

## How did you evaluate or plan to evaluate results from your experiment?

In FY22, Phibion in concert with ASI evaluated the results of phase 1 experiments. This included the following evaluations:

*Phase 2: Experimentation to develop software (Mobius) componentry, Teleportation, and Waypoint*

@Dave: The below points are good; however, could you please provide a little more information on the metrics that you were monitoring, how you monitored them, did you use different metrics for different environments etc.?

VAK installed on an experimental MudMaster, with field trials were conducted at the Port of Brisbane. Notes were collected for further control development and refinement with the following evaluation metrics:

*Phase 1 metrics:* Using the MudMaster controls to navigate a skid-steer. All data feedback was over the VMS (Vehicle Management System) canbus.

* *Phase 2 metrics:* was taken via real-time and logged data over VMS canbus. To refine vehicle navigational control and scroll slip.

## If you reached conclusions from your experiments in the selected income period, please describe those conclusions.

At the conclusions of FY22, Phibion were able to develop significant new knowledge regarding the development of autonomous capability for MudMaster vehicles. Throughout FY22 phase 1 experimental activities were completed, and phase 2 activities were conducted, with substantial experiments and evaluations being completed; however, the phase 2 experimentation was unable to be completed as a result of mechanical failures observed throughout the year. Examples of the new knowledge generated included:

Conclusions regarding phase 2 experiments included:

* Material in which the machine was being tested was not consistent to that of a conventional tailings pond thus requiring constant tethering and the occasional rescue. @Dave: Was this something that limits the applicability of these experiments? Or, if it is successful there, do you theorise that it will work in tailings environment? What caused the failings? Can you explain how you will overcome these issues in future activities?
* The experimental machine experienced several mechanical failures that disrupted the continuity of testing. @Dave: Can you please explain what these failures were? Were they related to the R&D experiments? Dd you overcome them? What did you do to overcome the failures? Phibion were unable to resolve these technical issues in FY22, with technical personnel continuing to complete R&D activities into FY23.
* FY22 – Nothing worked to expectations - @Dave: This is a very broad statement. Can you please provide a high level overview of what did not work, and how you overcame the issues? We do have character limitations, so just 1 or 2 major areas of limitation that prevented you from being able to validate the hypothesis would be good.
* Further work was required in FY23 to conclude and validate success metrics. @Dave: What work was required?

At the conclusion of FY22, Phibion had developed significant new knowledge, and had begun to comprehend the relationships that exist, including developing AI, ML algorithms and integrating these for autonomous operation of the MudMaster. Further Machine management refinement is required in FY23 to conclude Phase 2. Phase 3 experiments are planned for FY23 whereby client will evaluate results and draw logical conclusions to inform the validity of hypothesis, and depending on the outcome, determine the future activities.

#### SUPPORTING EVIDENCE

|  |  |
| --- | --- |
| EVIDENCE KEPT BY PHIBION GROUP HOLDINGS PTY LTD TO SUPPORT THIS ACTIVITY | |
|  | Evidence of searches or enquires you made to find current knowledge |
|  | Evidence to show that you could only determine the outcome of the core activity by conducting experiments as part of a systematic progression of work |
|  | Evidence of your hypothesis and design of your experiments |
|  | Documented results and evaluation of your experiments |
|  | Other |
|  | The company did not keep records |

## Please describe the other evidence

Emails, milestone reports, overseas finding, meeting notes, experiment data.

#### EVIDENCE RELIED UPON WHEN PREPARING THE ACTIVITY DESCRIPTION REPORT

|  |  |  |
| --- | --- | --- |
| # | DOCUMENT NAME | DATE PROVIDED |
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# Appendix

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| DID ANOTHER ENTITY ASSIST IN UNDERTAKING R&D ACTIVITIES? | |
|  | Yes, a non-levy collecting Research Service Provider |
|  | Yes, a levy collecting Research Service Provider |
|  | Yes, a co-operative Research Centre |
|  | No |

|  |
| --- |
| NAME OF RSP or CRC |
|  |

## Brief description of the activity, and/or services provided by the Research Service Provider, and what new knowledge the activity was intended to create:

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# Notes

|  |
| --- |
| TYPE OF NOTES |
|  |

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