CLEAN RESOURCES FINAL REPORT PACKAGE

Project proponents are required to submit a Final Report Package, consisting of a Final Public Report and a Final Financial Report. These reports are to be provided under separate cover at the conclusion of projects for review and approval by Alberta Innovates (AI) Clean Resources Division. Proponents will use the two templates that follow to report key results and outcomes achieved during the project and financial details. The information requested in the templates should be considered the minimum necessary to meet AI reporting requirements; proponents are highly encouraged to include other information that may provide additional value, including more detailed appendices. Proponents must work with the AI Project Advisor during preparation of the Final Report Package to ensure submissions are of the highest possible quality and thus reduce the time and effort necessary to address issues that may emerge through the review and approval process.

Final Public Report

The Final Public Report shall outline what the project achieved and provide conclusions and recommendations for further research inquiry or technology development, together with an overview of the performance of the project in terms of process, output, outcomes and impact measures. The report must delineate all project knowledge and/or technology developed and must be in sufficient detail to permit readers to use or adapt the results for research and analysis purposes and to understand how conclusions were arrived at. It is incumbent upon the proponent to ensure that the Final Public Report **is free of any confidential information or intellectual property requiring protection**. The Final Public Report will be released by Alberta Innovates after the confidentiality period has expired as described in the Investment Agreement.

Final Financial Report

The Final Financial Report shall provide complete and accurate accounting of all project expenditures and contributions over the life of the project pertaining to Alberta Innovates, the proponent, and any project partners. The Final Financial Report will not be publicly released.

CLEAN RESOURCES FINAL PUBLIC REPORT TEMPLATE

1. PROJECT INFORMATION:

Project Title:	**Geothermal Heat - Reducing Emissions and Increasing Alberta's competitiveness**
Alberta Innovates Project Number:	202100682
Submission Date:	July 30, 2022
Total Project Cost:	$1,271,734
Alberta Innovates Funding:	$424,403
AI Project Advisor:	Vanessa White

2. APPLICANT INFORMATION:

Applicant (Organization):	**Borealis GeoPower Inc.**
Address:	Suite 305, 500 4th Ave SW, Calgary, AB, T2P 2V6
Applicant Representative Name:	Alison Thompson
Title:	CEO and President
Phone Number:	403-801-6805
Email:	alison@borealisgeopower.com

3. PROJECT PARTNERS

Please provide an acknowledgement statement for project partners, if appropriate.

RESPOND BELOW

We gratefully acknowledge the parallel support of Natural Resources Canada's Indigenous Natural Resource Partnerships program, which supported our partner, Kitselas Geothermal Inc., and also Western Economic Diversification, rebranded to Prairies Economic Development Canada (PrairiesCan) during the course of the project, for project support during the COVID-19 crisis. Borealis also deepened a geoscience relationship with the University of Alberta via an NSERC Alliance grant.

A. EXECUTIVE SUMMARY

Provide a high-level description of the project, including the objective, key results, learnings, outcomes and benefits.

RESPOND BELOW

The project consists of a field test of new techniques designed to provide improved targeting for drilling subsurface geothermal resources, specifically in a Canadian context, where the large amounts of conductive overburden placed by pervasive glaciation, greatly limits the breadth and accuracy of normal geophysical investigation.

Through a number of physical trials, notably drilled holes, the project was able to confirm that:

1. Integrated geophysics provides a better basis for understanding the subsurface
2. Shallow core holes represent the most cost-effective way to obtain real physical data – to reference the geophysics, especially in new fields
3. Shallow targets are very well imaged, +/- 5m accuracy
4. Thermal gradients, or heat flux measurements, can be used to distinguish active from relict geothermal systems

An unexpected outcome of this study was attracting the interest of an electricity monopoly who agreed that regional system demand side management activities could be supported via fuel switching to renewable, geothermal industrial heat, instead of electrification.

B. INTRODUCTION

Please provide a narrative introducing the project using the following sub-headings.

- **Sector introduction:** Include a high-level discussion of the sector or area that the project contributes to and provide any relevant background information or context for the project.
- **Knowledge or Technology Gaps:** Explain the knowledge or technology gap that is being addressed along with the context and scope of the technical problem.

RESPOND BELOW

Sector Introduction

A challenge for geothermal energy development is the high upfront risks and costs associated with drilling dry wells. Borealis GeoPower aims to overcome this challenge through their experience gained in Canadian exploration settings. The exploration experience will further enable Borealis's development of a novel form of Canadian industrial cooling, Geothermal Absorption Chilling. Geothermal Absorption Chilling takes advantage of the efficiency of direct heat transfer to more economically drive industrial cooling, while simultaneously reducing the carbon footprint of these operations.

Knowledge Gap

This project will focus on confirming Borealis GeoPower's predictive capability.

Canada's ability to find and exploit viable geothermal systems is impaired by the extensive glaciation, which has filled most of the basin and range valleys in which medium to high temperature geothermal resources will reside. This glacial overburden is often highly conductive, containing many layers of marine clays. As such, it prevents surficial examination of fracture systems. Further, if can mute and distort geophysical investigation, creating additional uncertainty around subsurface location.

The knowledge gap we aim to address is how to best "see" geothermal resources beneath this overburden layer and also do so in relatively lightly populated areas, where there is still significant anthropogenic noise in geophysical data.

C. PROJECT DESCRIPTION

Please provide a narrative describing the project using the following sub-headings.

- **Knowledge or Technology Description:** Include a discussion of the project objectives.
- **Updates to Project Objectives:** Describe any changes that have occurred compared to the original objectives of the project.
- **Performance Metrics:** Discuss the project specific metrics that will be used to measure the success of the project.

RESPOND BELOW

A challenge for geothermal energy development is the high upfront risks and costs associated with drilling dry wells. Borealis GeoPower aims to overcome this challenge through their experience gained in Canadian exploration settings. The exploration experience will further enable Borealis's development of a novel form of Canadian industrial cooling, Geothermal Absorption Chilling. Geothermal Absorption Chilling takes advantage of the efficiency of direct heat transfer to more economically drive industrial cooling, while simultaneously reducing the carbon footprint of these operations.

This project will focus on confirming Borealis's predictive capability. Once confirmed, the technology will bring cost certainty to delivering geothermal heat, necessary for Geothermal Absorption Chilling to operate.

The project's objectives were to:

- identify target locations
- drill holes at those locations
- obtain subsurface measurements from the target locations
- confirm that the flow, temperature, subsurface water quality, and subsurface location met the initial predictions, and
- update modelling approach.

The performance metrics, as noted above, were:

- subsurface location versus prediction
- geothermal properties (water flow, water temperature, water quality – conductivity)

D. METHODOLOGY

Please provide a narrative describing the methodology and facilities that were used to execute and complete the project. Use subheadings as appropriate.

RESPOND BELOW

The methodology is provided for each of the project's milestones and/or major work components.

Targeting:

Methodology – Identify prospective open fracture systems likely to be carrying geothermal fluid. Reliance is placed on conductive features that are likely to be open, given the prevailing stress regimes.

Using internal and confidential algorithms, 4 subsurface targets were developed. For each site, a complete set of predictions was made with respect to all potential measurements to be made of the hole, the drilling of the hole, and its contents.

Facilities/Equipment – Access to Magneto-Telluric, Electrical Resistivity (VTEM), InSAR, Magnetic geophysical surveys. Further, use of Leapfrog and Oasis Montaj 3D visualization programs.

Site preparation

Methodology – Create a drill site with sufficient space for required equipment and activity while minimizing impact on local environment.

Each of the proposed sites was cleared to allow equipment sufficient access to perform the drilling and measurement activities. Care was taken to ensure no items of cultural or archeological significance were disturbed and that impact on the local environment was minimized.

Facilities/Equipment – Excavator, bulldozer, dump trucks, access to aggregate.

Drilling

Methodology – Drill a hole to target depth and formation. Measure while drilling.

In the unconsolidated glacial overburden, an air rotary/air hammer rig was used to open a hole down to bedrock. This hole was cased and cemented, isolating the hole from surficial aquifers. In the bedrock, a mining coring rig (HQ size) was used to core down to target depths.

During this process, input water was measured for conductivity and temperature. Produced water was measured for conductivity and temperature. Core was examined for features of interest. Loss of circulation zones, swelling clay, and highly fractured zones were noted by the drillers and onsite geoscience team.

Drilling was concluded once the target formation was passed.

Facilities/equipment – Air rotary/downhole hammer rig, hard rock coring rig, access to water for drilling fluid, water conductivity and temperature meters.

Measurement/Tests

Methodology – Perform the necessary tests on both the open hole and the core taken from the hole.

Upon conclusion of drilling, temperature gradient measurements were performed over a period of time, as the hole 'cools down' from the drilling process.

Water samples were taken from the target formation using stainless steel bailers. Water was sampled for geochemical markers as well as constituent gases.

Baseline measurements of local water, snow and gas emissions were also measured.

Constituent elements in core were measured with short wave infra-red (SWIR) diffraction tools.

Thin sections of interesting rock were taken and sent to laboratories, for examination.

Clays were sampled for methylene blue testing.

Pumped pressure and flow tests were performed on fractures of interest, to ascertain their permeability and overall deliverability.

Facilities – Thermal gradient measurement tools, conductivity measurement tools, pressure measurement tools, large surface pump, subsurface packer (isolation) system, various laboratory tests (water testing, rock properties), rock cutting tools, Xray tools.

Data Analysis

Methodology – Calculate or measure critical attributes. Integrate into 3D conceptual model. Compare results to predictions and modify approach accordingly.

For each test/measurement, comparisons were made between actual results and predicted measurements. Individually and in aggregate, explanations were sought to address the differences. When coherent, these explanations were incorporated into the overall 3D model. Further, refinements of the measuring processes were also addressed as part of the review, to ensure that no internal measurement bias appeared in the results.

Facilities – Various labs (ALS, U of Calgary, U of Ottawa), Leapfrog and Oasis Montaj 3D visualization tools, Excel and other numerical analysis tools, U of Alberta computing clusters.

Geological – We retained a third-party geothermal geophysics group to review the improved data and provide their opinion on the impact of the geophysical improvements vis-à-vis location, orientation and clarity.

E. PROJECT RESULTS

Please provide a narrative describing the key results using the project's milestones as sub-headings.

- Describe the importance of the key results.
- Include a discussion of the project specific metrics and variances between expected and actual performance.

RESPOND BELOW

The project has drilled 4 targeted holes.

All holes hit the prospective formations within +/- 5m of prediction

Hole #1: ***Star Wars***: This hole was a relict geothermal system. It may have been active +/- 50,000 years ago but is no longer active. The geothermally altered rock had silicified into an impermeable mass and there was no flow in the hole from the fracture of interest.

Selected Key metrics

Temperature Gradient < 23 °C/km, below target 40 °C/km

Flow: 0, below requirement of 0.4 l/s per meter of open fractures

Water: no samples available, below all metrics

Hole #2: **Kennels**: This hole was not a geothermal system. The conceptual model that tied this hole into a known geothermal feature was incorrect. The high conductive signatures were from sulphide deposition within known fracture systems.

Selected Key metrics

Temperature gradient > 33 °C/km, below target 40 °C/km but above background of 20-25 °C/km

Flow: 1.1 l/s per meter, above requirement of 0.4 l/s

Water: Conductivity 350-400 µS/m2, below target of > 600 µS/m2

Hole #3: **Scotty**: This hole was a geothermal system. Hot geothermal water was flowing from the hole.

Selected Key metrics

Temperature gradient > 49 °C/km, above target 40 °C/km

Flow: 2.0 l/s per meter, above requirement of 0.4 l/s

Water: Conductivity 1,400 µS/m2, above target of > 600 µS/m2

The Scotty well encountered a blind geothermal system – which is a geothermal system with no surficial expression. Blind systems are notoriously difficult to target; absent the integrated geophysical approach utilized in this project for targeting, the likelihood of finding a blind system is effectively zero. As such, the results of the Scotty well further illustrate the effectiveness of Borealis's approach.

Additional results:

Through the Alliance partnership with the University of Alberta, the project has been able to validate the use of integrated geophysics, where more than 1 geophysical survey is used to develop a perspective on subsurface structure and formations.

The integrated geophysics not only provides a more accurate representation of location in space, but it also provides a starker contrast between highs and low, bringing greater definition to subsurface structures and formations.

The project contemplated drilling a 4^{th} hole. Significant permitting issues delayed its drilling and subsequent to that, a COVID-19 outbreak and facility shutdown, at the originally chosen location in March 2022 after the drilling rig was enroute, drove a change of targeting decision. Surface access and site nuisance agreements were negotiated, along with retention of the necessary 2 drilling contractors. Drilling commenced May 23 2022.

Hole #4: **Kumpolt**: This hole did not advance below 50 m depth, due to critical well control issues – see below.

Selected Key metrics

Temperature gradient: Not available, shallow surface water measured at 9.1 C

Flow: 11.4 l/s, artesian

Water: Conductivity 585 µS/m2, below target of > 600 µS/m2

Unfortunately, the top-hole portion of the well, from ground level to bedrock, encountered severe and unexpected artesian conditions which drove flow outside of the casing, through the top seal, requiring immediate remedy and closure. This prevented the core hole (bottom-hole) driller, who was on site, from attempting the deepening of the hole in bedrock, as had been planned.

All appropriate Ministry of Environment protocols were followed. Upon engaging an independent hydrogeologist, a plan was developed and deployed. The flow around the outside of the casing was stopped and Borealis completed a monitoring period, to ensure a proper seal.

The temperature and conductivity measurements are very anomalous for shallow flow and are indicative of connection with a deeper system, however, we were unable to investigate this option. The BC Ministry of Environment asked that we not redrill the site, due to the potential risk of not closing out an artesian well.

F. KEY LEARNINGS

Please provide a narrative that discusses the key learnings from the project.

- Describe the project learnings and importance of those learnings within the project scope. Use milestones as headings, if appropriate.
- Discuss the broader impacts of the learnings to the industry and beyond; this may include changes to regulations, policies, and approval and permitting processes

RESPOND BELOW

Integrated geophysics provides a much more accurate basis for making subsurface predictions. Fracture hosted geothermal systems are not large, typically in structural formations of < 200m width and themselves might only be contained within sub-10-meter sections of those structures. Being able to place a wellbore sufficiently close to access these targets via pressure gradients is the measure of success. Therefore, the better predictions which result from integrated geophysics are critical to well bore placement to positions at or near geothermal systems.

The drilling of relatively inexpensive shallow core holes does inform both the geophysical interpretation, as well as providing a stronger basis for making future predictions. In virgin subsurface terrain, where no prior deep rock data exists, access to core, from which we can determine various rock properties, is an essential tool to comprehending the output of shallow geophysics and provides the basis for accurate predictions as to what might be below the core hole depths.

Notably, conductivity of geothermally altered rock, conductivity of clay layers, and velocity of sound in different layers of the overburden are the parameters to determine.

Shallow targets can be located within +/- 5m of their actual subsurface location. The geophysical predictions appear to be much more accurate in the sub 500m depths. These can be reliably used to drill shallow targets that provide invaluable information related to subsurface structure and rock properties.

Varying thermal gradients, as a function of surface location, can help distinguish relict, but clearly visible in the geophysics, from active geothermal systems. Relict geothermal systems, while no longer active, provide near identical geophysical signatures to existing geothermal systems, and therefore create significant drilling risk. The key differentiator is these systems are no longer convecting or conducting significant heat. Accordingly, mapping differences in geothermal gradients, or heat flux – if the opportunity exists to measure it, provides a strong basis for discounting these false positives.

The Kennels well provided valuable information, despite not encountering a geothermal system. Airborne electromagnetics were used to locate conductive faults in the subsurface that may host hidden geothermal systems, as hot water and geothermal alteration within these faults are more conductive than unaltered bedrock. However, certain conductive minerals, such as metal sulphides deposited during past hydrothermal activity, can also make faults appear conductive. Although the fault targeted with the

Kennels well had a conductive signature and was near a location with a previously identified, conductive, hidden geothermal system, the Kennels well encountered sulphide mineralization instead.

This well was not a total loss as it still provided valuable subsurface information and a measurement of the geothermal gradient in the area. This gradient, and gradients from other wells, have been used to refine the conceptual model of the system to focus on areas of higher potential to the south.

Without the aid of altered outcrop, previous drilling knowledge, or some other clear indicator of geothermal activity at the surface, it will be difficult to eliminate the possibility that a targeted fault contains sulphide mineralization rather geothermal fluids. The best way to mitigate a similar outcome in the future is to understand the regional geology of the area and incorporate this understanding into the model used for well targeting, and the information gained from wells like Kennels help with this.

G. OUTCOMES AND IMPACTS

Please provide a narrative outlining the project's outcomes. Please use sub-headings as appropriate.

- **Project Outcomes and Impacts:** Describe how the outcomes of the project have impacted the technology or knowledge gap identified.
- **Clean Energy Metrics:** Describe how the project outcomes impact the Clean Energy Metrics as described in the *Work Plan, Budget and Metrics* workbook. Discuss any changes or updates to these metrics and the driving forces behind the change. Include any mitigation strategies that might be needed if the changes result in negative impacts.
- **Program Specific Metrics:** Describe how the project outcomes impact the Program Metrics as described in the *Work Plan, Budget and Metrics* workbook. Discuss any changes or updates to these metrics and the driving forces behind the change. Include any mitigation strategies that might be needed if the changes result in negative impacts.
- **Project Outputs:** List of all obtained patents, published books, journal articles, conference presentations, student theses, etc., based on work conducted during the project. As appropriate, include attachments.

RESPOND BELOW

Project Impacts

The project has developed a process for more accurately imaging deep geothermal resources.

The project has developed a process for eliminating relict geothermal systems from consideration as drilling targets.

The project has developed a much more accurate subsurface model of the M'deek geothermal system.

Clean Resources Metrics

Through the Alberta Innovates project, myriad Clean Resource Metrics were identified. The project activities resulted in meeting many of the targets set including:

- Technology Readiness Level (TRL) Advancement
    - TRL 9 achieved from a starting point of 7
- Field pilots/demonstrations
    - Project moving towards demonstration
- Collaborators
    - University of Alberta, Shell Canada, Skeena BioEnergy, Kitselas Geothermal
- Rural and Indigenous Communities
    - Kitselas Development Corp.
- Students Trained (M.Sc., Ph.D., Postdoc)
    - 3 students were trained during the project
- Innovation Ecosystem
    - Was grown significantly in Alberta through this project's supply chain
- GHG Emissions: Projected reductions from future deployment (to 2030)
    - 17,000 t/yr and 850,000 t over project lifetime
- Investment in 1 of 4 Core Strategic Technology Areas
    - Clean Technology
- Existing Sector HQP Jobs Retained
    - 12 (especially noteworthy as this was during the initial COVID period)
- Jobs: Projected new jobs created from future deployment
    - 183
- Future Capital Investment
    - ~$25,000,000 for first project phase
- New Products/services created
    - Renewable industrial heating

The project is slated to move ahead to development in early 2023. The consortium is pursuing a Heat Purchase Agreement with an industrial customer that will result in an annual reduction of ~ 17,000 tonnes CO_2 of GHG emissions. Over the 50-year facilities' lifetime, this will result in a reduction of 850,000 tonnes of GHG emissions. The project has optionality to expand to serve more fossil fuel based load which will in turn result in further GHG reductions.

Program Specific Metrics

As noted below, showing performance versus the metrics contained in the Work Plan Workbook, the drilling program was not entirely successful in meeting all of its metrics. However, what this led to was a significant development of our thinking on how to best target these kinds of geothermal reservoirs. This evolution of our experimental design is the critical part of this process, in which we are grateful for Alberta Innovates support, as we learn from direct experience.

	Holes (in order of drilling)			
Metric	Star Wars	Kennels	Scotty	Kumpolt
Subsurface Fluid Properties				
Flow Rates				
Target Intersection				
Geological Structure Delineation				
Fluid Chemistry				
Reservoir Pressure				

Project Outputs

There are 8 significant project outputs:

1. Progress Update on Expert Review of Exploration Activities in the M'deek Geothermal Field (Internal document)

2. Unveiling Canada's Extensional Geothermal Resources: Exploration and Assessment of the Lakelse Geothermal Field, British Columbia (Technical paper prepared and accepted by World Geothermal Congress but not yet delivered at a conference due to COVID-19)

3. 3rd party geophysics review. This includes assessment, reprocessing, analysis, and inversion reports on the 2020 MT data (Internal documents)
    a. CMTS-2020-Borealis-1-R1_AssessmentReport
    b. CMTS-2020-Borealis-01-R2R_RevisedProcessingReport
    c. CMTS_2020-Borealis-1-R3_AnalysisReport
    d. CMTS2020-Borealis-1-R4_3DinversionReport

4. ANALYSIS OF MAGNETOTELLURIC DATA COLLECTED FOR GEOTHERMAL EXPLORATION AT LAKELSE IN 2020 (University of Alberta; pre-publication)

5. Lakelse_M'deek 2D Geophysical Seismic Survey 2021-2022 (Internal document)

6. Progress Report - 2022 MT: Supplement to the above - REPORT ON SURVEY EXPANSION, 2022 (University of Alberta; pre-publication)

7. Technology Transfer Plan: As the end use energy application changed during the project, from industrial cooling to industrial heat for bioenergy pellet drying, the technology transfer plan also had to change. Please refer to Forest Product Innovations: Geothermal Direct Use – Skeena Bioenergy Case Study, August 2021 (external). This was accepted as the Technology Transfer plan by Heather Campbell in August 2021. (Published by FP Innovations)

8. 3rd party M'deek Prospect Review 20220520 (Internal document)

H. BENEFITS

Please provide a narrative outline the project's benefits. Please use the subheadings of Economic, Environmental, Social and Building Innovation Capacity.

- **Economic:** Describe the project's economic benefits such as job creation, sales, improved efficiencies, development of new commercial opportunities or economic sectors, attraction of new investment, and increased exports.
- **Environmental:** Describe the project's contribution to reducing GHG emissions (direct or indirect) and improving environmental systems (atmospheric, terrestrial, aquatic, biotic, etc.) compared to the industry benchmark. Discuss benefits, impacts and/or trade-offs.
- **Social:** Describe the project's social benefits such as augmentation of recreational value, safeguarded investments, strengthened stakeholder involvement, and entrepreneurship opportunities of value for the province.
- **Building Innovation Capacity:** Describe the project's contribution to the training of highly qualified and skilled personnel (HQSP) in Alberta, their retention, and the attraction of HQSP from outside the province. Discuss the research infrastructure used or developed to complete the project.

RESPOND BELOW

Economic

As noted above, the project is moving to final investment decision (FID). Current projections of the first 20-year term of the Heat Purchase Agreement (HPA) from the M'deek Geothermal field will result in ~$45 million in revenue. In turn, this will create an estimated 66 jobs during well drilling and appraisal activities, and 117 jobs to build the pipeline for a total of 183 jobs during the project's construction phase. Additional permanent jobs at Borealis and in partner and energy customer companies have not been estimated yet are anticipated to be forthcoming.

Environmental

As noted above, the project will result in an annual reduction of ~ 17,000 tonnes CO_2 of GHG emissions. Over the lifetime of the facilities, this will result in a reduction of 850,000 tonnes of GHG emissions. Further, there are immediate on-site options at the Customer to expand which could double this GHG reduction as this energy customer seeks to expand their business by using renewable energy without a carbon-tax exposure.

Social

The project significantly strengthened stakeholder involvement of the BC Oil and Gas Commission around geothermal energy, who in turn, is available to build capacity in the Alberta Energy Regulator. Stakeholder involvement of the University of Alberta and MITACS was also enhanced as a result of this project.

Building Innovation Capacity

During the project, we have attracted and hired 3 HQSP while retaining all existing staff, through both an economic downturn in Oil & Gas and through the COVID Pandemic.

I. RECOMMENDATIONS AND NEXT STEPS

Please provide a narrative outlining the next steps and recommendations for further development of the technology developed or knowledge generated from this project. If appropriate, include a description of potential follow-up projects. Please consider the following in the narrative:

- Describe the long-term plan for commercialization of the technology developed or implementation of the knowledge generated.
- Based on the project learnings, describe the related actions to be undertaken over the next two years to continue advancing the innovation.
- Describe the potential partnerships being developed to advance the development and learnings from this project.

RESPOND BELOW

We will continue to work on both further developing this geothermal field and initiating similar projects across Western Canada.

We are pursuing an expansion of our relationship (Alliance Partnership) with the University of Alberta while also extending our commercial relationships into other industrial sectors.

J. KNOWLEDGE DISSEMINATION

Please provide a narrative outlining how the knowledge gained from the project was or will be disseminated and the impact it may have on the industry.

RESPOND BELOW

We expect the first full commercialization of a geothermal reservoir in BC will have a dramatic effect vis-à-vis demonstrating the economic opportunity geothermal energy provides to industrial energy customers.

For our customer, not only will they enjoy lower energy costs and greatly reduced emissions, by reducing their own carbon footprint, they increase the value of the products which they are selling into the global market. We expect this transformation to be highly visible to their competitors.

Further, a review of the technology transfer plan completed for this Alberta Innovates project named, Forest Product Innovations - Geothermal Direct Use: Skeena Bioenergy Case Study, dated August 2021, is making its way through a variety of stakeholders (both industry and government). This has already triggered potential interest from another forestry industry company with operations in Alberta and BC, and a global Beverage Processing Industry company, for their operations located in BC.

K. CONCLUSIONS

Please provide a narrative outlining the project conclusions.

- Ensure this summarizes the project objective, key components, results, learnings, outcomes, benefits and next steps.

RESPOND BELOW

The objective of the exploration was, in essence, to refine the targeting of subsurface geothermal reservoirs.

The work performed did not only that but has also led to the commercialization of the project. The efforts made to refine the targeting were the subject of a financial and technical Due Diligence, performed by an Oil & Gas firm, in order to secure further and future learnings.