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Walking on Two Legs: Case study on the role of Indigenous expertise during the environmental assessment of the Ajax mine in Kamloops, British Columbia

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Walking on Two Legs

Case study on the role of Indigenous expertise during the environmental assessment of the Ajax mine in Kamloops, British Columbia

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1. INTRODUCTION

Across the world, Indigenous people and mining have gone hand in hand with struggles over land management. Many countries across the world utilize natural resources for the production of national wealth. In many parts of the world this has led to land contests between Indigenous nations and companies that try to establish mining industries (Huggins, 2017; Thompson, 2018; UNHROHC, 2003). Many of these tensions have existed for as long as settler colonial histories have. Many former western colonies were set up to expand European resource acquisition, the most famous example in Canada being the beaver trade and the establishment of the Hudson's Bay Company. This colonial legacy still resonates within countries that have both settler colonial origins and which support supranational mining companies whose main focus is on resource mining (Tennberg et al., 2021).

Indigenous people are not consulted, and their expertise remains out of consideration by big institutions such as the Canadian government. This structural side-lining of Indigenous experts is testimony to the exclusion of Indigenous people and their right to self-govern. Leaving out Indigenous expertise also poses great risks of leaving out essential information that could prove vital in assessing project safety and viability. It becomes very clear that governments around the world simply do not know how to deal with this tension. Understanding the issues faced by Indigenous people and the limited voice that they have in governance is crucial in breaking down discriminatory practices found in governance today and to collaborate using the wealth of all sorts and types of experts to govern.

The inability of governments and businesses to effectively reconcile Indigenous land rights with their own goals and ambitions is in direct violation of the United Nation Declaration of the Rights of Indigenous Peoples (UNDRIP). UNDRIP, which was adopted by the United Nations General Assembly on September 13th, 2007, clearly stipulates the following in Article 32:

"1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.

2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval

of any project affecting their lands or territories and other resources particularly in connection with the development, utilization or exploitation of mineral, water or other resources

3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact" (United Nations Declaration on the Rights of Indigenous Peoples, 2007)

The adoption of UNDIRIP by the U.N. General Assembly marks a very important step in granting Indigenous people the right to control any development on their land. Over 144 states voted in favour of adopting this declaration into their own laws to elaborate on the human rights standards and freedoms of Indigenous people. The focus on Article 32 clearly points towards the very real threat of natural resource overextraction on traditional Indigenous territories and cultures. It also illustrates how states and natural resource companies structurally fail and continue to struggle with properly respecting the rights of Indigenous people. UNDRIP provides a framework based on free and informed consent prior to development as a best practice for state action.

This thesis will discuss issues surrounding the continued exclusion of Indigenous expertise in government. As this is an issue with a very broad scale and sees different iterations of this problem across different continents, countries, states, and provinces this thesis will focus on Indigenous expertise in Canadian resource management. In 2017, the Stk'emlupsemc te Secwépmc (SSN) governmental body, representing several Indigenous communities in the area of Kamloops, British Columbia, shared a final decision that asserted their Aboriginal authority. No consent was given by the SSN to open up a mine proposed by Polish mining corporation KGHM. It is unique that this Indigenous decision led by Indigenous expertise was adopted in the final decision made by the B.C. government who ultimately grant the certification of any resource project.

This thesis will analyze the question of why Indigenous expertise in the form of the SSN panel review of the Ajax mine between 2010 and 2018 was adopted by the British Columbian government in their decision-making process. In order to answer this question this thesis will first develop understanding of academic literature regarding the factors and mechanics surrounding Indigenous expertise adoption.

This literature review will then be utilized to set up a theoretical framework in which factors that influence Indigenous expertise adoption, such as government goals, are identified and connected. Then this research will operationalize academic insights into variables, such as introducing categorical variables to confirm the presence of Indigenous expertise and provide a methodological framework to analyze the case study on the SSN panel review. This thesis will present findings of this case study according to the EPOR framework and thorough process tracing methods seeking out which expertise was used by whom. Afterwards this thesis will explain why Indigenous expertise was adopted in this case and limitations of this study and will conclude then by looking at the implications this study has in the bigger academic framework.

2. LITERATURE REVIEW

To give academic context to how Indigenous expertise interacts with government, this literature review will discuss what social frameworks influence the use of Indigenous expertise and science in policy decision making. Furthermore, this section seeks to understand how to study concepts related to the Ajax mine case study, bringing together different knowledge systems and agents on an equal playing field while staying sensitive to the different social contexts. Science and Technology Studies (STS), as a field of study, brings together the sociology behind science in the production of scientific knowledge, shedding light on tensions between social factors that usually remain outside of scientific view. The study of STS will help to position the study of expertise when expertise itself starts to interact with Indigeneity and colonial legacy. STS scholars provide a framework that will allow for discussions about the nuances of Indigenous expertise and how Indigenous knowledge use transforms the common understanding of expertise.

2.1 What is expertise.

2.1.1. Traditional views on expertise

Expertise takes on a central role in decision making in modern government (Meshi et al., 2012). Knowledge and expertise come in many different forms and can work differently depending on policy, political, societal, economic, and many other contextual factors (Boswell, 2009). Most widely known is 'western' scientific knowledge (S. Harding, 2011). After the Second World War, it was western science that was heavily globalized and firmly rooted in global scientific institutions, leaving little to no room for other types of knowledge to hold any legitimacy in the eyes of global westernized institutions (S. Harding, 2011).

Western scientific knowledge is deeply rooted in ways of conceptualizing phenomena according to ancient Greek and Renaissance philosophies (Mazzocchi, 2006). It favours analytical and reductionist methodologies that attempt to digest knowledge in a positivist and materialist manner, communicating this through extensive writing. The idea of 'good' science to this day is grounded in isolating studies in

experiments, limiting as many contextual factors as possible (Mazzocchi, 2006). Western knowledge also goes through a process of certification by knowledge societies, such as peers or institutions (Miller & Neff, 2013) . In the views of western science, only knowledge produced in line with western scientific practices is deemed as factual (Lee et al., 2011).

In the field of policy expertise, experts use the knowledge framework of western science to legitimize and justify their findings (Grundmann, 2017a). If findings are presented after thorough experimentation and proper reporting performed by a community, such as scholars and researchers that are known to practice 'good' scientific research, these findings are seen as truthful. Information presented through a scientific framework transcends opinion and become fact (Hess & Sovacool, 2020). Western science is characterized by finding conclusions using isolated indicators which can be measured either by computers or other quantifiable data collection methods (Jasanoff, 2017). Western science tries to achieve the highest degree of simplicity, both in measurement and description, and tries to develop understanding of the material world using these rigorous methodologies (Lee et al., 2011).

2.1.2 Opening up a more pluralistic view on expertise?

The use of scientific knowledge is inherently a socially determined practice (Jasanoff et al., 2012). STS is a field of study that mixes multiple academic disciplines and puts the practice and use of science in a sociological context. Expertise can be based on many other factors, rather than how well it fits into scientific methodologies. Expertise can be acquired in ways different from scientific structures, through either experience, locale, or other social factors (Mazzocchi, 2006). How this expertise is presented can also divert heavily from what is prescribed by western scientific standards. Knowledge can be presented through conversations, stories, informal reports, chats, or many other different forms of communication (Bhupatiraju et al., 2012).

Indigenous expertise as another non-western knowledge type is very much dependent on how it is regarded by social institutions (Watson-Verran & Turnbull, 1995).(Restivo, 1995). This notion is informed by Max Weber's concept of 'East' and 'West' (Hobson, 2011). Indigenous knowledge falls outside of what the West compartmentalized as science, and this has significantly limited the power of Indigenous knowledge (Foucault, 1980; Nadasdy, 1999; Said, 1978).

Science is cultural, and cultural power systems heavily influence how knowledge is consumed (Martin et al., 2012). Problematizing the western centric approach to science in policy making has been fuelled by counter-historical arguments which have challenged the foundations of racism, discrimination, colonialism, and human rights violations upon which many Western knowledge institutions are founded (Terrall, 2011). What the West produces is seen as truth, while other knowledge systems are put aside as based on myth (Scott, 2011).

Making space for alternative forms of knowledge is crucial to tackling societal challenges (Boswell, 2009; Sleeboom-Faulkner et al., 2017; Weber & Khademian, 2008). Key to breaking down these barriers is to approach the research of expertise within the social context in which it is nested (Grundmann, 2017b). STS studies focus on the question of how, whose, and which knowledge is recognized and utilized in solving complex policy issues (Åkerman et al., 2020). It is often based on the perception of which community can hold the best possible expertise based on background, scientific approach, and ways to communicate issues (Åkerman et al., 2020). The line of what makes an expert or not becomes increasingly blurry in modern policy advice; what constitutes as expertise is determined socially (Coopmans & Button, 2014). The study of science and knowledge adoption increasingly calls into question how social actors use different technologies and sciences to approach real problems.

Nadasdy notes the stark juxtaposition of Indigenous "traditional" knowledge, compared to "scientific" knowledge, as being not reliable, mythical, or not based on fact (Nadasdy, 1999). Indigenous knowledge exists in a space which is assumed to be intuitive, oral, and qualitative whereas science exists more in an analytical, reductionist, and quantitative space. This difference of western science being more reliable has become the core within the positionality of Indigenous knowledge. It is not seen as science in a western sense thus has been seen as categorically less 'reliable' (Nadasdy, 1999). Within the policy field of ecological management, knowledge 'integration' became the new goal of policy makers who combine "Western" science with Indigenous knowledge to create more holistic policy (Nadasdy, 1999). The use of Indigenous knowledge has been captured heavily by symbolic use of governance (Duerden & Kuhn, 1998). Severe limitations on the actual impact that Indigenous knowledge could have on environmental policy were predominantly caused by this symbolic use. Indigenous knowledge keepers

also made concessions through the process of 'westernizing' Indigenous knowledge to become more intelligible to a non-Indigenous audience (Duerden & Kuhn, 1998; Nadasdy, 1999).

2.2 When is expertise used in governance?

The influence of policy experts has become central in discussions about government policy (Howlett et al., 2016). Good governance cannot rely only on politics. Governments need experts to function (Howlett et al., 2016). Experts shape much of the direction of policy based on knowledge and research (Howlett et al., 2016). Modern governance is under increased pressure to base public policy on science (Krick et al., 2019). This links back to the growing demand of the public to be able to see how governments and states execute public demands and to understand if policy work is the best possible quality (Meyer & Rowan, 1977; Yearley, 2012). Governing without using science and expert knowledge is seen as irresponsible, low-quality, and an overall sign of bad governance (D. Carpenter, 2001; D. P. Carpenter, 2014). Adopting experts in governance agendas is crucial to make legitimate, higher quality and more effective policy (Howlett et al., 2016; Krick et al., 2019). This has been called 'the fact of expertise' (Christensen et al., 2023, p. 11). The inclusion of expertise is inherently part of good governance. Research underpins political gain and also helps to make any type of policy more effective. This again reinstates the central position that research and expert work has in policy development and delivery.

Halligan (1995) reviews how different governmental structures allow or exclude certain types of expertise. This does not answer the finer mechanics behind expert knowledge and knowledge adoption, but it focuses the contested and scrutinized positions public policy experts take within the greater governmental structure. What can be seen is that policy advice is more likely to be received if it is in line with dominant political trends and be bypassed if it pushes against these trends (Halligan, 1995; Waller, 1992; Williams, 1990). This reflects the strong hierarchy assumed in these governmental institutions. The degree of difficulty of a problem especially becomes recognized as a big factor that

determines knowledge use in a network (Weber & Khademian, 2008). As problems became increasingly more complex, the political field is forced to consult experts to deal with them.

Reflecting on the discussed literature on knowledge use and politics can support this too. Boswell (2009) concludes that different sources of legitimization, such a rhetorical or formal structures, also determined what knowledge is used for; is it used to support a political ideology or to solve a *Wicked Problem* (Weber & Khademian, 2008). A fine mechanism between change visibility and government attribution through policy intervention (Boswell, 2009). Based on the balance of risk and reward, the use of knowledge is an instrumental, legitimizing (or symbolic), and a substantiating matter (Boswell, 2009). Knowledge use can become a government instrument for policy legitimacy; more expert support shows that a government has more legs to stand on in moving forward with policy, showing necessity and viability proven by experts in the eye of the ever-sceptical public (Boswell, 2009). Boswell (2009) argues to retain focus on the symbolic use of knowledge in the political battlefield, suiting up politicians to withstand risky decisions. Is political legitimacy truly at the centre of the use of knowledge in developing policy? Is knowledge merely symbolic, or is there more to it? This puts big question marks on when knowledge is used. It is important to be critical of when knowledge and which knowledge is used.

3. THEORETICAL FRAMEWORK

The discussion of an extensive background of academic work helps to conceptualize the different factors at play when discussing different types of expertise and how they are used. In this research two camps of expertise can be identified: western scientific expertise and indigenous expertise.

Western scientific expertise is based on the material and immediately observable and discusses material phenomena by identifying indicators which can be properly isolated and measured. Indigenous expertise takes a much more fluid approach in describing phenomena, blending the material world with the metaphysical world in order to explain observed mechanisms. Where western science tries to isolate phenomena from context to be studied as 'pure' as possible, Indigenous knowledge observes with context in mind. Western science justifies and explains itself in extensive reports, whereas Indigenous knowledge stores information in stories and oral histories. The difference between these knowledge systems extends beyond a mere methodological scale.

Western and Indigenous knowledge systems culturally are judged very differently. Western science is seen as truthful, reliable, and factual. Indigenous knowledge is seen by western society as much more subjective, unreliable, and vague. These judgements are shaped through centuries of a dominant Eurocentric world view, which views other knowledge systems through racist, discriminatory prejudices. This also underscores the inherent social nature of science. Science does not exist in a vacuum but is used by societies to construct their understanding of the world. STS links the social nature of practicing science within academic disciplines. Expertise and the distinction of what makes an expert is constructed by various social actors. What is seen as correct, justified, and reliable is determined socially. This also subjects different types of knowledge systems to various social power systems, such as racism, eurocentrism, and colonialism.

When expertise used in governance is determined on an institutional basis, expertise is mainly used to justify and legitimize government action. It also forms a basis upon which good policy is developed that is grounded in research. However, the selection process of which experts to include is often politically or socially determined. Which experts can be included is first determined by the types of

expertise which are acknowledged by the institutions. Whether knowledge communities are invited to present their views, is also determined by how such communities are politically aligned with the institution. The more a knowledge community deviates from the institution, the less likely their opinion will be included. Perceived reliability and problem ownership also determine which communities get invited. Lastly, legal systems can demand certain groups to be invited in certain contexts.

4. DESIGN

4.1 Objectives and approach

This research will describe how different knowledge systems are used within Canadian resource management. A number of variables will need to be established to complete this study. First, a categorical variable that determines if a community uses Indigenous expertise needs to be set up. This can be drawn from analyzing which basis knowledge is built from: oral histories or western scientific reports. Observing which sources are used is essential to determine what type of knowledge is used. This categorical variable is not necessarily exclusive, as a community can use both types of knowledge. Implementing a continuous variable by observing which knowledge source is used predominantly can inform to which degree a community relies on Indigenous expertise. It is also important to implement categorical variables to order in which context expertise is used, and to explain cultural, environmental, social, or in other phenomena. Furthermore, implementing categorical variables where Indigenous expertise was used in the final decision can inform the impact certain types of expertise had in the outcome. In order to approach these different variables, qualitative data collection methods are used. Operationalizing variables regarding Indigenous knowledge faces a number of challenges. Indigenous knowledge is a very diverse system of knowing. It vastly differs across time, place and cultures (Hernandezid et al., 2022). Therefore, there is no one way to define and measure it consistently. Indigenous knowledge is also often stored in oral traditions, making it difficult to easily capture data using quantitative methods. A more qualitative approach will be necessary with a more fluid analysis framework to tackle this issue. Lastly it is important to be ethically sensitive to the ownership and informed consent of Indigenous people in using their knowledge in academic work.

4.2 Case selection

This thesis will explore a very in-depth mining review of the proposed Ajax Mining project within the territory of the Stk'emlupsemc te Secw'epemc (SSN), a geopolitical governance group of the Secwepemc Nation in British Columbia, Canada. The mining review performed by the SSN is the first

of its kind as it was a mining environmental assessment independently performed by Indigenous peoplee utilizing their own laws and systems of governance (Tk'emlúps te Secw'epemc Nation, 2017). The SSN is comprised of the Tk'emlups Indian Band and the Skeetchestn Indian Band, which are legal entities created by the Canadian government, and whose members are part of the larger, traditional, Secwepemc Nation.

The Ajax Project's original proposed location was to be in Kamloops, British Columbia, Canada, 400 km northeast of Vancouver, the province's biggest city. The project was to include an open pit copper and gold mine and an ore enrichment plant developed by the Polish KGHM mining company, which partnered up with the Abacus Mining & Exploration corporation (KGHM, 2018). The project was proposed in 2010 and KGHM published a feasibility study of the area in 2012, later updated in 2016. It was estimated that the mine could process up to 65 tonnes of extraction a day and that the mine's infrastructure was to be moved further away from the city of Kamloops (KGHM, 2018). In accordance with B.C. and Canadian law, the Ajax project underwent an environmental assessment (EA) which reviewed the impact the Ajax project would have on the proposed mine surroundings (ERM, 2017). After this assessment the Ministry of Energy, Mines and Petroleum Resources of British Columbia decided against granting an Environmental Assessment Certificate for the project in 2017 and in 2018 the Canadian government, through the Governor-in-Council, issued a negative decision regarding the Ajax project.

What made this assessment a true landmark for resource management in Canada was that the advice from the SSN community was upheld by the B.C. government. This is a ground-breaking moment where promises as defined in UNDRIP Article 32 and significant developments within Canadian federal, provincial, and Indigenous law come together in tipping the tide of upholding Indigenous agency in Canadian resource management. Remarkably, the SSN-Ajax mine assessment has remained undiscussed within academic context. The acceptance of this Indigenous shaped piece of policy by institutions which have historically ignored or even tried to erase this perspective altogether marks a very interesting turning point in the development of Indigenous rights globally.

The fact that the SSN-Ajax Mine environmental assessment happened within Canada naturally shapes a fundamental question: How did developments of Indigenous Presence within Canadian Institutions lead to the acceptance of Indigenous Expertise? This question aims to uncover the framework behind the acceptance of the SSN review. The fact that both the state and mining companies participated in the SSN review, and have abided by its outcome, puts tension on settler state legitimacy, Indigenous rights versus state interest, and how current and future resource management projects are shaped. Nevertheless, an in-depth review of the institutional mechanics behind the SSN environmental assessment can help to further develop frameworks to uphold Indigenous rights and land ownership successfully and ethically.

4.3 Data Collection Methods

Within the discussion of the Ajax mine several parties were involved. All these parties have released statements regarding the Ajax mining reviews and are available online via the respective institution website or via media channels such as CBC. The BC government provides an extensive database of all projects that are processed by the Environmental Assessment Office via the EPIC (EAO Project Information Centre) database. This database provides documents which were submitted to the provincial government by KGHM, Kamloops, and the SSN. It also contains the extensive final assessment report in which the final decision and rationale behind it are shared. It is also predominantly through these government resources which relevant actors for the decision-making process could be verified.

KGHM provides some information regarding the Ajax mine currently via the KGHM website. The collection of web pages predominantly provides general information about the project. During the period the project was being assessed (between 2011 and 2017), KGHM launched a separate website to inform the public and publish all KGHM publications regarding the Ajax mine. This website, ajaxmine.ca, is currently offline but can still be accessed through the internet archive's WaybackMachine (Internet Archive, 2023). This database allows access to 1508 different versions of the Ajax mine website which were captured between 2011 and 2016, providing access to all published KGHM documents. This does pose some limitations to the accessibility of the data. While much of the

website has been stored, not all the up-to-date versions could be accessed. It is unclear if the newest accessible version of the website on the Internet Archive really is the last accessible version of the Ajax mine website. A small number of documents downloaded from the website also were either inaccessible or poorly legible due to data corruption.

The Kamloops City Council publishes meeting minutes, council decisions, and public inquiries through their CivicWeb portal. This online archive is fully accessible to the public and provides many detailed meeting minutes of council meetings, meetings with the public, meetings with KGHM, and other reports of council activities. This provides an extensive database through which the opinions of the citizens of Kamloops, the council, and actions taken by the council are reported and stored. This allows for the tracing of steps taken by the council during the assessment of the Ajax Mine.

The SSN publish information about the history and culture of the Stk'emlupsemc Te Secwepemc via their own website. More information about the governance structure and partnerships of the SSN are also available here. The website also contains an online archive of media articles, press releases, newsletters, and other reports produced by the SSN. Videos explaining the cultural heritage, the sacred connection of the nations to Pípsell (the proposed site for the Ajax mine), and documentation of the SSN Review process are published on a separate part of the website dedicated to the Ajax mine review. Most importantly, it is where the Joint Council Decision document is also published. This document provides a detailed and in-depth review and explanation of the SSN's absolute rejection of the Ajax mine review. The document was meticulously crafted and provides an in-depth overview of oral histories, knowledge keepers, and experts that shaped the SSN final decision.

These sources also immediately reveal the several solutions proposed by KGHM, the SSN, and the City of Kamloops, and the conflicts that these opposing opinions have brought forward. Additionally, empirical findings can be substantiated with academic contextualization through research performed by the University of British Columbia (UBC) and other academic sources available through the Leiden University Catalogue. To develop a better understanding of both the legal frameworks that surround Indigenous people and the legalities involved with the SSN case I will be interviewing Wendy Baker, who worked as a lawyer for the SSN. The review process performed by the SSN was very extensive

and intricate. Many cultural practices and oral histories of the SSN are hard to convey via text only. The help given by Wendy Baker is a vital source of information to provide more clarification on the SSN review and complex legal structures behind Aboriginal rights. The interview process was essential to verify the accuracy of the interpretation of other primary documents used in this research. This interview will greatly help to get a more developed insight in both the institutional change and position of Canadian government from a legal point of view and the intricacies and positions of the members of the SSN.

4.4 Analysis Method

Social construction of technology (SCOT) is a very prominent theory within STS that interprets technological development as an inherently sociological phenomenon (S. Harding, 2011). SCOT puts forward the thesis that the reason why certain policies are adopted or rejected has to be found within the social world (Pinch & Bijker, 1984). The reference to the social context is necessary because whether certain types of knowledge are 'reliable' or not is inherently defined by the groups and stakeholders that are involved in making such definitions (Pinch & Bijker, 1984). Interest is put on how knowledge and policies are developed and who is included or discarded in that process as it leads to the 'death' of variations of a certain policy (Pinch & Bijker, 1984). SCOT is not only a theory but also a well-informed methodology to discuss the social construction of policy through a process called Empirical Programme of Relativism (EPOR).

EPOR is a formal methodology which analyses the steps in what causes a concept's failure or success through discussing the conflicts seen by different social groups in the judgement of those concepts (Jasanoff et al., 2012). EPOR has been strongly influenced by the idea of a strong programme as defined in Bloor's sociology of science, where science is the result of a long process of social causation (Kusch, 2012). The most important criticism is that Pinch & Bijker do not include the actual societal impact of technologies discussed (Russell, 1986; Winner, 1993). Furthermore, SCOT, and especially the EPOR approach, needs to be morphed into a discussion about where policy development lies in the political process (Russell, 1986). The social groups discussed by Pinch & Bijker are assumed to be politically neutral; they are simply entities which introduce variants of a solution to a problem. Russell (1986)

proposes to look at the influence that technical experts have in the social and political arenas by contextualizing the production of a certain policy outcome through social institutions such as laws, social, or economic developments. This makes SCOT a highly interesting framework to morph into a research method if it is appropriately adapted to have a more holistic inclusion of different contextual factors.

Using SCOT helps tremendously with structuring this research. While a lot of work on STS gives context to the difficulties non-western types of knowledge can face, such as exclusion and mystification, many STS scholars do not provide a comprehensive framework on how to properly analyse these phenomena. SCOT theory, with its EPOR framework, can provide a methodological structure that can be adapted to be more sensitive to modern Indigenous issues. This is mainly done by paying extra attention to Indigenous voices in analysing the Indigenous position and remaining critical of positions expressed by western institutions.

Scholarship on analysing expert influence, which is also central to the SCOT analysis performed, suggests that process tracing is an excellent method of data collection (Christensen, 2023). Supplementing the SCOT analysis with methodologies drawn from expert influence studies can further tackle the limited applicability SCOT is assumed to have (Jasanoff et al., 2012; Russell, 1986). The third EPOR step will discuss what parts of the solution provided have gotten institutionalized to determine how formative and influential a certain method of policy decision has been.

The policy solutions generated by Indigenous experts can fit into a network in which solutions from other parties can be analysed against the conflicts and problems arising between these stakeholders. Information from a large body of scholarship on the inclusion of Indigenous knowledge on a global stage can be useful in contextualizing this relationship. Groups such as states, companies, Indigenous groups, and citizens can all be included in the EPOR analysis to successfully contextualize the development of a certain solution. Crucial in this step is to pay attention to the social and political power factors that can influence the relationships between these groups as they're usually not situated on the same power level. Factors such as a public opinion in favour of Indigenous autonomy can heavily influence the outcome of certain public dilemmas (Boswell, 2009). The first step takes shape in the

following model where different actors present different policy drafts. In turn, the government makes a choice between these proposed methods and makes a final choice.

The proposed projects and why to choose certain technologies do not reach a neutral government. Socio-political factors that are attached to certain policy outcomes are at the core of what decision government makes. Internal and external interests combine to make a set of factors which government than can use to make final choices(Boswell, 2009; Grundmann, 2017b). Internal factors can be profits, resource availability, and other economic factors that could benefit government. Other factors are determined due to outside public interests, such as perceived cultural significance (and if government finds that important), health risks, prevalence of Indigenous activism, or strength of the land claim asserted by a party (Antonyuk et al., 2022; A. Harding et al., 2012). Every provided policy review method presents a 'weight' that government can use to measure perceived benefits against downsides to inform a final decision. The actual 'weight' is decided by government, and government is heavily influenced by its underlying social factors and political tendencies. Which factors are taken into account and how heavily these weighs in the final decision of government heavily depends on societal factors.

This research will closely follow the EPOR framework and apply it to the SSN-Ajax mine review case. Informed by the traditional critiques on SCOT, the EPOR framework can be reviewed and developed into a more sensitive theoretical framework. Classically, EPOR introduces SCOT in two stages: interpretive flexibility and closure (Pinch & Bijker, 1984). The SSN-Ajax mine review clearly follows different stages of development, which neatly falls in line with the EPOR research framework.

The first stage of interpretive flexibility aims to reconstruct different project proposals and analyse the problems and conflicts these interpretations give rise to and connect these factors to the outcome or final version of the public policy. To successfully analyse these steps, one first identifies the actors who are involved in the production of policy (Pinch & Bijker, 1984). Then it is important to discuss the design flexibility. This comes down to discussing the different proposals given by the different parties. It is essential to pay close attention to which expertise and knowledge type is used and in which context to measure to what extent these proposals have been shaped by Indigenous knowledge and expertise. Discussing who provided what information in what form will be at the center of discussing the

interpretive flexibility of the Ajax Mine assessment. Finally, the problems and conflicts that arise through the different projects that are proposed are discussed. In this part contradictions and dilemmas that are raised through the different proposals are expanded upon. Again, attention is paid on what knowledge base proposals are based and which types of knowledge and expertise are involved in the tensions between agents.

The second stage is the Closure stage, this signifies the end of policy development, this can either be caused by *rhetorical closure* where the problem is seen as solved or by a *redefinition of the problem*, where the current policy is deemed obsolete and the whole process is started over (Pinch & Bijker, 1984). In this part the final decision of the government is reviewed in depth to see which expertise was at the core of this decision. This is an important point where the degree of Indigenous expertise can be measured through collecting data that is referenced by the provincial government in regard to the SSN final decision statement. Due to heavy criticism, this version of EPOR has deemed that an extension of SCOT theory is necessary by adding a third step: discussing the lasting impact of the analysed policy (Russell, 1986; Winner, 1993). In this part governmental legislation and data from the media are analysed to see if Indigenous knowledge became more intertwined within the process of recourse projects on Indigenous land by default, especially on land which remains unceded. This provides a dataset via which the different knowledge systems are developed and tensions are discussed thoroughly to synthesize conclusions regarding which factors helped the SSN to put forward their review.

5. ANALYSIS

This analysis will closely follow the EPOR framework, discussing the proposals made by KGHM, The City of Kamloops, and the SSN for the plan of developing the Ajax mining project area. Before diving into the exact case some time will be spent on the history of mining and resource management in Canada and the development of Aboriginal rights to provide proper historical and social context to the SSN-Ajax mine review. This falls outside of the exact EPOR framework but does follow the logical mechanics it proposes. To fully understand the data that exists within the EPOR dataset a well-developed social-historical context is necessary. This will also help to later discuss why and how the SSN case came to be.

5.1 Setting the stage.

5.1.1 The history of Mining in Canada

Canada has a long history with resource extraction and mining. As a resource colony, the core *raison d' etre* for Canada was to use the rich resources of the country for the benefit of British and French colonial powers. Indigenous people across Canada have used these resources since time immemorial and continue to use them for local industry and art today. The colonial use of Canadian resources started as soon as European contact was established. Wood, furs, and precious stones and minerals played a central role in the first barter trade between the European settlers and the Indigenous inhabitants. The knowledge of Indigenous people was essential for European settlers for the first mining operations in the mid-17th century and is often still used for new mining ventures, predominantly without Indigenous consent. European land acquisition first was negotiated through treaties between Indigenous and European settler parties. However, consent given by Indigenous people at the time was often purposely ill-informed, and treaties were quickly skipped as the settlers ventured further west. As European colonization spread across the continent, more and more resource rich land was seized from the original Indigenous inhabitants for European expansion and economic gain on the European continent. Through violence, the spread of disease, and harsh discriminatory governmental measures, the Indigenous

people, who lived under the new Anglo-Canadian rule, were practically evicted from their own traditional lands.

The colonial rush for Canadian resources picked up speed during the European industrial revolution, as the need for ore and coal began to reach it colonial age peak. The construction of the Canadian Pacific Railway further increased European expansionism. It is also important to acknowledge the harsh and unethical labour undertaken by a predominantly Chinese Canadian immigrant population that was essential for the creation of this railway. The construction of the Canadian Pacific Railway dislodged the Indigenous inhabitants further west and north in the country. As more Canadian provinces were created the Crown seized larger territories without any Indigenous consent or involvement. The province of British Columbia itself, which is the province where the people of the SSN have existed since time immemorial, is ninety-five percent unceded traditional First Nations territory. The creation of British Columbia is synonymous of the massive land grab by the Crown.

The complicated relationship between Indigenous people and European expansionism under the British Crown gives rise to many difficult conflicts surrounding cultural practice, land claims, practicing traditional governance and many other fronts. Specifically, the Canadian resource industry nowadays still operates without prior informed consent given by Indigenous people. The massive economic benefits that Canadian and International resource companies, and the Crown, enjoy from the resource rich lands are also not shared proportionally with the First Nations on whose lands these massive and often destructive activities are located (W. Baker, 2023). In short, the Canadian government and mining companies enjoy the benefits of British Columbia's resource rich land while many Indigenous people are left with the environmental and public-health repercussions of the mining and forestry Industry.

5.1.2 The rise of the Crown's Duty to Consult

Central to the development of the position of Indigenous knowledge use within Environmental Assessment is the introduction and development of the Crown's duty to consult and accommodate (W. Baker, 2023). The Crown's legal duty to consult also is central to the efforts of reconciling the long and complicated history and suffering of Indigenous People across the country due to Crown activities, such as mining. On top of obligations the Crown, which represents the federal and provincial governments,

has in treaties, Canadian case law also states that the Crown carries a duty to consult with Aboriginal people (Sanderson et al., 2012).

The Canadian Supreme Court grounds the Crown's duty to consult in a long series of cases brought by Aboriginal people against the Canadian Government. The case of *Haida Nation v British Columbia (Minister of Forest),* decided in 2004, was revolutionary in shaping the relationship between governments and Indigenous people (Mandell, 2002). The strong claim Aboriginal people have to the land makes it only reasonable to sufficiently consult with the Aboriginal people when the government seeks to significantly change the land. It forms the core of Aboriginal Law to facilitate and promote mutual respect and reconciliation (Manley-Casimir, 2016). This does not, however, immediately bridge the significant gap that exists between the Crown and Aboriginal people, as many human rights practices remain unclear (Russ, 2006). The duty to consult in and of itself also finds significant limitations and faces many conflicts (Sanderson et al., 2012). The specific circumstances when this duty is triggered are variable. It remains challenging for Indigenous people to bring forward land claims to the government, as much of this knowledge is captured in cultural practices that stand far from governmental procedures (Mandell, 2002; Russ, 2006; Sanderson et al., 2012). Nevertheless, the Crown's duty to consult remains a powerful and essential agreement to improve governance with the Aboriginal people of Canada.

5.2 EPOR Analysis

5.2.1 Step 1: Interpretive Flexibility, the different proposals

In this section the different iterations of the Ajax Mine proposal are discussed. Firstly, the original concept of the Ajax Mine project as proposed by the KGHM is described. The governmental demands are then discussed separately to see which demands from government the Ajax Mine should adhere to. Following the governmental discussion, the demands from the general population of the City of Kamloops are discussed. Lastly, time will be spent on discussing the demands of the SSN regarding the Ajax Mine. The collection of this data will then allow for a comparison between the different versions

of the Ajax Mine that could exist and which tensions between the versions arise. This could be supplemented through documentation of discourses between KGHM, the B.C. and Canadian government, Kamloops, and the SSN.

5.2.1.1 The British Columbian and Canadian government demands

The proposed Ajax mining project, as a major mining project, triggered several legislated certification and permitting processes (Pooler et al., 2011). As the project was going to exceed 75,000 tonnes of mineral extraction a year in B.C. it would trigger an Environmental Assessment under section 8 (1) and (2) of the Reviewable Projects Regulation to the BCEAA (*Environmental Assessment Act (E10.1)*, 2018). For projects assessed under this Act, the Act stipulates the proponent must disclose potentially adverse environmental, economic, social, heritage and health effects that may occur during the life cycle of a project. The process includes stating stakeholder opportunities, consultation with First Nations, and technical studies to identify potential significant adverse effects. To gain governmental approval, strategies to prevent and reduce adverse effects must be comprehensive, well supported, and sufficiently effective. Furthermore, the project would also trigger the need to comply with the federal *Environmental Assessment Act* due to the project exceeding the production of ore of 3,000 tons a day (CEAA, 2003; Pooler et al., 2011). The Ajax Mine Project needed to satisfy both provincial and federal obligations to protect the environment and mitigate damage to the environment and human health. Results must be presented through reports from experts on geology, public health, and environmental studies. Consultation with First Nations is not as streamlined, and Indigenous input presented can be reported in a more informal manner.

On top of this, KGHM needed to apply for several permits (Pooler et al., 2011). On the provincial level KGHM is obliged to follow rules and ways of conduct as stipulated in the *Land Act, Water Act, Environmental Management Act,* and the *Mines Act*. Cutting down forested areas, using fresh water, producing air emissions, and planning to reclaim the land after mining activity is finished, all need to be approved by government. KGHM is obliged to work within health guidelines set up by the Interior Health Authority, applying for and working in compliance with operation permits that aim to protect drinking water and the responsible disposal of sewage. On a federal level KGHM must comply with the

Fisheries Act and other wildlife Acts. The *Fisheries Act* stipulates that only a certain amount of damage is allowed to the harmful alteration of fish habitat in Jacko Lake and Peterson Creek (waterways impacted by the proposed mine). KGHM also must act in line with Canadian Health, Explosive Storage, and Transport regulations during the construction and operation of the Ajax Mine. The data to verify if KGHM acts within regulatory boundaries needs to be collected, either through studies that test water and fish habitat quality through experiments and surveys, land surveys, agent checks, or other government regulated verification methods.

5.2.1.2 KGHM Proposal

KGHM's goal was to open up the mine in light of increasing copper and gold prices (KGHM, 2018). The proposed mine was to open up just south-west of the city of Kamloops, BC, on the Crown owned Ajax East and West Pits (Pooler et al., 2011). According to the environmental assessment laws in B.C., it was mandatory for KGHM to explicitly express the social and economic benefits of the plan while considering the potential harm it could do (ERM, 2017). A report prepared by global environmental consultancy agency Knight Piesold extensively elaborates on the KGHM Ajax mine Proposal. Mineral exploration and production in the Ajax project area traces back more than100 years, with mining exploration started in the early 1880s (Pooler et al., 2011). The Ajax mining property was held by private parties over its exploitation, changing hands every 30 years. KGHM planned for the project to be located near the Trans-Canada Highway No. 1 and the Coquihalla Highway with many truck and waste management services to be placed within Kamloops city limits. The regional economy of the Kamloops area already consists predominantly of resource-oriented industry, such as forestry, mining, and agriculture. With a population of around 86,376, Kamloops is one of the bigger cities located in the South-Central Interior of British Columbia.

KGHM justified the project to develop a 502 mega ton (MT) ore project (Pooler et al., 2011). It was estimated through numerous geological surveys that the life expectancy of a mine this size would last around 23 years, bringing in jobs, economic opportunities for the local First Nations (the Tk'emlups Indian Band and the Skeetchestn Indian Band), and the people of BC and Canada. The project also was

to contribute financially to provincial and federal tax revenues as proposed in KGHM financial analyses (Pooler et al., 2011). KGHM also justified the project was to be settled on suitable land, as the Ajax mining site has had been exploited for limited mining purposes over the last century. Furthermore, the Ajax project would contribute positively to the sustainability of Kamloops and BC, providing economic stimulus and facilitating the acquisition of job skills that can be applied to mining and other sectors in the future. KGHM also pledged to operate the mine in compliance with modern environmental best practices, not only legally offered but in line with corporate environmental, health, and safety policy by protecting the environment and mitigating potential adverse effects of company activities.

The facility would run as an open pit mine right next to Jacko Lake and Peterson Creek (Pooler et al., 2011). Both bodies of water would have to be modified to prevent flooding according to advice from their internal engineering expert bodies. The pit would gain a 169-ha size after five years of operation, extending further to an area of 261 ha at the end of the mine's lifetime reaching a depth of over 500 meters. The facility would run 24 hours a day, 365 days a year, performing crushing, grinding, and shipping activities. A significant fresh water supply would be necessary to cool the machinery and sludge the crushed material. Artificial ponds were to be constructed near the shallow Inks Lake, which also would be used to temporarily bleed surface runoffs. Further water intake would be supplied from Kamloops Lake, which is part of the Thompson River system. Environmental research performed by KGHM informed that Kamloops is in an arid, semi-desert ecosystem. Due to the dry area, a focus on water recycling was a high priority for operation and waste management purposes. To protect other surface water from oil and lubricants deposited by machinery, separate waste collection activities would be installed. Solid waste was to be processed and discarded as a slurry, after being filtered and put in a protected basin to reduce ground and surface water contamination, provide dust control, and allow for vegetative recovering. Furthermore, KGHM would invest in local infrastructure to upgrade local roads and highways, mitigate road damages by corporate vehicles, reduce local congestion, upgrade local internet and communication fibres, and upgrade local electricity infrastructure to be able to operate the mining facility.

The impact of the mining operation would mostly be noticed environmentally, impacting air quality, water quality, and through changing local ecosystems and causing several socioeconomic impacts (Pooler et al., 2011). The mine could impact local air quality predominantly due to dust and airborne heavy metals, and the production of greenhouse gasses from fuel consumption by vehicles and generators. The traffic and industrial activity would also produce noise which could impact surrounding wildlife and citizens of Kamloops due to the proximity of the mine to the local communities.

The project is situated in a water deficit area, adding pressure to local fresh water supply. The construction and use of the mine also were estimated to have impact on local stream and lake habitats. Jacko Lake would need to be modified to accommodate the project pit and rock waste management facility, causing rainbow trout habitats to be lost in the process. The loss of these habitats will, according to KGHM and KP, mostly impact sport fishery, as Jacko Lake is a very famous spot for rainbow trout fishing. Other fish habitats also exist in surrounding waters including for rare and endangered fish species such as the white sturgeon or bull trout. A "No Net Loss Policy" was introduced to reduce these negative impacts. Release of effluents to local bodies of water would reduce aquatic habitat health. It would also affect local irrigation water and human health given the proximity of the City of Kamloops. The construction of the project facilities and infrastructure would also permanently remove vegetation. Local vegetation species, which already were threatened by agricultural activity and invasive plant species, could also be impacted by the release of airborne heavy metals, such as lead, copper, and mercury. The release of these metals also could be harmful to humans in the surrounding area. The operation would create a big change to the visual aesthetics as the landscape is permanently altered.

To mitigate these impacts KGHM first reminded local communities of the economic benefits the Ajax mining project would bring to Kamloops (Pooler et al., 2011). The mine would bring new jobs, accommodation, and economic activity to Kamloops both during the construction and operation phases of the mine. The Ajax Project would also bring in capital to upgrade the previously mentioned infrastructure to accommodate the needs of the mine and population growth of Kamloops. New pumphouses were also to be constructed on the shore of Kamloops Lake to increase available fresh water. KGHM also expressed that they acknowledge the responsibility they carry to engage in

consultation with First Nations and other stakeholders, such as the City of Kamloops and provincial and federal governments. KGHM stated its commitment to maximise the participation during the EA process, without prejudice to any First Nation Rights or Title. KGHM acknowledged that the Ajax Project lies entirely in the traditional territory of the Secwepemc Nation. The Secwepemc Nation, and in particular the SSN, are closest to the project. This raised efforts with KGHM to attempt as much collaboration as possible in order to properly inform local Indigenous communities and address their concerns.

5.2.1.2.1 Breaking down the KGHM knowledge bases.

The conclusions presented in the project proposal are based on various types of knowledge and expertise. The report is structured in which the project history, then the location, justification, project overview, project setting, potential effects, first nation consultation, schedules and permits are discussed (Pooler et al., 2011). The historical overview of the project site is mostly dedicated to the history of the private ownership of the site land.

The process of transactions and transfers of mining rights start by naming the properties created in the 1880s and the continued development which result in the ownership of KGHM are laid out (Pooler et al., 2011, pp. 4–6). The historical overview also includes reports of several drills performed by mining companies that prove how mineral rich the area is. It concludes with a summary of the Crown Grants and mineral claims KGHM holds over the project area. The historical overview is the history of the corporate activity in the area.

The contextualization of the project location is based on geographical and economic factors. The project is placed in relation to major nearby highways, nearby towns, available infrastructure, and other geographical markets such as rivers, lakes, and plateaus (Pooler et al., 2011, p. 6). Notably, these geographical markers are named in their English 'colonial' name. The project is situated next to Tk'emlups and Pípsell, which in English are called Kamloops Lake and Jacko Lake (SSN, 2017).

For the discussion of the geological, ecological, and environmental effects of the Ajax mine project a collection of sources provided by internal engineers, geologists, data scientists, and by government and

other mining corporations active in the region are utilized. To form conclusions around the structural integrity of the proposed mining pit and storage facility KGHM hired Wardrop Engineering to perform preliminary technical assessments of the project area (Pooler et al., 2011, p. 55). Internally performed drill tests and soil experiments determined the ore compositions of the site. To determine environmental and ecological effects KGHM built on data from the BC conservation data centre, habitat studies performed in the 1940s and 1950s, and the BC Species and Ecosystem Explorer published by the BC Ministry of Environment (SSN, 2017, p. 55). To determine impacts of public health KGHM cross checked data from noise and air pollution experiments performed by nearby mines and data from the World Health Organization on the safe levels of relevant indicators.

In the early project KGHM acknowledges the company's responsibility to engage in consultation with local First-Nations (SSN, 2017, p. 45). KGHM provides context about the project's location in traditionally asserted territory of the Secwepemc Nation. KGHM also approached the SSN to work together in order to identify and resolve issues specific to the affected Bands. Agreements were reached to fund future archaeological studies to analyze the degree of presence the SSN has in the area and proof of SSN habitation over the millennia, resulting in the employment of Terra Archaeology for future site reviews. KGHM also offered to fund legal assistance for future negotiations. The working engagement revolved about informing the local Indigenous communities and to mitigate, minimize, or accommodate First-Nation concerns.

5.2.1.3 Kamloops City Council

While the City Council does not have the formal power to accept or reject the Ajax mine, the Environmental Assessment relied heavily on the input of the Kamloops community, as represented by the Council (Pooler et al., 2011). Early public inquiries put forward to the Council show worry from the community about how the mine would drastically alter the grasslands just outside of the city which was often used for recreation (MCK, 2011a). Shortly after more concerns were added about the environmental effects the mine would have, the release of toxic materials into the air and environment, the large amounts of water necessary to run the whole operation, and impacts on the lakes in the area (MCK, 2011b). The public concerns quickly prompted the wish to set up an Independent Joint Panel

Review for the Ajax Mine Project (MCK, 2011c). Several public workshop and council meetings led to a special council meeting on July 17th, 2017, in which final recommendations were drafted on behalf of the City of Kamloops (KGHM, 2018; MCK, 2017). The propositions drafted in this document summarize a number of reports by the British Columbia Environmental Assessment Office (BCEAO), the Canadian Environmental Assessment Agency, reports released by SLR Consulting, which was hired as an independent consultant to assist in the decision making, and feedback from citizens and local business owners. Recommendations were shaped based on various factors such as air quality, monitoring, water, and other socioeconomic and environmental factors. This decision lay with the BCEAO. Either way, the City of Kamloops presented a set of recommendations to shape a future with KGHM and the Ajax Mine.

The letter draft called first for very stringent monitoring of the operation while it is happening, as many reviews before were based on predictive models (MCK, 2017). The City Council also wished to see an Inter-Agency Working Group (IAWG), of which the City would be a member, to be established. KGHM would have been required to implement the IAWG prior to construction. Terms of Reference for the IAWG were to be set up by BCEAO, and KGHM was directed to solicit and incorporate input from the City of Kamloops prior to and during any project activities. Constant communication was to be central to the IAWG between different parties. The City of Kamloops also recommended setting up an Operation, Construction and Decommissioning Management Plan developed by KGHM to be presented to the City Council and that any City concerns must be addressed before finalizing these plans. The City of Kamloops also recommended that the city be included in the setup of Monitoring and Management plans to remain in control of and informed of Project impact and methodologies, which should be adapted to address City concerns.

To further mitigate adverse effects on air and water quality due to the project, several limits were proposed (MCK, 2017). The City of Kamloops recommended that the BCEAO include as a condition of Project Certification that KGHM be accountable for achieving 90% active mitigation of air quality improvement measures, which would constantly be monitored by an Independent Environmental Monitor (IEM) based on data from a real-time air quality station. This data should always be available

to citizens. Extra attention was also called to the reduction of dust emission, lowering the 24-hour dust average. Expanding on water protection measures is also included in the recommendation. Continued monitoring of the impact the project would have on surrounding lakes such as Jacko Lake on water level and quality was recommended. Further, continued monitoring of the state of aquatic life was also to be performed by KGHM. The City Council demanded that prior to construction more studies on the exact status of Jacko Lake and its geology and ecology were to be performed to have a more exact baseline. A further very big demand of the City Council was the reduction of noise disturbance created by the mine, especially since it would be very close to neighbourhoods on the edge of Kamloops. BCEAO was recommended to set up a condition that KGHM, in its Blasting Management Plan, would reduce the size of the blasts used, lower the overall noise planned by the project by another 20%, and construct multiple monitoring locations to monitor the actual noise disturbances.

The city also made extra demands to address worries of light pollution, adverse socioeconomic effects, and the increased pressure on the Kamloops transportation network (MCK, 2017). Retaining a dark sky above the city was to become an additional condition set by the BCEAO to protect the interest of the Kamloops Astronomical Society. The City also demanded that the BCAO set up a condition prior to project certification that KGHM and the City of Kamloops enter into an agreement to compensate the City for use of municipal services. KGHM was to prepare a Socio-economic Monitoring Program to monitor property values in surrounding neighbourhoods. KGHM was to compensate for additional property value loss if it would occur. Lastly the City also recommended to the BCEAO that, prior to construction, KGHM and the City of Kamloops reach an agreement on road usage, maintenance requirements, road network adaptions, and measures to restrict and enforce the number of KGHM vehicles within Kamloops.

5.2.1.4 Stk'emlupsemc te Secw'epemc Nation

The Stk'emlupsemc te Secw'epemc (SSN) Joint Council was created as a response to the plans of the Ajax Mine project. The Ajax Mine lies completely in the traditional asserted territory of the SSN. The Stk'emlúpsemc te Secwepemc claims both Aboriginal rights and Aboriginal title to Secwepemcúlecw

(Secwepemc Traditional Territory) including over Pípsell and the Project Area (W. Baker, 2023; SSN, 2017). Pípsell is the traditional name for the area which includes the proposed mine site, and Jacko Lake (W. Baker, 2023). Aboriginal title to Pípsell was asserted by the SSN through the fact that Secwepemc people have lived on and practiced land stewardship over this area from time immemorial.

The Secwepenc people were dispossessed of their lands through various Colonial Laws and expropriations, allowing non-Indigenous people to acquire colonial land tenures over these lands (SSN, 2017, p. 3). This transfer of land to private landowners was never consented to by the people of the Secwepemc Nation. Their Aboriginal title has existed before any Crown title, and the land involved in the Project was never surrendered to any Crown authority. Stsq'ey' (Secwepemc laws) govern the land on which the Ajax mine is situated. This means that relationships with outsiders, guests of the land, land access and tenure, and accountability to the land are governed under Stsq'ey.' It therefore is central to the SSN that the land use of Pípsell and the surrounding area are governed according to Stsq'ey'.

Within Stsq'ey,' the concept of yecwemínem involves the caretakership, management and stewardship of lands and resources (SSN, 2017). These are the responsibilities of the SSN, translating to monitoring and protecting the local ecology, implementing management regimes, protection, and coordination and implementation of treaties between Indigenous Nations neighboring Secwepemcúlecw (Secwepemc territory). Pípsell is a place from which many oral histories originated. These oral histories are foundational to Secwepemc Stsq'ey' and confirm the intricate and reciprocal relationship between humans and the environment. The review process conducted by the SSN was informed by the Principle of Walking on Two Legs, combining both Secwepemc and western knowledge in forming recommendations (W. Baker, 2023; SSN, 2017, p. 6). According to the SSN the examinations performed by the BC and Canadian Environmental reviews fall short regarding the "intangible" impacts to spirit, culture, and immeasurable impacts.

The SSN sees Pípsell's future as it is now, unmodified by the proposed mining operation (SSN, 2017). Pípsell represents a wealth of resources for the Secwepemc, both physically as well as culturally. Pípsell is used by the Secwépemc as a major food source, the local flora and fauna are invaluable to the Secwepemc's ability to provide food. Low impact hunting and harvesting practices continue to feed the

Secwépemc people to this day. The plants within Pípsell also have medicinal and cultural uses. The water from the lakes in Pípsell, such as Jacko Lake, are essential to the Secwépemc people that live there. The Secwépemc also have used and continue to use Pípsell for small scale, low impact extraction of copper ore and other minerals. Pípsell is a natural environment which is essential for the economy of the Stk'emlúpsemc te Secwépemc people and nations beyond Pípsell. Culturally Pípsell is central to the Stk'emlúpsemc te Secwépemc people. Secwépemc knowledge keepers shared oral histories which show this significance.

Pípsell is the site of the stories of The Trout Children Stseptékwll. Pípsell was shaped by the deeds of Secwépemc ancestors and travelling "transformers" (tellqelmúcw). The Tellqelmúcw named the land and "froze" (tult) dangerous beings into the rock that shaped Pípsell and changed energy into the plants, animals, and other matter. Other stseptékwll inform about how the continued care of Secwépemc ancestors further shaped and cemented the relationships between humans, animals, and plants resulting in Pípsell as it is today. Pípsell is a living testimony of stseptékwll, and the lessons learned from the care of the land embody Secwépmc laws. Stseptékwll inform real hunting, agricultural, and other human activities proven best practices. The relationships and spiritual connections the Secwépmc have to Pípsell continue to exist today and have to be put forward to future generations of Secwépmc. Pípsell is an exceptionally large living knowledge bank, a source of knowledge and educational information that teaches and guides the Secwépmc people and shows the importance of respecting the stseptékwll, stsq'ey', and preserving the Secwépmc way of life. The purpose of Pípsell for the Secwépmc people is for it to stay unharmed by people so that it may continue to feed and educate the Secwépmc and others.

5.2.1.4.1 Breaking down the SSN knowledge bases.

The SSN council panel was comprised of the elected chiefs and councilors of the Tk'emlups and Skeetchestn nations, as well as twenty-six individuals who were appointed as representatives by their respective families (SSN, 2013). The panel was created to generate a decision regarding the Ajax mine based on Secwepemc law, centralizing consensus through discussion between the families and sharing intergenerational knowledge and teachings about stewardship of the land. The process of this discussion

in based on the reciprocity of information exchange and giving voice to the collective knowledge which is held within Secwepemc families and communities.

The concept of "walking on two legs" was central to the decision-making process of the SSN Joint Council (SSN, 2017). This means combining the vast intergenerational collective knowledge held by the panel members as well as western historic, geological, and ecological accounts. On the forefront is The Trout Children Stseptékwll, Secwepemc oral histories that share knowledge about the creation of humanity and their relation to the land. Pípsell is the site where this story takes place and has an irreplaceable historical, cultural, and spiritual connection to the Stk'emlupsemc te Secwepemc people. Pípsell sustains their Indigenous laws about reciprocal accountability and social conduct.

During the review process, the panel received oral evidence from seventy-six witnesses. Seventeen of which were technical experts who appeared on behalf of KGHM. The SSN review panel also received another twenty-five technical experts which were retained by and from within the SSN. Additionally, thirty Secwepemc knowledge keepers and community member appeared as witnesses to share their stories and knowledge. The SSN provides multiple sources for their historical connections to the land. First and foremost, The Trout Children Stseptékwll serve as a base of this connection. This story was remembered and shared by the members of the review panel and witnesses that appeared in front of the panel, such as late Chief Charlie Draney, as well as community members including knowledge keepers Jeanette Jules, Ed Jensen, and Garry Gottfriedson (SSN, 2017, p. 26). Additionally, the SSN traces back the existence of the Trout Children stseptékwll through Western records of this story over the past century to prove the continued existence of their oral histories.

The oldest western record used is an 1891 report on the Shuswap (outdated name for the Secwepemc people) by G.M. Dawson (SSN, 2017, p. 10). The notes by Dawson, archived and openly accessible through the University of British Columbia library, describe his experiences seeing the Secwepemc people in 1890 while touring the country to collect geological and anthropological data on the Indigenous lands and people across Canada. Dawson reports of the rituals, such as offering a fragment of tobacco or clothing on a tree stump in Pípsell, and the trout children stseptékwll that mentions this exact tree stump that brought the young man to sky world (Dawson, 1891, pp. 34–35). The SSN panel

also refers to the accounts of ethnographer James Teit recorded in his book "The Shuswap" regarding the xqelmecw'etkw, or water mysteries, which live in the lakes and ponds of Secwepemc territory (Teit, 1900).

The oral histories that are shared by the SSN are also cross checked with studies performed by geologists and ecologists invited by the SSN. Dr. Kevin Morin reviewed the KGHM Application in terms of predicted water contamination as an expert geoscientist and hydrogeologist (SSN, 2017, p. 29). The SSN also referred to a journal article by Nancy J. Turner, an anthropologist currently associated with the University of Victoria, who discusses the concept of Cultural Keystone Places and the importance of protecting such places (SSN, 2017, p. 14). The frameworks proposed which define what makes a cultural keystone place and what merits protection are applied to the case of Pípsell and the relationship of Secwepemc people to this area (Cuerrier et al., 2015; SSN, 2017, p. 14). There is an immediate connection between the characteristics of Pípsell and its role in Secwepemc law and culture that make Pípsell one of these Cultural Keystone Places (SSN, 2013, 2017). This is used as proof of the immense value that Pípsell has to the culture of the Secwepemc and that it cannot be lost without severely damaging the Secwepemc way of life.

The SSN also refers to the memorial presented by Secwepemc Chiefs to Canadian Premier Sir Wilfrid Laurier in 1910 and the memorial to Minister of the Interior Hon. Frank Oliver in 1911. These are documents shared with the government that underscore Aboriginal land ownership and the land taken by the B.C. government without treaty or payment (Chiefs of the Shuswap, 1911; SSN, 2017; Teit et al., 1910). Both documents which are held within B.C. provincial archives and received by government at the time, are proof of the pre-existing and continued authority the Secwepemc hold over their territory, regardless of any claims made by the Crown.

5.2.1.5 The tensions

After discussing the different visions of the area, the different stakeholders can be placed into different groups who each carry different ideas of ways to use the land. The two parties with the most tension between the different versions are KGHM, which proposes to drastically change the area for the mining operation, and the SSN, who see the area to serve the community without any changes. The other parties,

the B.C. and Canadian governments and the City of Kamloops, take a different role within the development of the land as each are not main proponents of any other ideas. The governments, and especially the government of B.C., put in several demands on KGHM, as stated in various *Acts*. Within the development of the mining project, KGHM is to follow these processes of certification. This also means that the *Acts* shape a large part of what can and cannot be done in the lifetime of the mining project. This is also where the first tension arises. The regulations imposed on KGHM dictate which changes KGHM can propose and how KGHM can shape the Ajax mining project. Regulations in place put a cap on emissions, water use, electricity use, and use of space to protect the welfare of the citizens in surrounding areas and to make sure that KGHM follows environmental protection regulations. These tensions arise through the need of government to manage shared spaces, balancing profits from the mining corporation with the costs to the state in terms of environmental and public health damages.

The City of Kamloops takes a more minor role too. Just like the provincial government, the City Council does not propose another type of exploitation of the area. No zoning plans were presented which would oppose the possibility of operating the mine (MCK, 2011c). However, the creation of the mine would pose several costs to the citizens of Kamloops. The possibility of damage to water, soil, and air quality, as well as the projected noise pollution, gave rise to contestation of the original KGHM plans. The City of Kamloops offered an alternative execution of the project. The focus was put on institutionalizing a higher degree of input of local governance in the planning and operation of the mine with an increased amount of accountability structures. More stringent monitoring of environmental and public health led by independent parties was to increase the accountability of KGHM. The City of Kamloops also prompted to increase their position within the governmental reviews of the Ajax project. More measuring stations, setting up joint economic and environmental panels, and a higher degree of permission that was needed by the City Council was to ensure higher control and accountability toward the people of Kamloops.

The biggest tensions exist between the SSN, and other parties involved in envisioning the future of Pípsell and the project area. SSN criticized both the methodology of review by government and the viability of executing the mining projects as proposed by KGHM. The methodologies that are used by

the government to certify any project such as the Ajax mine are developed in line with methodologies as usually formulated by Western scientific knowledge. The biggest critique that the SSN express toward the Canadian and B.C. government is that essential information is lost by excluding alternative knowledge models. Knowledge that usually is classified as "intangible" impacts to spirit, culture, and other immeasurable impacts. The Environmental Assessment processes do not reflect an inclusive knowledge approach for governing on Indigenous traditional territories. The SSN review process also functions in quite a different way compared to the Environmental Assessment and certification processes used by both provincial and federal governments. The certification processes were based mostly on scientific studies. Studies were based in the fields of geology, ecology, biology, and physics to determine the viability of the project. This created considerable tensions between what was defined as risks to the project.

As stated before, the SSN studied extensively the spiritual impact the massive alteration of the land would have on the communities living there. A large part of knowledge that had been developed for generations would have been lost due to the destruction caused by the mine. According to the SSN, the massive alteration would disturb balances between the land and the sky and cause the sky to turn against the people. The project would seriously contradict the connection that is shaped through X7ensq't, which translates to the relationship between humans and the lands. Respect for the sky and Spetlamu'lax, or grandfather sky, is also essential in maintaining this relationship. The Trout Children stseptékwll explains how the grandson of Spetlamu'lax climbs up the prayer tree to meet with Spetlamu'lax, where he needs to gain the trust and respect of Spetlamu'lax and the sky world to gain access to the resources of sky world. This in turn results in the process where water that flows from the earth to the sky in the shape of mist also comes down as precipitation, giving life to the earth. This cycle is not free and only happens through maintaining a respectful relationship with the sky and the land. Failure in this relationship will lead to the sky turning against the humans that inhabit the land. This story is foundational for Secwepemc law.

The creation of the mine would seriously disturb the land through the pollution and dust and noise produced by the mine. This falls in line with the worries presented by the City Council of Kamloops,

but an entirely different rationale is presented behind the positions. The City Council bases this notion on environmental studies performed by an independent panel, which measures the air quality etc. The SSN judge the impact of the mine on how much it would impact and change the landscape as described in their oral histories. On top of that, the mining site would cover a large area of Pípsell in which this story originated and where the prayer tree is still standing. Land that was fenced in by KGHM during the certification process was the site in which offerings to the sky world were supposed to be presented. The ability of the local people to fulfil their obligations to their X7ent'q and Secwepemc law would become entirely impossible due to the creation of a mine. An important part of Secwepemc governance was threatened to be shut down by KGHM.

SSN was also concerned about the disturbance that the mine would cause to the lakes in Pípsell. The cause and scope of the impact on water quality and maintaining healthy water levels in Jacko Lake, the Thompson River, and other lakes that surround the area of the mine, differ greatly depending on the sources used. Studies presented by KGHM, the Independent Environmental committee appointed by the City of Kamloops, and knowledge provided by Secwepemc knowledge keepers provide various perspectives.

In the original KGHM proposal that was given in 2011, attention was paid to the impact the open pit mine and the alteration of the Project land would have on several bodies of water in the area (Pooler et al., 2011). The conclusions were based on baseline environmental studies and several exploration drillings. The fresh water supply in the semi-arid area of the project area is heavily reliant on the Peterson Creek drainage, which is restricted to Jacko and Edit Lake, which are already heavily used for irrigation purposes. After construction, several diversions, and a berm to separate Jacko Lake from the 500-meter-deep mine, the water in the area would be contained and separated from most mining activity.

The SSN heavily criticized the lack of research conducted to ensure water protection in the area (SSN, 2017). The biggest worry was the significant risk of Jacko Lake entirely draining into the massive open pit mine. Figures provided in the original project assessment from KGHM did not mention any reference to possible fractures that could exist in the bedrock, as it was assumed that the rock formations in the area were solid enough to prevent any water from seeping into the mining pit (Pooler et al., 2011).

Secwépemc knowledge keepers disputed this assessment based on oral histories they shared in the SSN panel review (SSN, 2017). The Secwépemc people have always been aware of the fluctuating water levels in the bodies of water. They explain that this is caused by movement of the water people (Secwepemcúlecw) that use deep aquifers to traverse the water world that connects all bodies of water in Pípsell. This knowledge shared by Dawson was confirmed by other community members. Rhona Bowe shared that studies she took in GIS confirm the flows of water in Pípsell as told by her ancestors. This prompted a demand from the SSN for KGHM to conduct further studies on the soundness of the bedrock separating Jacko Lake and the proposed pit. Additional geological information regarding bedrock fractures in the Jacko Lake areas provided by KGHM showed proof of fractures consistent with Secwepemc oral histories. Three major fractures and two small sub-fractures were found in the Jacko Lake area, one of which was directly connected to the open pit site. This in turn informed seepage calculations which show that over the lifetime of the mine, and long after, Jacko Lake would continue to drain into the pit area.

5.2.2 Step 2: Decision Closure

During the environmental assessment processes many parties were involved in the final decision making on the construction and operation of the Ajax Mine. The government of BC shared its final decision on December 13, 2017, (Heyman & Mungall, 2017). To generate its final decision it considered reports and recommendations provided by KGHM, assessment reports by the Environmental Assessment Office (EAO), the opposition shared by the City Council of Kamloops, and the final report of the Joint SSN Council. While the mine would have many economic benefits in the form of direct employment generation and large public revenues due to taxes, the BC government did not approve the Ajax mine project. The first base of opposition was the significant risk to public health the mine would pose for the citizens of Kamloops. In particular, the close proximity of the mine to residential neighbourhoods made it very hard and even impossible to mitigate dust and air pollution. On top of that, the large amount of exposed surface water to both the mining pit and the rock waste management facilities also poses a great risk to water quality. This would result in the contamination of groundwater in close proximity, polluting the water wells of the edge of Kamloops.

The BCEAO also elaborated on the significant cultural impacts that the construction of the mine would have on the SSN. The big role Pípsell plays in the governance and upholding the laws and responsibilities of the Secwepemc people would be completely barred to the Secwepemc people. The mine would hinder many economic activities, such as hunting and fishing, which are key to the Indigenous economies of the local communities. The BCEAO upheld the *prima facie* claim of the Tk'emlups and Skeetchestn to the project lands. The EAO saw the Crown's duty to consult fulfilled by the many accommodations and supports made for the SSN Joint Council's work and the continued communication between the government, KGHM, and Indigenous communities (W. Baker, 2023). The assertion of Aboriginal title supported the use of traditional knowledge in the final conclusion of the SSN. KGHM made several proposals to accommodate for the loss of Pípsell land due to the project, such as moving certain significant objects and sites to new areas outside the project area. This however was absolutely not accepted by the SSN since such important sites and natural monuments cannot be taken out of their original contexts. Due to the reasons noted above, the EAO could not issue an EA certificate for the project.

5.2.3 Step 3: lasting impact of rejecting the Ajax Mining Project

The review of the proposed Ajax Mine and the heavy involvement of the SSN in the consultation process generated prominent media coverage. Media followed the process closely as it was the largest example of Indigenous consultation at the time. The prominent role First-Nations played within the Environmental Assessment was seen as a big rise in awareness of the impact of resource projects on First-Nations. The traditional methods used to perform this panel review and its prominent role within the final Environmental Assessment marked a change in (Simmons, 2022) resource management in B.C. (R. Baker, 2018; CBC News, 2017; Zeidler, 2017b, 2017a). Mining Watchdog" Mining Canada" puts the SSN review forward as a 'model for future development projects' (Mining Watch Canada, 2017; Tammemagi, 2018). This view is shared internationally by Indigenous Groups and Indigenous rights activists which call for higher authority for Indigenous groups in resource management (Simmons, 2022). Legislation made after the SSN review do not show any changes, however (Simmons, 2022). The role of First Nations within the process of environmental assessment remains generally

unchanged (Environmental Assessment Act (E10.1), 2018), with a few notable exceptions. Existing legislation only refers to regulations relevant to treaty lands; however, almost the whole province of B.C. consists of unceded non-treaty territories (Simmons, 2022). The Environmental Assessment performed by the SSN, and it being adopted by the government was also done out of good faith (W. Baker, 2023). The legal and legitimate strength the SSN had also meant that if the government would have given the go ahead for the project, it would have made a strong case in court (W. Baker, 2023). For now, Indigenous people are left to go through lengthy and costly negotiations and court proceedings to assert any authority, and a more institutionalized role for Indigenous Environmental Assessments has yet to come.

6. DISCUSSION

The analysis of the Ajax mine has shown the multiple sides that participate in Canadian resource project. This project showed the intricate interaction between state, local government, local communities, mining corporation, and Indigenous communities that participate in the development and are impacted by the constructions of mines or other resource industries. The purpose of the analysis was to look at which types of knowledge and expertise are used by parties, specifically Indigenous expertise. The analysis shows a wide variety of knowledge use depending on which actors discourse surrounding the Environmental Assessment of the Ajax mine. This will be further delved into in the first part of the discussion. Then this chapter will explain why Indigenous expertise was or was not utilized by certain actors in order to answer the main research question of this paper. Lastly this chapter will discuss alternative factors that could influence why Indigenous Knowledge is or is not adopted.

6.1 What expertise was used by who?

When KGHM announced the opening of the Ajax mine in the 2000s a lot of questions and discussions were raised. The area in which the 500m deep mining pit producing over sixty thousand tonnes of material a day was situated right next to Kamloops and lay completely in the traditional territory of the Secwepemc people. The mine raised questions regarding land use, the impact of the resource industry on the environment and public health, and a clash between the concept of privately owned land on unceded Aboriginal land quickly followed. This gave rise to the SSN review panel, asserting Aboriginal authority over the land that they called Pípsell, which would have been irreversibly altered if the Ajax mine were to be opened. The Crown and the city council of Kamloops also became involved in the assessment process, either through legal triggers or the remarkably close proximity to the proposed project area.

6.1.1 KGHM's western scientific assessment

KGHM and the SSN became the parties that had diametrically opposed views on the Ajax mine. KGHM as the main share holder behind the mine proposed several project versions to mitigate concerns and government regulations regarding environmental safety to attempt to go ahead on the construction of

the mine. The SSN was in fierce opposition to the mine, stating that the mine would destroy the area of Pípsell which was a cultural keystone to the Secwepemc people. An area completely within Aboriginal territory which would be severely affected by a party whose ownership was never consented to by the Secwepemc. In order to justify their arguments KGHM and the SSN used dissimilar sources of expertise.

KGHM as a mining company heavily relied on data collected by other mining companies who operated mines in the Kamloops area, technical experts such as geologists and engineers, and ecological information provided by the government. Data published by other mining companies consists of geological assessments and soil experiments. This data shows the vast amounts of gold, copper, and other natural resources stored in the area. KGHM also presents an overview of how private ownership was transferred between different parties to legitimize their authority to open up a mine on the project site. Environmental risks, which were based on different Acts published by the Crown, were assessed based on different ecological, biological, geological, and other western scientific indicators. For example, geological surveys performed by KGHM were to prove the structural integrity of the rock around the mining pit to prevent a massive collapse. Other environmental assessments were made to track fish populations in the area by methods of counting and tracking the air pollution caused by the mine with monitoring stations containing different measurement tools to track CO2, dust, heavy metals, and other pollutants. Additionally Indigenous communities in the area were consulted. This was done to address Indigenous concerns by presenting them with information mentioned before proving the limited damages and mitigation methods. To mitigate the unavoidable adverse effects the mine would cause in the area KGHM used socio-economic arguments, such as increased tax revenue, boost to local economy, and job creation to convince communities to support the mine. It is especially important that the consultation with Indigenous actors was based on informing them, rather than actually asking the Indigenous communities to share their expertise on the land to assess the environmental risks and benefits of the Ajax project. KGHM stuck to their traditional expertise sources to assess risks and benefits of the Ajax mine, experts in western scientific disciplines and governmental regulations.

6.1.2 The value of Indigenous expertise and 'walking on two legs'

The SSN shows a much more pluralistic approach to analyzing the impacts the Ajax mine would have on the area. Indigenous expertise, in the shape of communal knowledge and oral histories regarding the Trout Children and the Water and Sky World, and western expertise and sources were utilized to conceptualize and contextualize the impacts of the Ajax mine. The Secwepemc laws, stored in their oral traditions and shared by several knowledge keepers in the different communities, show the significance Pípsell has to the local ecology and Secwepemc traditions and way of life. The story of the Trout Children describes Pípsell as the place of origin of the Secwepemc people. It teaches the Secwepemc about the importance of accountability and reciprocity between each other and the land. The health and beauty of the Pípsell ecology and biodiversity is a direct gauge on how well the Secwepemc fulfill their responsibilities defined in Secwepemc law. The story of the Trout Children is not only a story, it is law, it describes a way of life.

The existence of the oral histories was justified in two ways, the traditional Secwepemc way, and ways familiar to western tradition. The communal remembrance of a story, as proven by the multiple accounts of living Secwepemc knowledge keepers, proves the existence of this story. This transcends what a living group of people know as a story. In order for this story to remain alive it must have been passed through from generation upon generation. This is also why stories are *remembered* in a certain way and exists in multiple versions. Remembering the stories orally is vital for the continued existence of Secwepemc law. The existence of multiple versions is a testimony to the fact that separate families remember important stories over extended periods of time. It is natural for the exact stories themselves change over time. However, the consistency of the content across these different versions of the stories proves the significance it has to the Secwepemc people. Proving this continuation to satisfy western notions of what makes something 'important' was also included in the SSN panel review. Simply put, it is usual as Mazzocchi (2006) states for western scientific discipline to archive information through written documentations. This is why the SSN also included notes made by the geologists Dawson that describe his accounts of experiencing these stories being told to him by Secwépmc people over a century ago.

The SSN also tackles proving their asserted authority in two diverse ways, through the existence of their Indigenous laws, cultural markers, and continued practice of their way of life as well as archived documents presented to the Crown over a century ago. These documents contain statements of Secwepemc Chiefs that reminded the Crown of their continued Aboriginal authority over their land and the fact that land was not purchased by or acquired by treaty by the Crown. Pípsell and the surrounding land is Secwepemc territory, the Crown and all those who represent the Crown or act according to the Crown are guests, not owners. The SSN upholds this notion to this day, justifying that their consent must be given before anything is done by KGHM to the proposed area.

The SSN finally conceptualizes the environmental risks connected to the opening of the Ajax mine again in two ways, utilizing their own Indigenous expertise and western expertise. What accounts of what the area looks like when it is a healthy environment and ecology is described in many Secwépmc oral histories, teachings, and cultural practices. These sources mention many distinct types of fauna and flora that are part of Secwepemc diet, medicine, and ceremonial rituals. This includes description of the rainbow trout in the lakes and ponds in Secwepemc territory that are central to the Trout Children Stories. The use of tobacco or cloth made from fibers from different plants in and around Pípsell as offerings on a tree stump that is also central to the Trout Children story is another account of the meticulous description and extensive knowledge of Pípsell. Again, the existence of this knowledge passed on through generations is synonymous to the importance of the flora and fauna that make up Pípsell. Caretakership of this environment is essential for the Secwepemc. Naturally, a mine of approximately five square kilometers and five hundred meters deep is significantly going to impact the area. The environmental risk is equated to the significant alteration and even destruction of parts of Pípsell. Next to the definition of the environmental risks according to Indigenous experts the SSN employed geologists, hydrogeologists, and ethno-biologists to record the environment of Pípsell and assess the risks and scale of alteration the mine would have on the area. Indigenous expertise was especially valuable in assessing the structural integrity of the mining pit and surrounding mineral deposits. Reports shared by a KGHM geologist used a limited scope of area and depth which were considered in the assessment of this integrity. Informed by the Secwepemc stories of the Water World

and the water people that used underground passageways to travel between the different lakes and ponds of Pípsell the SSN put the KGHM integrity assessment into question and pursued their own hydrogeological assessment performed by Dr. Morin. Dr. Morin's findings confirmed the existence of gaps and tunnels that connect the waterways in Pípsell through western geological surveys. Without the consideration of the Indigenous expertise offered by Secwepemc knowledge keepers there would have been a significant risk of the lakes and ponds of Pípsell draining into the mining pit, significantly damaging the ecology and fish habitats in the area, and even impacting the availability of water for all people who live in the area, including in Kamloops.

6.2 Why was the SSN heard by the Crown?

In the final decision shared by the B.C. government, proposals and concerns raised by KGHM and the SSN were included. In the end, the B.C. government decided not to give KGHM the necessary permits to construct and operate the Ajax mine. There were two main reasons given: the significant adverse environmental and health impacts and the loss of the significant Secwepemc cultural keystone place known as Pípsell. This is a noticeable inclusion of governments, such as the SSN, outside of the Crown. The significant lead Indigenous knowledge takes in the case made by the SSN shows how the B.C. government since the Ajax mine environmental assessment includes Indigenous expertise. This moves away from the old "inform and mitigate" approach that is more common, and which was seen in statements shared by KGHM.

The literature discussed previously answers the question of why Indigenous expertise in the form of the SSN panel review was used in this environmental assessment of the Ajax mine between 2010 and 2018. Expertise is predominantly used in states of dilemmas, also known as wicked problems, as introduced by Weber (2008). The Ajax mine, which due to scale and location raised many questions and concerns, requires more expertise in order to find a solution to the problems posed by the project. Parties involved will use expertise as an instrument to legitimize their position within the public sphere. In line with Boswell's (2009) theory, KGHM, the government, Kamloops, and the Indigenous communities represented by the SSN all sought out different forms of expertise to conceptualize, proof, and justify their perceived benefits and risks.

The inherent social nature of practicing and using science and expertise (Grundmann 2017) can cause significant variation in what expertise is represented in different parties. KGHM, the government, and the city of Kamloops, as institutions shaped by western governmental and business institutions, naturally pick western scientific traditions to analyze the Ajax mine. Engineers, geologists, public health experts, and many other experts of various western scientific disciplines were employed to conceptualize and contextualize what would happen if the Ajax mine were to be constructed. Preferred methods of creating this analysis were scientific methodologies that are connected to each of their respective disciplines. Geologists performed geological surveys to determine the structural integrity of rocks while public health experts collected data from air measuring stations nearby mining industries to provide expectations of the pollution caused by the mine.

As an Indigenous governing body, the SSN used methods in line with their concept of 'walking on two legs' using knowledge that could be found in the social sphere of the Secwepemc people: Secwepemc expertise that got passed down over the generations and western scientific expertise introduced by European settlers but now accessed by modern Secwepemc people. The SSN used stories, oral histories, teachings, and Secwepemc cultural traditions in order to perform the first extensive analysis of the impact of the Ajax mine. In addition to analyzing this case through the Indigenous perspective, the western scientific disciplines were represented through Secwepemc and other experts in disciplines such as engineering, hydrogeology, and ethno-biology to assess the impacts of the Ajax mine. In line with Nadasdy's (1999) expectations that the inclusion of Indigenous expertise to studying environmental cases creates opportunities to uncover more important data also can be seen in the case of the SSN joint council report. The Secwepemc stories that spoke about underwater pathways spurred more research to the structural integrity of the mining pit. Where KGHM viewed the integrity to be sufficient, hydrogeological studies performed by the SSN confirmed the existence of these underwater pathways, uncovering the significant risk of massive amounts of water accidentally draining into the mining pit over time.

Why the Indigenous expertise offered was used by the Crown lies in direct line with expectations proposed by Howlett (2016) and Krick (2019) where governance is inherently linked with the perceived

effectiveness and the regard of 'good governance' through the use of expertise. A good government makes use of expertise. In a traditional western sense this would mean that studies performed by experts of western scientific disciplines would be sufficient. However, in Canada and in B.C. in particular the concept of 'good governance' is becoming increasingly intertwined with appropriate respect for Aboriginal People and respect for Aboriginal law. The Crown formally adopted this when UNDRIP was adopted by the Canadian government. The inclusion of Indigenous expertise and Indigenous ways of governing have therefore become much more central to the mission of the Canadian federal and provincial governments. The Ajax mine would carry such a big impact to the Indigenous people, the Secwepemc people, in the area that the only way for the provincial and federal government to approach this dilemma from a 'good' angle was to heavily encourage and adopt Indigenous knowledge in their decision-making process.

Halligan (1995) also mentions that in order to include more types of expertise government needs to go through certain institutional changes. As stated before, the Crown is heavily engrained in western methods of governance. This would in turn lead to the domination of western expertise and scientific knowledge over other types of knowledge. This has led and still leads to alternative forms of expertise, such as Indigenous expertise, to be regularly excluded from the decision-making process. Significant developments in Canadian federal and provincial law have caused a more evolved version of Aboriginal rights and when such rights can be asserted. Treaties and other arrangement made by settlers with the Indigenous people in times of the first contact were deemed as not sufficient for the Crown to subjugate the hundreds of Indigenous Nations in the country. More space for the assertion of Indigenous rights brings forward the opportunity to create more space for Indigenous expertise. Indigenous people are increasingly legally empowered to govern in line with their own traditions, customs, and expertise.

6.3 Limitations of this study

Before moving on to the final conclusions in this paper it is important to acknowledge the weaknesses and overlooked variables of this analysis. The EPOR framework that was used in this thesis proved to be very useful for structuring the process tracing review. However, it did not provide many variables within its methodology to be measured. This meant other variables that lie outside the framework, such

as the categorical variable of the presence of Indigenous expertise, needed to be included in order to be applied to the case. Why was another methodology not applied? Many STS scholars provide really poor frameworks to structurally review cases. The social and fluid nature STS takes in regard to viewing science does make it exceptionally hard to create thorough and reliable methodology frameworks. The EPOR framework derived from the STS branch of SCOT analysis was the most extensive framework available in terms of streamlining the data collection process and ordering the data to be analyzed in a coherent and chronologically consistent manner. The significant alteration of the EPOR analysis, which is usually used to trace the process on how a technology became a technology (conceming with questions such as why do bikes have so many spokes instead of a solid wheel), needed to be made to apply it to policy and to specifically measure Indigenous expertise. This raises the question of whether other frameworks were overlooked which would have better been suited to deal with the topics involved with the research question at hand. Theories based off game theory, socio-linguistic theories, and cultural philosophy could definitely provide strong frameworks which could provide interesting and valuable insights. Nevertheless, the EPOR framework helped to order a lot of data to fit within a theoretical framework based on a multi-disciplinary set of literature as well as a case that was very complex, with a lot of cultural factors overlapping and intersectionality within the analyzed groups.

Variables that could seriously influence the outcome of why Indigenous Expertise was used in the case of the Ajax mine are also present. While it is impossible to notice and discuss all the other contexts, possible omitted and confounding variables need to be discussed. A strong possibility of a variable that has not been analyzed but could very well influence the outcome is the question of case locale. The Ajax mine was proposed within in Secwepemc traditional territory, but it was also extremely close to the edge neighborhood of Kamloops. This significantly raised the public health risks involved for people in the surrounding area. The public health of the citizens of Kamloops would most significantly be impacted by the mine and would be a significant risk to assess by the government. If the mining site and Pípsell would have been in a very remote location where only a handful of Indigenous people lived, a much higher risk of Indigenous people being ignored might have arisen [1].

[1] See **see Alaskan Haida and Tlingit Nation vs BC metal mines,**

7. CONCLUSION

Discussing the question of why Indigenous expertise in the form of the SSN panel review was used in this environmental assessment of the Ajax mine between 2010 and 2018 has provided a great opportunity to discuss the mechanics behind alternative forms of expertise besides the traditional western scientific approach. The case has provided a data rich environment through which many accounts, reports both new and old, videos, and publications were freely available to research. The interview with Wendy Baker has provided enormous help to guarantee the accuracy of this research and to provide more background information on what was happening during the 18-month SSN panel review. Expertise as a concept is very layered. It is subject to so many contextual factors that the question of 'what is being said' becomes useless without discussing 'when is someone listened to or not.' Raising this question is crucial to modern day governance. Higher inclusivity in governance and the continued attempts to break down deeply ingrained discriminatory structures have become essential tasks for researchers to tackle.

As a greater number of people and cultural groups raise assert their rights as humans with different customs, laws, and ideas living together under a single government, pluralism in the decision-making process of governance becomes central. Canada is a unique state which puts into focus the tension between Crown legitimacy and upholding basic human and Indigenous rights which are currently causing many dilemmas between Indigenous nations and the Canadian state. Walking on two legs while making policy has proven in the Ajax case to be highly effective and can help to overcome the significant barriers that historically have been put up against Indigenous people to be able to govern as is within their right. Discussing policy, and specifically resource management, should be done in a socially sensitive and ethical way. This is also where STS steps in as a current and essential piece of academics to be included in policy analysis and analysis regarding expertise. The reason why expertise is or isn't used, discussed through an STS lens, can provide great opportunities to discover and address bigger underlying social structures that heavily influence governance.

STS and especially working with Indigenous expertise has some significant downsides that need to be addressed too. STS as a field is chaotic. This is inherently part of the nature of STS since it attempts to understand human behavior in science, which is chaotic and unpredictable in and of itself. STS mixes and matches many academic disciplines to shape theories, which makes it as a field very sensitive for biases, cherry picking, and messy inaccurate methodologies. This was also visible in this thesis. The EPOR methodology utilized while providing some structure needed some major changes from its original shape in order to be applicable to the research question and case discussed. By disciplining the process tracing performed and simplifying the review of expertise into the same chunks, what does the expert say, who says it, what type of expertise is it, is it used, why is it or isn't it used, this research is able to provide an in depth and accurate analysis of the Ajax mine review.

STS theories discussing Indigenous expertise and technologies have another major pitfall as well. In trying to deconstruct othering and mystifying narratives surrounding non-western knowledge STS keeps upholding these structures. Indigenous knowledge as proposed by STS is almost described as something magical. It pushes the silent wise Indian narrative as if they know only what we don't know, which causes in turn the assumption that they don't know anything we know. Indigenous people are geologists, engineers, public health professionals and command western scientific tradition. Indigenous knowledge is not something mystic, it is a different manner of describing and trying to understand the world around us. Indigenous expertise is valuable in the sense that it is highly specialized and has stood the test of thousands of years. The story of the Sky world is not telling you that there is a mythical creature living in the sky; it is a story that teaches you that you should treat the sky as your own family, taking care of it and with respect so that it can return the favour. Indigenous expertise is too valuable and has been too threatened by othering and mystifying so that STS scholars may fall in the same patterns again.

Indigenous expertise should also not be regarded as a single thing. Just as there are multiple types of sciences, there are thousands of types of Indigenous expertise, varying from focus to content, changing from Indigenous family, nation, or groups. The Indigenous expertise described in this thesis thus should invite people to explore many other cases in which Indigenous people challenge the status quo. The

frameworks used in this thesis could provide a general guideline in approaching the intricate and diverse matter of Indigenous expertise. It must be noted that future research must consider the diverse and intricate way Indigenous expertise works based on different cultures. Conclusions found in this thesis should be regarded critically, as the application of similar frameworks to other cases could result in drastically different outcomes. There are internationally many clashes happening between Indigenous groups, resource companies, and governments where Indigenous expertise has no voice. This research puts forward the need to keep developing the understanding of the barriers Indigenous people face and the value of breaking these barriers down so that we together can walk the whirlwind that is governance and society on two legs instead of one.

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Appendix 1 Interview Questions

What was your involvement with the SSN Review?

Why did you get involved?

How would you describe the position of KGHM?

How would you describe the position of the BC government?

How would you describe the position of the SSN?

What method did the SSN use in their EA?

How did it differ from the usual method of EA?

How did SSN with bigger societal changes?

Wendy: Western techniques of counting plants and analytics regarding those plants, and how erosion affects plants. But identifying what are valuable for medical reasons or cultural reasons are often stored in Indigenous knowledge. Combining both the type of knowledge provides a more holistic description of a case.

Appendix 2 Interview transcription with Wendy Baker on May 2nd, 2023

H: Yes, it's started up. So. UM, yeah. First of all, because of the university reasons, I have to ask, if you do consent to this interview, and if you also consent to me using this for my research.

W: Yes.

H: Thank you. With that out of the way. Yeah. Also, for record could introduce yourself and state what your current position is.

W: My name is Wendy Baker and I'm a judge of the Supreme Court of British Columbia, formerly a lawyer.

0:0:44.770 --> 0:0:47.160
Teunis, H.J.H. (Hein)
Cool. Thank you so.

0:0:48.600 --> 0:0:50.490
Teunis, H.J.H. (Hein)
Yeah, let's jump right in.

0:0:51.710 --> 0:0:55.200
Teunis, H.J.H. (Hein)
Yes, as you know, this interview is gonna be about the SN case.

0:0:57.630 --> 0:1:3.620
Teunis, H.J.H. (Hein)
I'm mainly gonna ask questions regarding the position of the chemicals and.

0:1:4.340 --> 0:1:7.210

Teunis, H.J.H. (Hein)

So how do you say that?

0:1:7.780 --> 0:1:8.700

Baker, Wendy

Sketches in.

0:1:9.480 --> 0:1:11.890

Teunis, H.J.H. (Hein)

He just said thank you.

0:1:12.0 --> 0:1:21.540

Teunis, H.J.H. (Hein)

Patient and and especially from like a a legal perspective. So just to get it out of the way, what was your?

0:1:22.60 --> 0:1:25.500

Teunis, H.J.H. (Hein)

Uh involvement with the others and review.

0:1:26.210 --> 0:1:26.820

Teunis, H.J.H. (Hein)

At the time.

0:1:26.710 --> 0:1:31.200

Baker, Wendy

I was. I was the lawyer for the SN, which was a joint.

0:1:32.40 --> 0:1:34.60

Baker, Wendy

Community group of those two.

0:1:34.800 --> 0:1:43.330

Baker, Wendy

Umm nations that you've just described the sjin and the Tacoma loops, so they joined together in a Council and I was their lawyer for that Council.

0:1:44.350 --> 0:1:50.460

Baker, Wendy

In doing a an environmental review of a mind that was proposed for the Kamloops area.

0:1:51.510 --> 0:1:57.510

Teunis, H.J.H. (Hein)

All right. Thanks. And why did you get involved in this particular case?

0:1:59.360 --> 0:2:1.480

Baker, Wendy

It's retained by them to do it.

0:2:2.140 --> 0:2:3.0

Teunis, H.J.H. (Hein)

OK, cool.

0:2:4.840 --> 0:2:5.890

Teunis, H.J.H. (Hein)

And like.

0:2:6.650 --> 0:2:7.960

Teunis, H.J.H. (Hein)

Maybe in a better way?

0:2:9.120 --> 0:2:12.990

Teunis, H.J.H. (Hein)

But we're like personal interests that like.

0:2:13.840 --> 0:2:15.80

Baker, Wendy

Have the like I.

0:2:14.380 --> 0:2:15.350

Teunis, H.J.H. (Hein)

We're sparks.

0:2:17.410 --> 0:2:18.390

Baker, Wendy

Well.

0:2:19.530 --> 0:2:29.920

Baker, Wendy

As a lawyer, it's you kind of projects are offered to you and you take them if you like them. I was interested in this one because I had done public interest.

0:2:31.240 --> 0:2:39.170

Baker, Wendy

Hearings before and have an interest in Aboriginal law, so I it's interested to do it, but I was mostly did it because.

0:2:39.940 --> 0:2:41.190

Baker, Wendy

I was asked to do it.

0:2:41.670 --> 0:2:42.690

Teunis, H.J.H. (Hein)

OK, fair.

0:2:43.930 --> 0:2:48.880

Teunis, H.J.H. (Hein)

OK. So yeah, with the kind of the background things out of the way?

0:2:50.240 --> 0:3:7.130

Teunis, H.J.H. (Hein)

I got you would like to go for like the positions of the different parties. So obviously you represents the SN. So that will be the biggest portion, but also ask a little bit about the KGHM. So the Ajax Mining company and the PC government.

0:3:9.180 --> 0:3:26.830

Teunis, H.J.H. (Hein)

So yeah, let's first go with the KGHM. How would you describe the position of the KGHM in opening? Not the Ajax mine? Like one benefits that they propose. Why should the Community go ahead with the mine? Those types of things?

0:3:27.830 --> 0:3:28.420

Baker, Wendy

So there.

0:3:29.370 --> 0:3:40.40

Baker, Wendy

Their proposal was really an economic one that they would provide economic benefits to the Community, primarily for jobs, job creation and.

0:3:41.120 --> 0:3:49.970

Baker, Wendy

I I can't remember if they were there was probably some other community benefits that they were proposing, but primarily it was job creation training, that kind of thing.

0:3:50.810 --> 0:3:55.440

Teunis, H.J.H. (Hein)

Yeah, so another classic. This is why I should open up a mine. It brings in money.

0:3:55.980 --> 0:3:56.180

Baker, Wendy

Yeah.

0:3:56.760 --> 0:4:5.990

Teunis, H.J.H. (Hein)

I think alright and little busy government have like an active position within SN review or the like.

0:4:7.350 --> 0:4:12.870

Teunis, H.J.H. (Hein)

Previously said goals. What it should have been achieved with the environmental assessments or.

0:4:13.980 --> 0:4:20.350

Teunis, H.J.H. (Hein)

The data from input during the process would they would like to see happen during the the BA.

0:4:21.410 --> 0:4:23.330

Baker, Wendy

The environmental assessment.

0:4:24.110 --> 0:4:26.630

Baker, Wendy

Project was created by the SSN.

0:4:27.400 --> 0:4:35.830

Baker, Wendy

And the provincial government was invited to participate, as was the federal government, as was the mining company.

0:4:36.670 --> 0:4:47.440

Baker, Wendy

And so they all had specific standing in the review and the SN, of course has an ongoing relationship with the province.

0:4:48.670 --> 0:4:49.260

Baker, Wendy

And.

0:4:49.340 --> 0:4:51.520

Baker, Wendy

And the province.

0:4:52.540 --> 0:4:57.810

Baker, Wendy

I represents the crown provincially and the federal government represents the crown.

0:4:58.700 --> 0:5:1.910

Baker, Wendy

Nationally, and the crown has.

0:5:2.10 --> 0:5:33.290

Baker, Wendy

And a specific relationship with indigenous peoples in Canada and they are required to consult with indigenous nations when the indigenous rights or title of that group is potentially gonna be infringed by a project, so they the province was consulted with, and in fact there were many agreements entered into between the SN and the province for funding of the review.

0:5:33.620 --> 0:5:42.750

Baker, Wendy

And for management of the resources and other things related. So they were a very important player in that whole process.

0:5:43.980 --> 0:5:50.90

Teunis, H.J.H. (Hein)

So yeah, it was mainly like an obligation, but also like, yeah, fulfilments of.

0:5:50.830 --> 0:5:54.120

Teunis, H.J.H. (Hein)

Mutual agreements during it environmental assessments.

0:5:54.880 --> 0:5:55.880

Teunis, H.J.H. (Hein)

If I understand.

0:5:56.360 --> 0:6:27.50

Baker, Wendy

Yes, like the province and the federal government have a role in permitting any mining operation. And so the the mining company has to obtain a permit from those government bodies to do different parts of the project. So the federal government has a role in certain resources, for example waterways, navigable waters and fisheries are under the federal government's control and land based things, so.

0:6:28.210 --> 0:6:36.750

Baker, Wendy

Interference with land, animals, birds, etcetera, that all falls under the provinces jurisdiction. So yeah, they.

0:6:37.760 --> 0:6:45.460

Baker, Wendy

The company needs to get permits from those government bodies to do the mine in different parts of the mind will require different permits.

0:6:46.840 --> 0:6:51.910

Baker, Wendy

Umm, so it they are all involved and they SN created this project.

0:6:52.550 --> 0:6:57.0

Baker, Wendy

Demanding that people come and participate. It didn't have a.

0:6:57.720 --> 0:7:4.990

Baker, Wendy

Formal obligation to create this process. It rather just created the process as an assertion of its own.

0:7:6.20 --> 0:7:12.830

Baker, Wendy

Jurisdiction over the land and asked the governments to come and participate really as a.

0:7:17.470 --> 0:7:30.490

Baker, Wendy

Yeah, just as asking the governments to respect their jurisdiction over the land and participate in the hearing as a, as a sign of good faith, really, and as an expression of consultation with the First Nation.

0:7:32.30 --> 0:7:42.630

Teunis, H.J.H. (Hein)

Alright, so the interesting thing about this case was of course that the Ajax mine was actually situations on private land.

0:7:43.540 --> 0:7:54.850

Teunis, H.J.H. (Hein)

So yeah, how did the SN kind of cover the Ajax mine in their own like legitimates land ownership assertion?

0:7:55.540 --> 0:7:56.100

Baker, Wendy

Well, the.

0:7:56.300 --> 0:7:59.410

Baker, Wendy

Umm. In British Columbia, the.

0:8:0.170 --> 0:8:21.120

Baker, Wendy

There are very few treaties with the First Nations and the area where this mine is located was to be located as not a treaty area, so the nations that have lived there since before colonization have never ceded their title to the land. And so while this land was in the private land title system.

0:8:21.820 --> 0:8:25.670

Baker, Wendy

The nation doesn't accept that as a legitimate.

0:8:26.430 --> 0:8:28.420

Baker, Wendy

I'm alienation of their title.

0:8:29.210 --> 0:8:35.970

Baker, Wendy

And so they had pre-existing relationship with this particular site. It had a lot of.

0:8:37.400 --> 0:8:39.750

Baker, Wendy

Significance for them for their.

0:8:41.80 --> 0:8:46.830

Baker, Wendy

It it was a sight of an important story that was a foundational story in that community.

0:8:47.470 --> 0:9:7.860

Baker, Wendy

And also was a foundational story in creating, like certain laws that they say govern how the land is to be used. So that site was very, very important to them. And even though it was in private hands, they've never acknowledged that as a legitimate alienation of their title. So they really just.

0:9:10.390 --> 0:9:16.10

Baker, Wendy

Just said that it was theirs and they had the ability to control what happened on it.

0:9:16.720 --> 0:9:22.280

Baker, Wendy

Having never given up their title and then proceeded on that basis and.

0:9:23.270 --> 0:9:24.280

Baker, Wendy

Interestingly.

0:9:24.940 --> 0:9:28.140

Baker, Wendy

Everybody went along with that and allowed them to.

0:9:28.220 --> 0:9:32.920

Baker, Wendy

Yeah. Well, like, I don't think they felt they could stop the nation from doing this.

0:9:34.270 --> 0:9:40.560

Baker, Wendy

And there were certain agreements between the landowner and the nation that they could use the lake, which was.

0:9:41.430 --> 0:9:47.150

Baker, Wendy

Part of the site for spiritual purposes in the past, and so they had.

0:9:48.490 --> 0:9:55.580

Baker, Wendy

History of coming on to the land and using it for different things, and there were a lot of historical.

0:9:56.480 --> 0:9:59.690

Baker, Wendy

Markers on the land. So there were things that.

0:9:59.750 --> 0:10:29.50

Baker, Wendy

And they could see rock formations that have been created by people thousands of years ago that they used as blinds to hunt animals and different things like that. So they those markers on the land established like their use of that land before colonization. So the companies and the people who own this land hadn't disturbed those things and did kind of have a respectful relationship with the nation about the use of the land.

0:10:30.70 --> 0:10:34.270

Baker, Wendy

It hadn't been turned into, you know, housing or anything like that. It was still there.

0:10:35.60 --> 0:10:36.670

Baker, Wendy

Open open area.

0:10:37.960 --> 0:10:40.130

Baker, Wendy

So. So that's how that came about.

0:10:41.110 --> 0:10:42.440

Teunis, H.J.H. (Hein)

Alright, thanks.

0:10:44.130 --> 0:10:47.420

Teunis, H.J.H. (Hein)

So kind of going back to those hunting markers.

0:10:49.330 --> 0:10:57.760

Teunis, H.J.H. (Hein)

Like, how did they verify that they were there, where they're like a government appointed archaeologists or historians there? Or was it?

0:10:58.440 --> 0:11:1.960

Teunis, H.J.H. (Hein)

Uh, yeah, kind of shown by the community more so.

0:11:3.680 --> 0:11:9.290

Baker, Wendy

I think the community where the leaders in that describing what they were and.

0:11:10.690 --> 0:11:20.110

Baker, Wendy

Explaining what they were and I I can't. I can't remember if we had archaeologists as well. It's possible that we did. I think we did actually have some archaeologists that.

0:11:20.970 --> 0:11:25.160

Baker, Wendy

Also, you know confirmed what the nation was saying about those markers.

0:11:26.120 --> 0:11:38.390

Baker, Wendy

And they were recognized by everybody. And one of the proposals of the of the company was that they would take those markers and disassemble them and then reassemble them in a museum somewhere so that people could see what they were.

0:11:39.760 --> 0:11:42.720

Baker, Wendy

But that wasn't satisfactory to the nation.

0:11:49.70 --> 0:11:49.260

Baker, Wendy

So.

0:11:44.280 --> 0:11:49.460

Teunis, H.J.H. (Hein)

Yeah, indigenous people don't get happy by just shuffling stuff in a museum, right, Sarah?

0:11:51.270 --> 0:11:53.60

Teunis, H.J.H. (Hein)

So anyways.

0:11:54.660 --> 0:12:1.980

Teunis, H.J.H. (Hein)

Yeah, that kind of goes into a what method is being used to? Yeah.

0:12:2.840 --> 0:12:21.390

Teunis, H.J.H. (Hein)

Pro when I proof their legislation, so if I understand correctly as and uses stories mainly as a form of legislation and like SN law, how did you interpret that as a lawyer at the time?

0:12:22.530 --> 0:12:27.980

Baker, Wendy

Yeah, they I don't think the word legislation is really appropriate it where they were laws.

0:12:28.680 --> 0:12:36.50

Baker, Wendy

I'm legislation suggests they were written down in a statute sort of format, and that wasn't the case, so they.

0:12:36.130 --> 0:13:4.430

Baker, Wendy

And they do locate their laws in stories that are tied to markers on the land. So this site was a also the site of a creation story for them. And it it was a story that that nation people could explain in modern language. So they could explain how the the story was a metaphor in a way for a kind of.

0:13:5.0 --> 0:13:7.300

Baker, Wendy

And learning or a kind of law?

0:13:8.180 --> 0:13:17.410

Baker, Wendy

One of the as an example, one of the stories that was used was and I don't remember all the details of it, but it was a story that involved a porcupine.

0:13:18.140 --> 0:13:28.620

Baker, Wendy

And I was a porcupine that would go out into the into the woods, and it didn't have enough knowledge to complete its journey to whatever it had to do. And it was able to get knowledge from another animal.

0:13:29.300 --> 0:13:32.630

Baker, Wendy

And together they were able to succeed and they they.

0:13:33.300 --> 0:13:41.30

Baker, Wendy

Called this walking on two legs, using the two types of information together to come to the.

0:13:41.990 --> 0:14:13.200

Baker, Wendy

Ultimate proper goal and that was a metaphor or a way of explaining how some of the knowledge in this process was interpreted. So the SN described this walking on two legs as one leg being Western knowledge, scientific knowledge and things like that, and the other being the traditional knowledge of the people and that they would come together and they both had a value and you didn't kind of prefer one over the other, but they you learned from both of them.

0:14:13.280 --> 0:14:17.130

Baker, Wendy

And that would create the best outcome for the people and for the land.

0:14:17.850 --> 0:14:18.480

Baker, Wendy

So.

0:14:19.710 --> 0:14:29.820

Baker, Wendy

It was a kind of a metaphoric way of speaking, but they did. They the people, not me as a lawyer, but the people were able to sort of translate.

0:14:30.540 --> 0:14:38.860

Baker, Wendy

Their stories into concrete examples that could be employed in the process or in governance.

0:14:39.590 --> 0:14:40.970

Baker, Wendy

And and.

0:14:41.700 --> 0:15:3.450

Baker, Wendy

If you were able to understand where that began as a metaphor, metaphorical way of thinking, once it

had been sort of translated into a way that I could understand, then it was very easy to take those thoughts forward and think of them as a way of describing the law. It's a really inner origin story for the law.

0:15:4.230 --> 0:15:11.380

Baker, Wendy

In in in some ways it's not different than many of the Western stories that begin. You know we have.

0:15:12.320 --> 0:15:26.870

Baker, Wendy

Lot of Western laws begin in Bible stories, and if you think of how those Bible stories are just a story that then gets turned into you know you don't kill your brother or you don't steal from somebody.

0:15:28.30 --> 0:15:32.70

Baker, Wendy

Or you don't take knowledge that you're not entitled to have cause bad things will happen.

0:15:32.930 --> 0:15:44.440

Baker, Wendy

Those are all just metaphorical stories that, over time have become translated into the way we understand the world around us, and the relationships between people and the world that we live in. So it's really just the same thing.

0:15:46.140 --> 0:15:52.770

Teunis, H.J.H. (Hein)

Yeah. So a little bit on the translation part, that actually became a very big part of my thesis.

0:15:54.680 --> 0:15:57.510

Teunis, H.J.H. (Hein)

Did you ever hear from community members because they?

0:15:59.360 --> 0:16:13.60

Teunis, H.J.H. (Hein)

Yeah, they speak their native language that they tell the stories in native language and then the language or in English and you ever hear from community members? Ohh, I'm losing some things while I'm translating this knowledge.

0:16:13.750 --> 0:16:39.50

Baker, Wendy

Yeah, definitely. We heard people. Some people spoke in their native language. Some people spoke only in English. Whenever people spoke in their native language, it would be translated into English. And yeah, you're always struggle when you go to translate between radically different cultures or languages, ways of expression, for sure. You lose something. And people did talk about that, but.

0:16:40.210 --> 0:16:43.930

Baker, Wendy

For the main documents at the end of the review, we did have them translated.

0:16:44.720 --> 0:16:46.420

Baker, Wendy

They were in both languages.

0:16:48.120 --> 0:17:7.430

Baker, Wendy

I mean, I can't say if the translations were good or bad because I only speak one of the languages, but I think people were satisfied with the translation. And yeah, there's always a bit of a struggle when you have to communicate ideas that where you may not have the same words with the same concepts in another culture or another language. But I think it was OK. It was work. We worked it out.

0:17:8.300 --> 0:17:16.890

Teunis, H.J.H. (Hein)

And yeah, this thing goes with metaphors or sayings. Of course. Different languages have different metaphors, sayings that don't exist in other languages, but.

0:17:18.620 --> 0:17:24.720

Teunis, H.J.H. (Hein)

I think you already kind of confirmed this, but it didn't hinder the metaphors that.

0:17:25.440 --> 0:17:35.430

Teunis, H.J.H. (Hein)

Came out of the stories translated and then come across to you as an English speaker. Like you could get the message and record that in your own way.

0:17:35.970 --> 0:17:36.760

Baker, Wendy

Yeah, definitely.

0:17:37.780 --> 0:17:38.350

Teunis, H.J.H. (Hein)

OK.

0:17:40.950 --> 0:17:55.140

Teunis, H.J.H. (Hein)

So the panel tears things like the lost little bit of the interview. I would like to kind of hear your opinion on. Like, why did you think that governments and the company?

0:17:55.870 --> 0:18:2.410

Teunis, H.J.H. (Hein)

Uh accepted the invitation from the SN and also went ahead with it.

0:18:3.190 --> 0:18:4.210

Teunis, H.J.H. (Hein)

And like accepted it.

0:18:5.310 --> 0:18:5.820

Baker, Wendy

I think.

0:18:6.540 --> 0:18:7.590

Baker, Wendy

The governments.

0:18:9.0 --> 0:18:14.90

Baker, Wendy

Accepted it because with their obligation to.

0:18:14.850 --> 0:18:20.220

Baker, Wendy

Consult with the First Nations and when the First Nations came to them with such a complete.

0:18:20.770 --> 0:18:23.130

Baker, Wendy

Umm, project review.

0:18:24.270 --> 0:18:30.210

Baker, Wendy

It would have flipped very bad for them to not go along and listen to what they had to say because.

0:18:30.880 --> 0:18:37.910

Baker, Wendy

Umm, there was no alternative process going on. There wasn't a government LED environmental review so.

0:18:38.970 --> 0:18:41.680

Baker, Wendy

This was really the only one and for the government to.

0:18:42.590 --> 0:18:46.500

Baker, Wendy

Not participate. It was going to happen without them anyway, so.

0:18:48.40 --> 0:18:50.30

Baker, Wendy

I think just in terms of.

0:18:51.230 --> 0:18:53.320

Baker, Wendy

They're good faith. They had to show up.

0:18:54.470 --> 0:19:0.690

Baker, Wendy

And and the the the company had to show up because it was their project and they knew that.

0:19:1.950 --> 0:19:10.310

Baker, Wendy

And the government would be listening to what the outcome was and if they didn't show up, then they would have no influence at all in the process. So.

0:19:10.940 --> 0:19:21.770

Baker, Wendy

If they wanted the mind to go ahead, they knew that they didn't really have much of a choice. They had to come and do their best to convince the nations that they could protect all of their interests and still do the mine.

0:19:22.660 --> 0:19:23.460

Baker, Wendy

And.

0:19:25.510 --> 0:19:26.360

Baker, Wendy

You know, there was.

0:19:27.270 --> 0:19:38.60

Baker, Wendy

It was remarkable, in my view, that the government accepted the outcome of the review and decided to respect the decision that the.

0:19:39.680 --> 0:19:49.70

Baker, Wendy

Process came up with because it could easily have rejected it. It had the power to reject it and I think you know, it would have been.

0:19:49.860 --> 0:20:16.650

Baker, Wendy

It would have been appealed, and it would have been challenged by the nation if they hadn't accepted the nation's views or not. The nations views. But the environmental reviews outcome. If that hadn't been accepted by the government, I think there would have been a big challenge to that in the legal system. And I think honestly, the government just thought it was a good process, thought it was a respectful process and it was such a clear.

0:20:17.950 --> 0:20:19.390

Baker, Wendy

A clear expression of.

0:20:20.460 --> 0:20:23.650

Baker, Wendy

The nations non consent to this going on.

0:20:25.70 --> 0:20:37.580

Baker, Wendy

And it was well researched and it was well based and heard from everybody. You know, it hurt from all the crowns it heard from the government. It heard from community members. It heard from experts, Western experts, indigenous experts.

0:20:38.740 --> 0:20:44.810

Baker, Wendy

So it would be very hard to say it was a not a reasoned expression of the projects.

0:20:45.860 --> 0:20:47.220

Baker, Wendy

Benefits and risks.

0:20:48.770 --> 0:20:53.40

Baker, Wendy

So they accepted that, which was quite remarkable and was very.

0:20:54.420 --> 0:20:58.480

Baker, Wendy

Gratifying relief for those of us who who did that process.

0:21:0.30 --> 0:21:0.540

Teunis, H.J.H. (Hein)

Alright.

0:21:1.760 --> 0:21:6.210

Teunis, H.J.H. (Hein)

So I'm not kind of focus or zoom in on 2 little things.

0:21:8.20 --> 0:21:23.120

Teunis, H.J.H. (Hein)

First, you said that there was this kind of weird we have to show up structures so the government felt complied to show up for the SN and then the mining company was to show up for.

0:21:24.720 --> 0:21:26.380

Teunis, H.J.H. (Hein)

The government so.

0:21:27.410 --> 0:21:35.470

Teunis, H.J.H. (Hein)

Traditionally you have governments, or the company wants to this government, but then the new layer here is the government also wants to please the local communities.

0:21:36.350 --> 0:21:39.520

Teunis, H.J.H. (Hein)

Do you see this as a radical developments in Canada?

0:21:40.410 --> 0:21:42.870

Teunis, H.J.H. (Hein)

Considering the past with resource management.

0:21:43.600 --> 0:21:44.970

Baker, Wendy

It's definitely.

0:21:46.380 --> 0:21:46.720

Baker, Wendy

And.

0:21:47.790 --> 0:21:53.740

Baker, Wendy

I don't know if I would say it's radical, but it's definitely a change in the way our governments have.

0:21:55.960 --> 0:21:56.450

Teunis, H.J.H. (Hein)

Help with.

0:22:15.930 --> 0:22:16.150

Teunis, H.J.H. (Hein)

No.

0:21:54.760 --> 0:22:22.290

Baker, Wendy

Have it dealt with First Nations interests and they've always involved the community in their reviews. You know, they've always asked the local cities and municipalities and people what they thought about permits. There's always been an opportunity for the community to participate, but this was one level beyond that for the First Nations where they really accepted the First Nations as another layer of government in a way.

0:22:24.410 --> 0:22:27.60

Baker, Wendy

So in that sense it it was pretty important.

0:22:29.660 --> 0:22:34.240

Teunis, H.J.H. (Hein)

OK, my audio is doing some weird stuff. Can you still hear me?

0:22:34.620 --> 0:22:34.860

Baker, Wendy

Yep.

0:22:35.350 --> 0:22:42.830

Teunis, H.J.H. (Hein)

OK, cool. So your voice is on my laptop and my microphone is connected to my headphones. I don't know what's happening here.

0:22:44.920 --> 0:22:51.780

Teunis, H.J.H. (Hein)

So you see those several like governments and ways of governance interacting.

0:22:52.500 --> 0:22:53.630

Teunis, H.J.H. (Hein)

And.

0:22:54.660 --> 0:23:3.130

Teunis, H.J.H. (Hein)

Which you it's quite hypothetical, but The Walking on two legs part of the environmental assessment.

0:23:4.230 --> 0:23:8.70

Teunis, H.J.H. (Hein)

Can't. Do you think it became quite essential to, like, legitimizing?

0:23:9.470 --> 0:23:12.790

Teunis, H.J.H. (Hein)

The environmental assessment itself. So we just say if.

0:23:13.490 --> 0:23:15.830

Teunis, H.J.H. (Hein)

It just wasn't inclusion of indigenous.

0:23:16.70 --> 0:23:21.10

Teunis, H.J.H. (Hein)

Uh, like an indigenous view, but not including the Western view?

0:23:21.900 --> 0:23:26.170

Teunis, H.J.H. (Hein)

Would you say in your professional opinion that the government would have reacted differently?

0:23:29.670 --> 0:23:36.460

Baker, Wendy

I don't, I don't know. But I I think that's not maybe the right question to ask because it kind of suggests that First Nations.

0:23:37.170 --> 0:23:58.440

Baker, Wendy

I only look at the world through their historic lens, but they don't. They're First Nations. People are fully engaged in our Western world and they are just as likely to have a master's degree in biology as they are to have an understanding of their traditional knowledge. So I don't think you would ever have.

0:24:0.230 --> 0:24:6.580

Baker, Wendy

Modern contemporary First Nations people unaware of or divorced from.

0:24:7.360 --> 0:24:11.650

Baker, Wendy

You know Western thinking because they live in the same world as the rest of us.

0:24:12.900 --> 0:24:14.330

Baker, Wendy

So you know it's.

0:24:15.110 --> 0:24:26.250

Baker, Wendy

I don't know. It's. I can't imagine a world where a First Nation would want to do a review without accessing as much knowledge as they could.

0:24:27.40 --> 0:24:27.340

Baker, Wendy

Sorry.

0:24:33.930 --> 0:24:34.590

Baker, Wendy

It's like.

0:24:32.470 --> 0:24:39.20

Teunis, H.J.H. (Hein)

Yeah, they, they, they've been always walking on two legs anyway, so why not keep doing that?

0:24:39.760 --> 0:24:41.170

Baker, Wendy

They will always do that, yeah.

0:24:41.250 --> 0:24:41.620

Teunis, H.J.H. (Hein)

Yeah.

0:24:44.160 --> 0:24:44.950

Teunis, H.J.H. (Hein)

And then.

0:24:46.100 --> 0:24:49.740

Teunis, H.J.H. (Hein)

I would like to focus in on the crowns duty to consult.

0:24:50.510 --> 0:24:51.390

Teunis, H.J.H. (Hein)

Uhm.

0:24:52.530 --> 0:25:1.450

Teunis, H.J.H. (Hein)

As I understand it, uh, it's mostly like a constitutional developments in Canada that is supplemented by some.

0:25:1.530 --> 0:25:6.160

Teunis, H.J.H. (Hein)

A A not case law, how do you call?

0:25:7.650 --> 0:25:7.820

Teunis, H.J.H. (Hein)

Yeah.

0:25:7.320 --> 0:25:8.210

Baker, Wendy

Yeah, he saw.

0:25:8.540 --> 0:25:9.260

Teunis, H.J.H. (Hein)

He's like, yes.

0:25:10.820 --> 0:25:11.750

Teunis, H.J.H. (Hein)

So.

0:25:13.60 --> 0:25:17.150

Teunis, H.J.H. (Hein)

Yeah. What we're like key moments in the fundaments of case law that's.

0:25:18.310 --> 0:25:19.0

Teunis, H.J.H. (Hein)

Kind of.

0:25:19.900 --> 0:25:22.560

Teunis, H.J.H. (Hein)

Emancipated Aboriginal rights, so to say.

0:25:23.140 --> 0:25:27.510

Baker, Wendy

OK, so the duty to consult does not a constitutional right?

0:25:28.300 --> 0:25:31.620

Baker, Wendy

The Constitution protects Aboriginal rights.

0:25:32.860 --> 0:25:35.50

Baker, Wendy

Umm, but it doesn't say what those are.

0:25:36.680 --> 0:25:37.80

Baker, Wendy

The.

0:25:37.780 --> 0:25:38.270

Baker, Wendy

Umm.

0:25:39.680 --> 0:25:50.410

Baker, Wendy

The rights of Aboriginal people in Canada exist outside and before the Constitution, there are preexisting rights, so the.

0:25:51.800 --> 0:25:54.510

Baker, Wendy

The way it's been described in the case law is that.

0:25:55.870 --> 0:25:57.460

Baker, Wendy

Aboriginal title.

0:25:59.20 --> 0:26:5.190

Baker, Wendy

Is it's. It's a burden on the Crown title.

0:26:5.860 --> 0:26:11.820

Baker, Wendy

So the Crown title is the concept that says when the crown came to North America.

0:26:13.60 --> 0:26:41.10

Baker, Wendy

They got to they got to own all the land and they got to decide who got what pieces of land and over time, the case law acknowledged that Aboriginal people were actually here before they came here and their title is unique. That's called we use the Latin term sewage generas. It's a unique title and it's a burden on Crown title and it restrains the crown in what it can do with Aboriginal land.

0:26:42.310 --> 0:26:50.740

Baker, Wendy

Where there are treaties that affects that, but in British Columbia, where there's very few treaties, it's a very big issue.

0:26:51.780 --> 0:26:52.410

Baker, Wendy

So.

0:26:54.810 --> 0:26:57.920

Baker, Wendy

That duty to consult comes out of that.

0:26:59.150 --> 0:27:14.660

Baker, Wendy

Special relationship that exists on the land for Aboriginal people and also the relationship between the the people that lived here before the Crown came and the crown in.

0:27:15.550 --> 0:27:31.0

Baker, Wendy

1763 The Royal proclamations said. You know, we will treat the inhabitants of this land differently and protect them, so it's a very, very long history in Canada.

0:27:31.790 --> 0:27:40.530

Baker, Wendy

And the modern in the modern incarnations of it are the study to consult is the most modern one, and it it comes out of.

0:27:41.440 --> 0:27:48.690

Baker, Wendy

This long standing relationship between the Crown and the people and their original position in this land.

0:27:50.10 --> 0:27:51.300

Baker, Wendy

So. Umm.

0:27:52.750 --> 0:27:55.220

Baker, Wendy

You know, there was a time when the Crown would just.

0:27:55.970 --> 0:28:0.100

Baker, Wendy

Issue permits for a resource extraction anywhere. It felt like in the lands and.

0:28:0.740 --> 0:28:13.990

Baker, Wendy

The Aboriginal people would fight that and say no, this is our land and you're interfering with our ability to carry on as we did previously, which is a protected right, you know, and the eventually the.

0:28:15.480 --> 0:28:27.690

Baker, Wendy

The nations, I mean the first one that really talks about the duty to consult, is that there's a case called hide donation and it was about a forest forestry license in Hawaii.

0:28:28.820 --> 0:28:58.810

Baker, Wendy

And they said look at if you issue this force license, then you're gonna take down all the trees and you're gonna radically interfere with our life and our relationship to our land. And before you do that, you have to talk to us about how our life and our rights and our relationship to the land are gonna be impacted. And you have to accommodate us, accommodate those preexisting rights in a way so that we're not hurt by what's gonna happen. And that's sort of the beginning of the duty to consult.

0:28:58.960 --> 0:29:3.680

Baker, Wendy

Comes out of that, which requires the crown now to consult with.

0:29:4.390 --> 0:29:11.920

Baker, Wendy

First Nations and say we want to do this or a company wants to do this. Do you have any views on it? And then the?

0:29:12.820 --> 0:29:22.710

Baker, Wendy

Nation comes back and says, you know, this is a sacred site or, you know, we require this river for our fishing or whatever it might be.

0:29:23.910 --> 0:29:25.710

Baker, Wendy

And then the crown has to.

0:29:27.180 --> 0:29:35.990

Baker, Wendy

Understand what those rights are. Understand how they'll be impacted and either not go ahead or go ahead in a way that accommodates so that the that.

0:29:36.740 --> 0:29:38.10

Baker, Wendy

Nations can say.

0:29:39.30 --> 0:29:59.950

Baker, Wendy

You know, if you if you use, you know river Y instead of River X, we can live with this because this other river is where we get our fish from. But right now you're gonna impact that. And that's too severe. So, but if you re rejig it so it goes in a different area, then we can live with it. So there's accommodations that can happen, but they have to consult first so that that's kind of where that duty to consult comes from.

0:30:2.750 --> 0:30:11.420

Teunis, H.J.H. (Hein)

And just because of how the Crown acts in Canada is both on provincial and national level, that due to consult has spread out.

0:30:12.290 --> 0:30:15.560

Baker, Wendy

That's right. We have. Our Constitution has two.

0:30:16.350 --> 0:30:24.740

Baker, Wendy

Two sections that divide up what parts of our world will be federal and what parts of our world will be provincial and the crown.

0:30:25.430 --> 0:30:28.580

Baker, Wendy

There's a provincial comment, a federal crown there, there's sort of a unified.

0:30:29.240 --> 0:30:37.270

Baker, Wendy

In in terms of First Nations, they're sort of a unified concept, but they do divide the responsibility so fisheries or federal.

0:30:38.10 --> 0:30:47.640

Baker, Wendy

Land in the provinces provincial. So you can see in our First Nations infringement context, you're often gonna have both of the crowns involved.

0:30:50.330 --> 0:30:50.840

Teunis, H.J.H. (Hein)

And.

0:30:50.60 --> 0:30:53.980

Baker, Wendy

What's the federal federal crown actually is responsible for Indians?

0:30:56.260 --> 0:30:56.580

Teunis, H.J.H. (Hein)

Alright.

0:30:58.710 --> 0:30:59.250

Teunis, H.J.H. (Hein)

So any?

0:30:55.180 --> 0:31:1.860

Baker, Wendy

As it's described in the Constitution, so anytime you're interfering with the peoples rights.

0:31:2.460 --> 0:31:3.450

Baker, Wendy

Or the people.

0:31:3.980 --> 0:31:13.150

Baker, Wendy

And you will always involve federal count as hard to imagine anything going on that doesn't involve the federal crown there. The primary crown that deals with it.

0:31:13.960 --> 0:31:16.750

Baker, Wendy

Indians, as they are called in the Constitution.

0:31:19.320 --> 0:31:36.800

Teunis, H.J.H. (Hein)

Lovely. Alright, well that's kinda my interview. So thank you so much for your time. I have again some privacy questions. Do you consent to me recording or to use this recording for research and save it for up to your year?

0:31:39.860 --> 0:31:40.130

Baker, Wendy

It's.

0:31:39.810 --> 0:31:40.390

Teunis, H.J.H. (Hein)

Yes.

0:31:41.630 --> 0:31:55.20

Teunis, H.J.H. (Hein)

OK. And would you like an opportunity to review my research before I publish it so that you can check what information you're disclosed and if you want to reduce some things?

0:31:57.910 --> 0:31:58.380

Teunis, H.J.H. (Hein)

Yes.

0:31:58.800 --> 0:31:59.50

Baker, Wendy

Yes.

0:31:59.780 --> 0:32:12.370

Teunis, H.J.H. (Hein)

OK, honey. Yes, I've got a verbal yes on the transcription. OK, well, thank you so much. And then let's switch over to the WhatsApp call to just chat if you have time.

0:32:12.780 --> 0:32:13.560

Baker, Wendy

OK. Thanks.

0:32:14.80 --> 0:32:14.990

Teunis, H.J.H. (Hein)

Thank you.