Elk Valley: Steelmaking Coal Centre

Exploring the economic impact of British Columbia’s Elk Valley coal mines

By Marlyn Chisholm
Senior Research Fellow
Resource Works Society
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And Resource Works explores the long-term economic future of British Columbia as a place that depends on the responsible development, extraction and transportation of the province’s long-term ec

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About this Report

Resource Works explores topics that have important implications for British Columbia’s economy, public policy process, and environmental and social health. During the first two years of our project, attention has been focused on the economic impacts that flow from the natural resources sector to individual communities in B.C., with a focus on urban municipalities in Metro Vancouver.

It is important to illustrate the relationship between B.C.’s cities and its natural resources because that relationship is so easy to take for granted. British Columbians living in the province’s major cities can easily feel removed from B.C.’s resource sector, which is largely based on projects in rural and remote regions.

Overlooking the benefits that flow from this important sector to all of B.C. can have significant consequences in terms of public policy. If too many British Columbians feel they and their communities do not benefit, or benefit very little, from natural resources, resource issues may not receive the public attention they warrant.

Our research shows that not only is the natural resource sector a major economic driver for B.C. as a whole, but economic impacts from the sector reach every region of the province, including B.C.’s major urban areas. We hope that these findings will help promote an accurate understanding of how economic activity from the resource sector affects British Columbians at a local level. In *Elk Valley: Steelmaking Coal Center* we examine the economic impact of a single resource company - Teck Resources Limited (“Teck”).

Teck is Canada’s largest diversified resource company with business units focused on copper, steelmaking coal, zinc and energy. Teck is the major steelmaking coal producer in B.C. and the company agreed to open its books to us for this study. The company’s five operating steelmaking coal mines are in close proximity in a comparatively remote region of Interior B.C. known as the Elk Valley region. Their clearly defined labour market, geographic boundaries, shipping patterns and cluster of supporting businesses made them an excellent case study.

Throughout history, commodity markets have been cyclical in nature and today steelmaking coal benchmark prices are down approximately 70% from their highs in 2011. Despite these challenging times, the industry continues to be an important contributor to the economic well-being of British Columbia. The purpose of this report is to see how economic and social benefits from a single resource company are diffused throughout the regional and provincial economy. Although each resource operation is unique, a common thread is that each operation employs workers from local communities and elsewhere in the province, purchases goods and professional services from a wide array of providers, and often serves as the hub for a cluster of local industries.

Obviously a major public benefit is the steady employment that allows families to settle and enjoy a good quality of life. But there are also significant social benefits. Teck and its suppliers donate money to charities and local causes. They help establish a sense of community and pride of purpose. They become a major part of what defines the community.
Managing resources responsibly is at the heart of success as a resource-driven economy. Citizens are asking whether we can have economic development based on natural resources and also be good stewards of the environment. British Columbians need to have confidence that the land, air and water are respected. The present study focuses on specific economic aspects of the Elk Valley region. Resource Works continue to develop and publish work studying environmental and social issues.

In the case of the Elk Valley, our findings are clear: steelmaking coal brings enormous prosperity to the region and to the rest of British Columbia.

**About the Author**

Marlyn Chisholm, principal of Chisholm Consulting, is senior research fellow of Resource Works and has 28 years of consulting experience in economic and social evaluation in the transportation, civil engineering, resource and tourism sectors, as well as in economic development, macro-economics, labour market and education.

**Executive Summary**

The Elk Valley steelmaking coal mines in southeastern British Columbia are a major economic driver in the province. An independent economic study by Resource Works found that Teck’s steelmaking coal mines in the Elk Valley:

- Spent over **$1 billion** on goods and services in 2013 throughout British Columbia with nearly **60%** or **$609.3 million** flowing to businesses in the Lower Mainland Southwest Development Region.
- Benefitted over **1,400** suppliers throughout B.C. and Alberta. Six key B.C. suppliers were investigated as part of this report. Several suppliers derived **70%** or more of their revenue from Teck. Three hundred and forty five indirect full-time jobs were created with a payroll of **$34.5 million**.
- Paid **$457.6 million** in direct wages in 2014, based on an average industry wage of **$114,600**.
- Directly employed **3,673** employees and another **320** at Teck’s corporate offices, which includes Vancouver and Sparwood.
- Generated work for a wide array of professional service providers including engineers, technical contractors, iron workers, pipefitters, environmental experts and employees in legal, real estate, insurance and financial roles.
- Produced **26.7 million** tonnes of steelmaking coal mined for export in 2014, with revenue value of **$3.3 billion**.

Throughout history, commodity markets have been cyclical in nature and today steelmaking coal benchmark prices are down approximately **70%** from their highs in 2011. Despite these challenging times, the industry continues to be an important contributor to the economic well-being of British Columbia.
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ELK VALLEY: Steelmaking Coal Centre

Economic Impacts of Selected B.C. Resource Industry Regional Operations

Introduction/Context

In 2014, Resource Works undertook two unprecedented economic impact studies that quantified the aggregate economic effects of B.C.’s resource sector, and cleared up some myths about its connection with the Lower Mainland economy. The first report, *High Impact: The Importance of Natural Resources to the Economy of British Columbia*, estimated that B.C.’s natural resource output in 2010 was $21.37 billion, or 11.2% of provincial GDP, and that over 55% of all jobs generated by the resource industries in B.C. are concentrated in the Lower Mainland.¹ The subsequent report, *Community Impacts*, evaluated the intrinsic connection between seven resource sector companies and a plethora of professional service providers in Metro Vancouver.² It was shown that these companies spent $1.3 billion on goods and services in Metro Vancouver in 2013, generating business for 1,665 suppliers, and full time employment and income for an untold number of workers.³ Using a “top down” approach, Resource Works has begun to change the public narrative about the importance of resources in the Lower Mainland and B.C.

The next step towards a fuller comprehension of the economic importance of resources is to assess the linkage between a specific industry operator and the cluster of suppliers and workers that depend on its business. The goal is not to quantify total economic or financial transactions related to any one resource industry operator, but to see how economic and social benefits from a resource company are diffused throughout the regional and provincial economy.

Approach

All resource operations are unique, but they all employ workers from local communities and elsewhere in the province, purchase goods and professional services from a wide array of providers, and often serve as the hub for a cluster of local industries (for example, parts manufacturing, machine repairs, servicing).

While resource companies create direct jobs for their workers, they also generate indirect employment at supplier companies. Resource industry workers also create induced employment when they spend their earnings. The indirect and induced expenditures generate further rounds of spending that ripple throughout the provincial economy. The full direct, indirect and induced effects of changes in or

³ This does not represent all resource sector expenditures on goods and services. These producers were chosen randomly, and do not necessarily represent B.C.’s largest resource companies.
expenditures by a company or industry can be estimated using multipliers from an input/output (I/O) model.\(^4\) When done properly, this approach provides an aggregate summary of all economic effects. The I/O approach was utilized in *High Impact*, cited earlier.

The approach taken here is different. We have selected a single major resource operation, Teck’s steelmaking coal mining operations in the Elk Valley, situated in the East Kootenay Region of Southeast B.C., to assess what the company spends on payroll, and its expenditure patterns both locally and further afield. While we could have undertaken this analysis with any resource company, we selected the Elk Valley operations for a few reasons. First, these five operating coal mines are in close proximity. Additionally, given these mines’ comparatively remote location, they have a clearly defined regional labour market, geographic boundaries and shipping patterns, as well as a distinct cluster of supporting businesses.

Our approach was to obtain the necessary data from Teck, and then connect with a selected group of suppliers to Teck’s steelmaking coal operations in B.C. We then consulted with these suppliers to determine the specific “indirect” effects of Teck’s expenditures, that is, employment and income generated among these suppliers, and what they in turn spend.

The limitation of this exercise is how, after two rounds of spending, the web of connections that relate only to Teck become complex. Specifically, while Teck’s suppliers can generally state what percentage of their revenues and employment are directly attributable to Teck, the suppliers to these suppliers generally cannot. For example, in 2013 34% of Neptune Terminals’ revenue was derived from shipping coal from Teck’s steelmaking coal operations in the Elk Valley, and it is possible to determine how many jobs were directly related to these expenditures. While Neptune Terminals, in turn, spent over $59 million on goods and services in B.C. in 2013, those further down the supply chain often have many customers or clients and cannot readily say what share of their jobs are related to Teck spending. So we have taken a conservative approach, just looking at a sample of the first “tier” of suppliers to Teck. We have also omitted any analysis of induced effects created by Teck employee spending.

**Information Sources**

In addition to a representative of Teck, we consulted with the following major suppliers to Teck’s Elk Valley steelmaking coal mining operations.

- **Neptune Bulk Terminals**: (North Vancouver, B.C.): One of the largest multi-product bulk terminals in North America, operating 24 hours a day, seven days a week. Teck has a 46% ownership interest in this company, and it operates on a cost-of-service basis. This terminal handles steelmaking coal, potash and phosphate rock. Steelmaking coal from the Elk Valley operations accounted for 34% of Neptune’s revenues in 2014. Neptune employed 370 full-time workers (CFTE\(^5\)T workers in 2014, most of whom live in Metro Vancouver. 127 workers were employed due to the existence of Teck’s Elk Valley steelmaking coal mines.

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\(^4\) Both Statistics Canada and B.C. Stats have Input/Output models, derived from detailed information pertaining to all economic transactions involved in the production or goods and services in the country or province.
• **Kal Tire**: (Vernon, B.C.): A wholly owned Canadian company based in Vernon, B.C., and Canada’s largest independent tire dealer. Kal Tire has 28 tire technicians employed in the Elk Valley, and a small number at its Vernon head office, all doing work directly related to Teck steelmaking coal operations.

• **Nohels Group Inc** (Sparwood, B.C.): A full service supplier of heavy equipment to the mining, earth moving, land development and logging industries. Based in the Elk Valley in eastern British Columbia, its workforce varies from 10 to 120 employees throughout the year, mostly local. Approximately 95% of their revenue is directly related to Teck’s Elk Valley steelmaking coal operations.

• **Dynamic Industries Ltd.** (Cranbrook, B.C.): Full service general contractor, with experience managing every aspect of complex mining and industrial projects including iron workers, welders, pipe fitters, machinists, millwrights, operators, carpenters and laborers. Teck’s Elk Valley steelmaking coal operations account for approximately 70% of Dynamic’s revenues. Employs 10-12 workers living in or near Sparwood, and 50-80 additional workers from throughout B.C. during summer maintenance at Teck’s Elk Valley operations.

• **Chinook Scaffold Systems Ltd.** (Trail, B.C.): Company that supplies custom built scaffolding services to all projects from industrial, commercial to residential. With several branches throughout western Canada, including Trail, Chinook has satellite offices in Elkford and Sparwood. Employs 23 FTE workers (variable throughout the year), with 95% of these related to Teck’s Elk Valley steelmaking coal mines. All employees are local.

• **Rayco Steel Ltd.** (Sparwood, B.C.): A family-owned business specializing in welding, fabrication, structural steel fabrication, heavy plate work, maintenance and equipment upgrades. Employs 70 workers, all of whom live in the Elk Valley and Crowsnest Pass. 100% of revenue is from Teck’s Elk Valley operations.

A more detailed description of each company and its employment and expenditures is provided in Appendix A, Table A1.

**Teck’s Elk Valley Mines Direct Job and Income Creation**

Teck owns and operates five steelmaking coal mines in the Elk Valley of the Kootenay Development Region of B.C. (in Southeast B.C.), and a sixth steelmaking coal mine in west central Alberta. In 2014, these mines produced a total of 26.7 million tonnes of steelmaking coal for export, with a revenue value of $3.3 billion.
Steelmaking coal from the Elk Valley is shipped via CP Rail to the west coast ports of Neptune Terminals or Westshore Terminals. From these points, steelmaking coal is loaded onto ships and transported to exports markets in Asia, the US, India and Latin America, and other countries. Sales to China have been growing in recent years, but were reduced in 2014 and remain at declined levels due to a slowdown in that country’s steelmaking activity.

Teck employed 3,673 workers at its Elk Valley coal mines in 2014, with another 320 at its corporate offices in B.C. Of their 3,993 workers, over 95% were local workers that lived in or near the Elk Valley. The mining operations generated work for a wide range of occupations such as engineers, geologists, technologists and equipment and logistics specialists, as well as jobs in several trades, and in supportive positions such as information technology, human resources and accounting.

**Total estimated wages and benefits** for the Elk Valley steelmaking coal mine employees in 2014 were **$457.6 million.** Most of this went to workers and their families living in the Kootenay Development Region, primarily around the Elk Valley region. These families spent their earnings on food, shelter, clothing, disposable and non-disposable consumer goods, largely within the Kootenay Development Region. We have not quantified these *induced* economic effects, but they are substantial.

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5 Includes benefits. This is an estimate based on average industry wage and benefits of $114,600 annually. This is significantly higher than Canada’s average industrial wage.
Expenditures and Other Benefits

1. Teck Expenditures on Goods and Services

Teck’s Elk Valley steelmaking coal operations are not only a major employer in the Kootenay Development Region, but also a major source of business for a large number of suppliers and professional service providers throughout B.C. In 2013, Teck’s Elk Valley operations spent over $1 billion on goods and services.

Expenditures on goods by the Elk Valley steelmaking coal operations included (but were not limited to):

- heavy equipment,
- fuel,
- tires,
- scaffolding,
- construction materials, and,
- electronic equipment for the mining process, coal transportation and office uses.

The mining operations also generated work for a wide array of professional service providers, some of which were:

- heavy equipment operators,
- machine and equipment maintenance,
- rail transportation,
- general contractors providing the services of trades such as iron workers, welders, fabrication, pipe fitters, machinists, millwrights, operators and carpenters,
- professional, scientific and technical contractors and consultants,
- legal services,
- fire, insurance, real estate and leasing services,
- business, building and other support services,
- general labour & janitorial, and,
- food service and accommodation.

The breakdown below shows that while almost one quarter of these expenditures occurred within the Kootenay Development Region ($246.54 million), nearly 60% flowed to businesses in the Lower Mainland Southwest Development Region ($609.3 million). Another 10% was spent in the Thompson Okanagan Development Region ($103 million), and smaller amounts were spent elsewhere in B.C. In addition to this, the Elk Valley mines spent approximately $713.6 million on goods and services in Alberta in 2013.
Table 1: Teck Elk Valley Mines’ Expenditure Shares in 2013 by Development Region

<table>
<thead>
<tr>
<th>Development Region</th>
<th>Total Dev. Region</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainland Southwest</td>
<td>$609,277,901</td>
<td>59.9%</td>
</tr>
<tr>
<td>Vancouver Island/Coast</td>
<td>$10,738,040</td>
<td>1.1%</td>
</tr>
<tr>
<td>Thompson Okanagan</td>
<td>$103,034,989</td>
<td>10.1%</td>
</tr>
<tr>
<td>Cariboo</td>
<td>$17,396,930</td>
<td>1.7%</td>
</tr>
<tr>
<td>Northeast</td>
<td>$12,719,200</td>
<td>1.2%</td>
</tr>
<tr>
<td>North Coast</td>
<td>$17,953,697</td>
<td>1.8%</td>
</tr>
<tr>
<td>Kootenay</td>
<td>$246,539,725</td>
<td>24.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,017,660,482</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Based on the findings of the *High Impact* report cited earlier, it should not come as a surprise that such a significant share of expenditures took place in the Mainland Southwest Development Region. Not only is this the shipping point for Elk Valley steelmaking coal to export markets, it is also where nearly one-third of B.C.-based suppliers to these operations are located. The largest expenditures on goods and services took place in Vancouver, Delta, North Vancouver and Langley.

**Indirect Jobs, Income and Expenditures Among Selected Suppliers**

Teck’s Elk Valley steelmaking coal mines have at least 1400 suppliers, almost evenly split between each B.C. and Alberta. These companies employ many workers in both provinces, and also purchase goods and services as inputs into their own operations. While some of these companies depend almost entirely on Teck’s Elk Valley steelmaking coal mines for their business, others have a larger customer base, where Teck is one of several clients. This makes it difficult to determine the precise share of total employment and expenditures by all of these suppliers that is derived from the existence of the Elk Valley steelmaking coal mines.

We have obtained a sample of information from the key suppliers identified above. It should be noted that, due to proprietary reasons, not all of these companies were able to provide full information, so our results should be seen as conservative, and not comparable to a full economic impact assessment using a I/O model.

In 2014, the *six key suppliers to Teck’s Elk Valley steelmaking coal mining operations participating in this study generated 345 full time jobs*. Of these, 127 were at Neptune Terminals’ North Vancouver Op. cit.
Elk Valley. The other 218 jobs were within the Kootenay Development Region, primarily the Elk Valley and nearby communities. Altogether, these six suppliers paid their workers approximately $34.5 million last year. Most of these jobs are unionized positions, and pay well ($80,000+ including wages and benefits), while some are seasonal.

Total declared expenditures on goods and services by participating key suppliers was $68.6 million in 2014, but as some held their proprietary data, the actual number was much higher. These purchases were made locally and throughout B.C.

Given that this data is based on only six out of over 700 British Columbian suppliers to the Elk Valley steelmaking coal mines, it represents only a part of the total economic benefits generated among all of their suppliers. It should also be noted that we have not calculated the indirect effects related to expenditures by employees of the suppliers, or the multiplier effects of these suppliers’ expenditures on inputs of their own.

**Table 2: Summary of Direct and Partial Indirect Economic Benefits of Elk Valley Operations**

<table>
<thead>
<tr>
<th></th>
<th>Jobs (FTEs)</th>
<th>Total payroll ($ million)</th>
<th>Expenditures ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct: Teck Elk Valley</td>
<td>3,993</td>
<td>$457.6</td>
<td>$1,017.7 (2013)</td>
</tr>
<tr>
<td>steelmaking coal mines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In KDR</td>
<td>3,833</td>
<td>Na</td>
<td>Na</td>
</tr>
<tr>
<td>MSWDR</td>
<td>160</td>
<td>Na</td>
<td>Na</td>
</tr>
<tr>
<td>Indirect: Six key suppliers</td>
<td>345</td>
<td>$34.5</td>
<td>$68.6</td>
</tr>
<tr>
<td>In KDR</td>
<td>218</td>
<td>$16.5</td>
<td>Na</td>
</tr>
<tr>
<td>MSWDR</td>
<td>127</td>
<td>$18.0</td>
<td>Na</td>
</tr>
<tr>
<td>Total</td>
<td>4,395</td>
<td>$498.63</td>
<td>1,086.3</td>
</tr>
</tbody>
</table>

KDR = Kootenay Development Region
MSWDR = Mainland Southwest Development Region

**Other Benefits**

In addition to employment and benefits to businesses throughout B.C., the extraction, processing and shipping of steelmaking coal from the Elk Valley generates other significant economic benefits such as taxes and royalties to the provincial and federal governments. We have not quantified this as part of this study.

Another economic benefit is the cluster of businesses that has evolved due to coal production in the Elk Valley. This geographic concentration of suppliers and related businesses specialize in a variety of trades and services specific to the steelmaking coal mining industry, for example structural steel fabrication, repair or heavy plate work. As a case in point, half of Kal Tire’s B.C. mining division workers are employed at Teck’s Elk Valley steelmaking coal mines. Over time, businesses have developed local
connections to a workforce with skills relevant to all aspects of the mining sector. And competition among local suppliers has made them more productive.

Teck’s Elk Valley mining operations and their suppliers contribute not only economic but also social benefits to their local communities. For example, Neptune Terminals has made significant contributions to its many community partners in North Vancouver, and is proud of its 40 year history in the community. It spends an average of $20 million annually on local businesses and also contributed to the cost of the recently-completed Low Level Road Project in North Vancouver.

Finally, at the global level, steelmaking coal from the Elk Valley region is an essential input into industrial production around the world. We recognize the cyclical nature of the steelmaking coal export market, and that there are many competitors in this industry, but the importance of coal to B.C. and other countries should not be understated.

**Conclusion**

The findings of our analysis demonstrate that the economic effects of a resource operation like Teck’s Elk Valley coal mines goes far beyond local payroll and expenditures. In 2014, the Elk Valley mines created 3,993 jobs and $458 million in payroll, with much of this concentrated locally and within the Kootenay Development Region. These were high-paying jobs for a wide array of occupations and skills that exist entirely because of this coal resource.

While Teck’s Elk Valley steelmaking coal mines’ spending of over $1 billion benefited the local and regional economy, approximately 60% of this spending flowed to the Mainland Southwest Development Region, in particular the Lower Mainland. This underscores the strong economic linkages between a typical resource company and the array of professional service providers throughout B.C., many of whom are established in the Lower Mainland.

Our small sample of six suppliers to the Elk Valley mining operations showed that these businesses generated another 345 jobs throughout B.C., with an associated payroll of $34.5 million in 2014. These same companies spent $68.6 million on goods and services. Considering that these are only six out of over 700 British Columbian suppliers to the Elk Valley mines, it is reasonable to deduce that the actual full benefits are much larger.
### Appendix A: Description of Key Suppliers to Elk Valley Coal Mines

**Table A1: Labour Force at Elk Valley Coal Mines**

<table>
<thead>
<tr>
<th>Company name</th>
<th>Location</th>
<th>Business description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neptune Terminals</td>
<td>North Vancouver</td>
<td>Import/export steelmaking coal, potash and phosphorus rock. Employed 370 FTE workers in 2014; of this 127 were employed due to the existence of Teck’s Elk Valley steelmaking coal mines. All of these workers live in the Mainland Southwest Development Region, largely in North Vancouver and Metro Vancouver. In 2014, total wages and benefits paid were $18.9 million, with $18 million attributable to Teck’s Elk Valley operations. Spent $59.3 million on goods and services in B.C. last year. Major suppliers were LNS Services, Vancouver Fraser Port Authority, Temel Industries, FM Global, Belterra Corporation, QCG systems, Blue Water West Limited, CWA Engineering, Corporate Electric, Iron Mountain Welding, TD Micronic, PNR Railworks, Finning.</td>
</tr>
<tr>
<td>Nohels Group Inc.</td>
<td>Sparwood</td>
<td>A full service supplier of heavy equipment to the mining, earth moving, land development and logging industries. 95% of revenues are from business with Teck’s Elk Valley steelmaking coal mines. Based in the Elk Valley in eastern British Columbia, its workforce varies from 10 to 120 employees throughout the year, mostly local. Gross payroll is $6.65 million annually. Spent $4.9 million on supplies and services in 2014. Suppliers included Finning Canada, Cat the Rental Store, Foothills Civil Culture, Brandt Tractor.</td>
</tr>
<tr>
<td>Chinook Scaffolding</td>
<td>Sparwood</td>
<td>Provides custom build scaffolding services to all projects from industrial, commercial to residential. Employs 23 FTE workers, although this fluctuates with demand. 95% of these jobs are related to Teck’s Elk Valley steelmaking coal mines. All local workers. Wages range from $80,000-$100,000 per worker including benefits.</td>
</tr>
<tr>
<td>Company</td>
<td>Town</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dynamic Industries</td>
<td>Cranbrook</td>
<td>Full service general contractor, with experience managing every aspect of complex mining and industrial projects - including iron workers, welders, pipefitters, machinists, millwrights, operators, carpenters and laborers. Teck’s Elk Valley steelmaking coal mines account for 70% of Dynamic’s business. Generates seasonal work, with 10-12 FTE living in or near Sparwood, and 50-80 workers (local and from elsewhere in B.C.) during the summer shutdown at coal fields. Wages range between $80,000-$100,000 per year. Expenditures in 2014 were $400,000-$500,000, with 90% of this spent in B.C.</td>
</tr>
<tr>
<td>Rayco Steel</td>
<td>Sparwood</td>
<td>Structural steel fabrication, heavy plate work, maintenance and equipment upgrade. Employs 70 workers, all of whom live in the Elk Valley and Crowsnest Pass. $3 million in gross payroll annually. Purchase steel from Alberta, but all other supplies &amp; services from B.C. ($3-$5 million per year) – e.g., Manitoulin Transport, Cloverdale Paint, Acklands, PJB Crane Services, Cat the Rental Store, Home Hardware, Varsteel.</td>
</tr>
<tr>
<td>Kal Tire (250) 542-2366</td>
<td>Vernon</td>
<td>A wholly-owned Canadian company based in Vernon, B.C., is Canada’s largest independent tire dealer. Kal Tire has a mining division. There are 28 Kal Tire technicians living and working in or near the Elk Valley mines, and another four in the Vernon office. Average technician wage is $80,000 per year.</td>
</tr>
</tbody>
</table>
Appendix B: Teck Steelmaking Coal Operations in Elk Valley, British Columbia (2014)

Table B1: Teck Elk Valley Operations

<table>
<thead>
<tr>
<th>Operation</th>
<th>Projected Life*</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fording River Operations</td>
<td>73 years</td>
<td>30 kilometres southeast of Sparwood</td>
</tr>
<tr>
<td>Elkview Operations</td>
<td>31 years</td>
<td>3 kilometres east of Sparwood</td>
</tr>
<tr>
<td>Greenhills Operations</td>
<td>13 years</td>
<td>29 kilometres northeast of Elkford</td>
</tr>
<tr>
<td>Coal Mountain Operations</td>
<td>3 years</td>
<td>8 kilometres northeast of Elkford</td>
</tr>
<tr>
<td>Line Creek Operations</td>
<td>22 years</td>
<td>25 kilometres north of Sparwood</td>
</tr>
</tbody>
</table>

* Projected proven and probable reserves

Table B2: Labour Force at Elk Valley Coal Mines

<table>
<thead>
<tr>
<th>Workforce by Site</th>
<th>% Local Employees in 2014</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal Mountain Operations</td>
<td>76%</td>
<td>291</td>
<td>325</td>
<td>323</td>
<td>318</td>
<td>259</td>
</tr>
<tr>
<td>Elkview Operations</td>
<td>67%</td>
<td>1045</td>
<td>1,108</td>
<td>1,069</td>
<td>957</td>
<td>867</td>
</tr>
<tr>
<td>Fording River Operations</td>
<td>63%</td>
<td>1223</td>
<td>1,202</td>
<td>1,188</td>
<td>1,171</td>
<td>1,111</td>
</tr>
<tr>
<td>Greenhills Operations</td>
<td>69%</td>
<td>611</td>
<td>600</td>
<td>593</td>
<td>581</td>
<td>527</td>
</tr>
<tr>
<td>Line Creek Operations</td>
<td>68%</td>
<td>503</td>
<td>509</td>
<td>507</td>
<td>468</td>
<td>406</td>
</tr>
<tr>
<td>Corporate</td>
<td>N/A</td>
<td>320</td>
<td>306</td>
<td>283</td>
<td>252</td>
<td>N/A</td>
</tr>
</tbody>
</table>