BC Geological Survey
Coal Assessment Report
976

COAL ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Elco Coal Property Assessment Report

TOTAL COST: CAD$0.00

AUTHOR(S): Murray Chitwood

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2014

PROPERTY NAME: Elco

COAL LICENSE(S) AND/OR LEASES ON WHICH PHYSICAL WORK WAS DONE:

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Fort Steele
NTS / BCGS: 082J07, 082J10
LATITUDE: ___50_____° ____22_____ ’ _____41.81_____" N
LONGITUDE: ____114_____° ___55_____ ’ __06.48_____" W (at centre of work)
UTM Zone: 11 EASTING: 647996.86 NORTHING: 5582788.38

OWNER(S): Teck Coal Limited

MAILING ADDRESS: Suite 3300, 550 Burrard Street, Vancouver, B.C V6C 0B3

OPERATOR(S) [who paid for the work]: Teck Coal Limited

MAILING ADDRESS: Suite 3300, 550 Burrard Street, Vancouver, B.C V6C 0B3

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
No work has been conducted on the Elco Property for the assessment year.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

COALFILE Number(s): 264-279

Coal Assessment Report

Teck Coal Limited

Elco Property

Teck

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1. Signature and Date

This report has been prepared by Murray Chitwood, Land Tenure Specialist, Teck Coal Limited, Calgary Office.

Murray Chitwood
Land Tenure Specialist
Dated: February 19, 2015

2. Location and Property Description

The Elco property is located in southeast British Columbia within the Elk River valley of the Rocky Mountains. It is located in the East Kootenay Regional District approximately 50 kilometers (km) north of the town of Elkford. Access is via highway 43, north from highway 3 at the town of Sparwood then via the Elk Lakes forest service road north of Elkford. Location of the rough centroid of the current known coal deposit on the property is at 50° 22' N, 114° 55' W.

Elevations on the property range from 1,460 metres (m) where the Elk River exits the south end of the property to, 2,400 m on the southeast corner of the property.

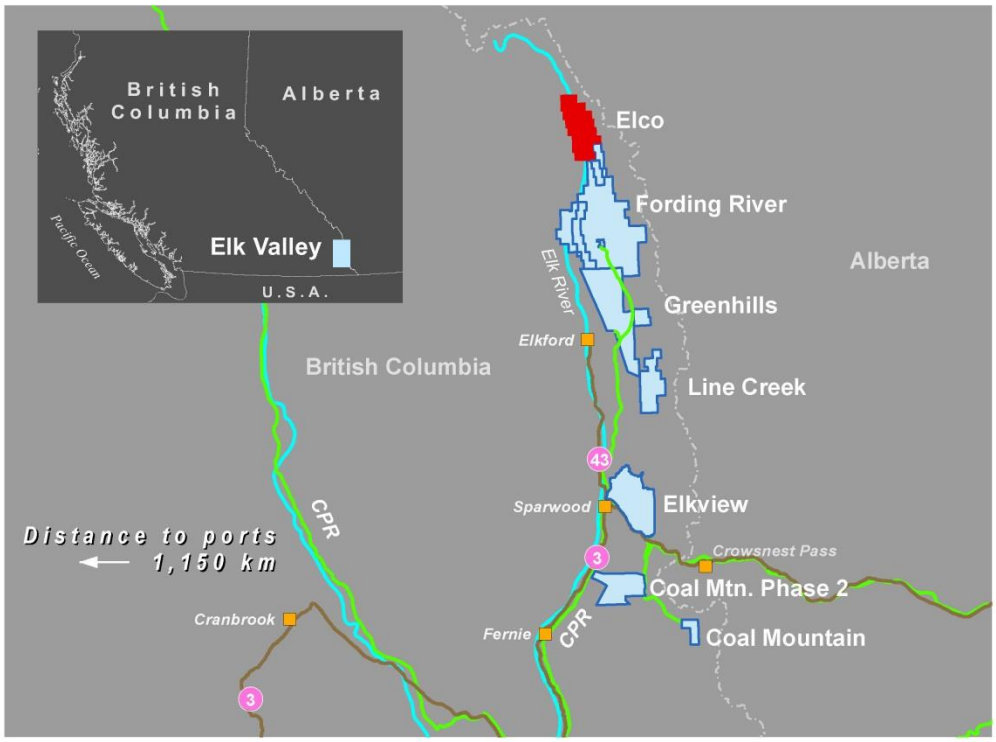

Figure 1: Property Location Map

Currently, the nearest rail load out is the facility at Teck Coal's Fording River operations; located approximately 25 km south of the Elco property. If a load out facility was to be constructed at the Elco property, the approximate coal transportation distance 1,078 km or 670 rail miles to the ports of Westshore Terminals Ltd. or Neptune Bulk Terminals Canada Ltd.

The climate of British Columbia is determined by its continental location and mountainous topography, and is characterized by long cold winters and short cool dry summers. Winter frontal systems moving easterly from the Pacific coast bring maritime Arctic air into the region,

which modifies temperatures and results in snowfall. Summer weather is generally good. The closest weather station to the mine site is located in Sparwood, British Columbia, 65 km to the south. A quarterly list of typical temperatures and precipitation for the area are listed in Table 2, Climate Summary in Sparwood, British Columbia.

Table 1: Climate Summary in Sparwood, British Columbia

Description	Jan	Apr	Jul	Oct	Annual Ave.
Temperature					
Daily Average (°C)	-6.8	4.9	15.4	5	**4.3**
Daily Maximum (°C)	-2.5	11	23.2	10.8	**10.3**
Daily Minimum (°C)	-11.1	-1.3	7.6	-1	**-1.7**
Extreme Maximum (°C)	10.3	25.6	34.1	27.2	
Extreme Minimum (°C)	-37.9	-15	0	-22.2	
Precipitation					
Rainfall (mm)	14	26.1	51.5	38.8	
Snowfall (cm)	50.6	15.6	0	11.1	
Precipitation (mm)	53.2	38.4	51.5	48.2	
Average Snow Depth (cm)	17	0	0	0	
Extreme Daily Rainfall (mm)	27.8	27.1	27.2	38.4	
Extreme Daily Snowfall (cm)	23.8	32	0	16.4	
Extreme Daily Precipitation	31.7	27.1	27.2	38.4	
Extreme Snow Depth (cm)	56	26	0	18	
Wind					
Maximum Hourly Speed	67	52	37	63	
Direction of Maximum Hourly	SE	SE	SW	E	**E**
Wind Chill					
Extreme Wind Chill	**-45.6**	**-23**	**-2.6**	**-27.1**	

3. Ownership

The ownership of the Elco Property is derived from a complex series of acquisitions and divestitures made by various interested stakeholders since the original coal licences were acquired by Scurry-Rainbow Oil Limited in 1967. In late 1969, Emkay Canada Natural Resources Limited became a joint venture partner by acquiring a 50% interest in the project. In 1973, a West German company, Exploration und Bergbau GMBH acquired all of Emkay Canada Natural Resources interest in the property. Exploration und Bergbau GMBH incorporated in Canada under the name of Elco Mining Limited. In 1976, Scurry-Rainbow Oil Limited (Scurry-Rainbow) divested 50% of their interest in the property to the Steel Company of Canada Limited (Stelco). In 1986, Fording Coal Limited (Fording) acquired the coal licences held by Elco Mining Limited (Elco) which gave a 50% interest in the property. In 1990, Fording acquired the 25% interest held by Stelco, giving Fording Coal 75% interest in the property. In 1993, Scurry-Rainbow was acquired by Home Oil Company Limited, subsequently consolidating the remaining 25% interest in the property. Home Oil was later acquired by Anderson Exploration in 1995. In 1998, as per

an amending and substitution agreement signed in 1986, Fording returned the interests of Elco. In 2001, Anderson Exploration Limited was acquired by Devon Energy Corporation. In 2003, Fording reacquired the Elco interests through the successor company to Elco Mining Limited, The Washington Group. Fording was eventually acquired by Teck Resources Limited and rebranded as Teck Coal Limited in 2008. The current ownership of the Elco property reflects the aforementioned acquisition and divestitures as Teck Coal Limited holds a 75% interest in the property and Devon Energy Corporation holds a 25% interest in the property.

4. Land Tenure

The majority of the Elco property is held as Coal Licences under the Province of British Columbia. Land is held under the name of Teck Coal Ltd in trust of the two partners. The 42 contiguous active coal licences are listed in Table 3 and displayed on the map on Figure 2. These coal licences encompass 7,782 hectares of land. The southern extension of the Elco property is located on Teck Coal Lease 389311 and on crown freehold grants owned by Teck Coal.

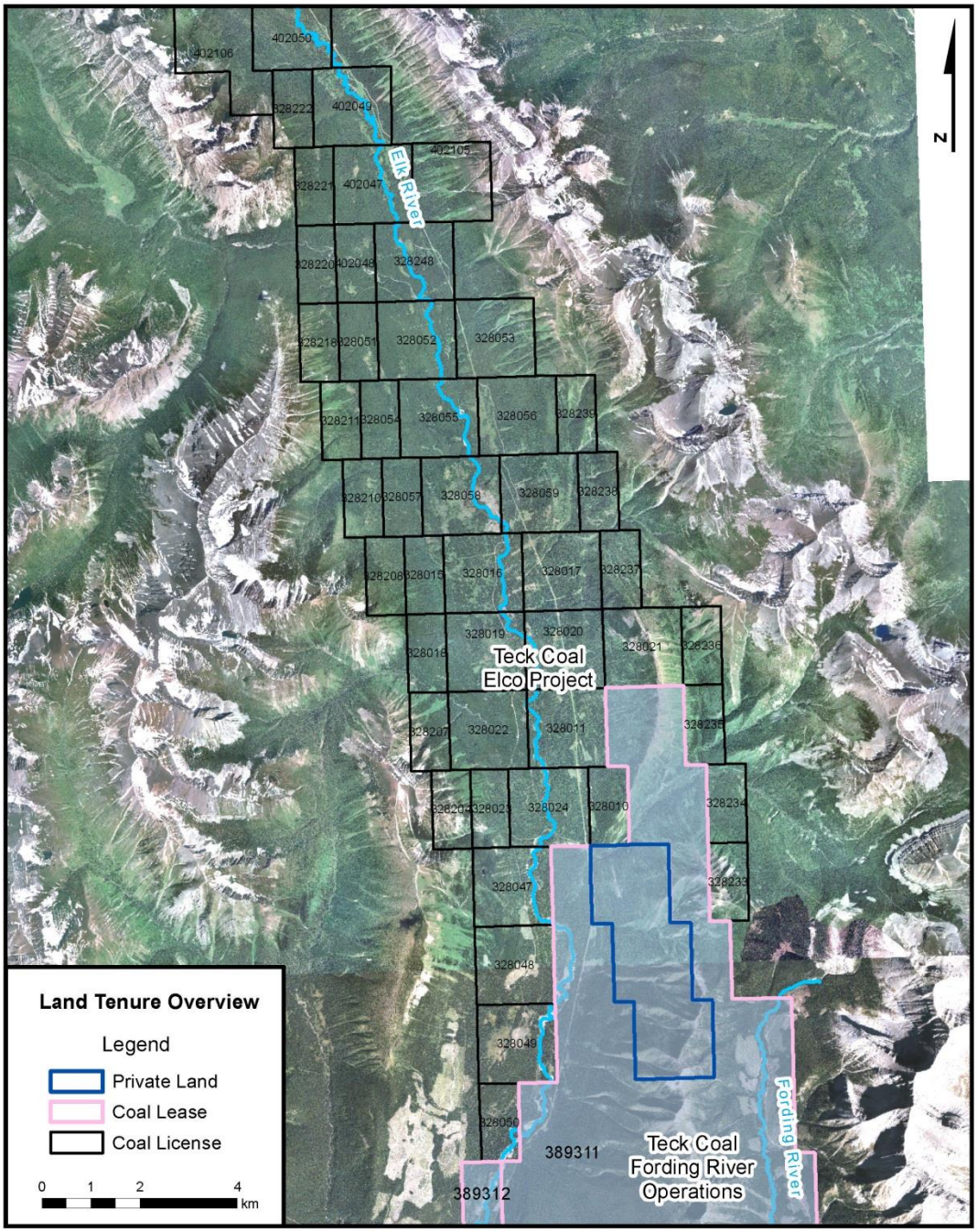

Figure 2: Map of Elco coal licences

Table 2: List of coal licences – Elco Property

British Columbia Coal Licence #	Parties	Status	Grant Date	Expiry Date	Official Area Value (Ha)
328010	TECK COAL LTD. (100%)	Active	9/25/1986	3/1/2015	130
328011	TECK COAL LTD. (100%)	Active	9/25/1986	3/1/2015	259
328015	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	130
328016	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328017	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328018	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	130
328019	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328020	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328021	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328022	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328023	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	130
328024	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328047	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328048	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328049	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	259
328050	TECK COAL LTD. (100%)	Active	12/5/1986	3/1/2015	130
328051	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	130
328052	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328053	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328054	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	130
328055	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328056	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328057	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	130
328058	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328059	TECK COAL LTD. (100%)	Active	7/16/1986	3/1/2015	259
328204	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328207	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328208	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328210	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328211	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328218	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328220	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328221	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328222	TECK COAL LTD. (100%)	Active	10/30/1986	3/1/2015	130
328233	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328234	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328235	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328236	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328237	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328238	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328239	TECK COAL LTD. (100%)	Active	2/11/1986	3/1/2015	130
328248	TECK COAL LTD. (100%)	Active	8/29/1986	3/1/2015	259

5. Geology

Coal reserves and resources are contained in the Mist Mountain Formation (Fm) of the Upper Jurassic to Lower Cretaceous Kootenay Group (approximately 150-120 million years ago). This formation consists of inter-bedded sandstone, siltstone, mudstone, and coal seams. These were deposited throughout the period, reaching a current thickness of approximately 680 m. At the Elco property, there are approximately 25 coal seams identified in the Mist Mountain Fm not including the numerous sub-seam splits associated with most of the coal seams. They have been identified numerically, lowest to highest as seams 1 (010) to 25 (250).

The Mist Mountain Fm is underlain by the Morrissey Fm. The predominant feature is the Moose Mountain sandstone member. It contains a minor coal seam in its upper portion. The Mist Mountain Fm is overlain by the Elk Fm which is a sequence of interbedded shale, thin coal seams, with minor sandstone and siltstone. The coal seams of the Elk Fm are not considered economic due to thickness and low quality.

The deposited sediments were involved in the mountain building movements of the late Cretaceous to early Tertiary Laramide Orogeny, which produced the structural features that currently dominate the area. The major structure element on the property is the roughly north south trending Alexander Creek syncline. The syncline axis runs roughly along the Elk River valley. Seams on the east flank of the valley dip to the west at roughly 40° (see Figure 5) while the same seams on the west flank of the valley dip east at over 80°. Little is known to date about faulting on the property. Some large displacement thrust faults have been observed in strata higher up the valley walls. It is likely that small scale, low angle thrusts will occur along some of the coal seams.

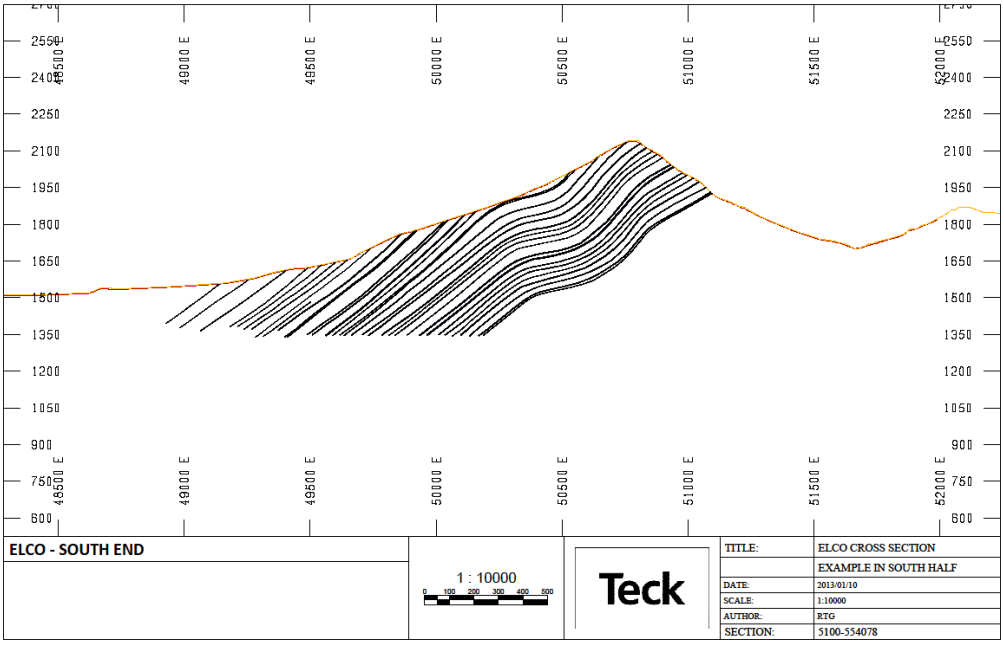

Figure 3: Example of Elco Geological Cross Section

6. Drilling and Sampling

Exploration activities occurred at Elco over a number of campaigns running from 1968 to 2001. The current data base contains 274 identified holes that have been located on and around the property.

Current database statistics indicate the following:

Table 3: Historical drilling by type

Data Type	Number
Core holes	210
Reverse Circulation	48
Other	16

Some of the "other" type includes 15 adits and 22+ trenches that provided bulk coal samples for metallurgical testing.

All boreholes were geophysically logged with gamma, neutron, resistivity and where feasible, density and caliper.

Core hole samples and bulk samples were analyzed for Proximate Analysis, sulphur and phosphorous in coal, free swelling index, heating value, ash fusion, rheology tests, coal petrography.

Table 4: Historical drilling information

Area	Area (hectare)	Number of Holes	Hole Spacing (meter)	Average Hole Spacing (meter)	Coal Analysis
North Half	3,421	219	300x150 (variable)	395	(see list above)
South Half	3,371	33	Variable up to 620	1010	(see list above)
Total Property	**6,792**[1]	**252**[2]		498	

Note (1) – area of calculation is area of full coal licences that contain or surround the drillholes.
Note (2) – a few of the holes in the data base are beyond the property limits used to calculate drill hole density.

7. Quality Assurance

All quality data has been collected and analyzed by previous owners of the property. Methods of sampling and analyzing have been documented in a multi-volume feasibility study as well as additional detailed submissions to the British Columbia government. These records provide some level of confidence in the results. However, Teck will validate the quality and quantity of coal on the property with its' own investigations.

8. Proposed Drilling and Work

Due to budgetary restraints associated with the current depressed coal prices, no exploration work has been budgeted for in 2015.