
Fording River Operations
Summary Report
2014 Exploration Program

A portion of Section IV, and a portion of Appendix C remain confidential under the terms of the Coal Act Regulation, and have been removed from the public version.

http://www.bclaws.ca/civix/document/id/complete/statreg/251_2004

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Statements of Author's Academic and Professional Qualifications
CERTIFICATE OF QUALIFIED PERSON

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I, Barry F. Musil, P.Geo, am employed as a Senior Geologist, Supervisor at Fording River Operations. This certificate applies to the report titled "Fording River Operations, Summary Report, 2014 Exploration Program". I graduated from the University of British Columbia with a Bachelor of Science Degree in Geology, 1984. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (# 19361). Since 1986 I have been involved with coal mining projects at Fording River, and other Teck Coal Operations. As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

"Signed and Stamped"

Barry F. Musil, P.Geo.



COAL ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Fording River Operations 2014 Exploration Program Summary Report

TOTAL COST: \$1,882,426.69

AUTHOR(S): B. F. Musil (P. Geo.)

SIGNATURE(S):

"Signed and Stamped"

Barry F. Musil, P. Geo.

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): CX-5-012, May 15 2014 – May 14 2019

STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):

YEAR OF WORK: 2014

PROJECT NAME: Turnbull Mountain Exploration (FRO)

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

| Coal Lease #389275 and #389331, District Lot #6711

| COAL LICENSE(S) IN PROJECT AREA ON WHICH NO PHYSICAL WORK WAS DONE OVER
| THE CURRENT REPORTING PERIOD:

BC MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: Mine #1630586

MINING DIVISION: Fort Steele

NTS / BCGS:

LATITUDE: 50 ° 12 ' "

LONGITUDE: 114 ° 52 ' " (at centre of work)

UTM Zone: 11 EASTING: 653000 NORTHING: 5565000

OWNER(S): Teck Coal Limited

MAILING ADDRESS: PO BOX 100, Elkford, BC, V0B 1H0

OPERATOR(S) [who paid for the work]: Same

MAILING ADDRESS: Same

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**):

Interbedded sequence of sandstones, siltstones, silty shales, mudstones, and medium to high volatile bituminous coal from the Mist Mountain Formation. The region is structurally complex, containing extensive thrust faulting and folding.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

Annual Assessment Reports Since 1970

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

SUMMARY OF TYPES OF WORK IN THIS REPORT		EXTENT OF WORK (in metric units)	ON WHICH TENURES
GEOLOGICAL (scale, area)			
	Ground, mapping		
	Photo interpretation		
GEOPHYSICAL (line-kilometres)			
	Ground (Specify types)		
	Airborne (Specify types)		
	Borehole		
	Gamma, Resistivity,	12,678 Meters	#389275, #389311, DL #6711
	Resistivity		
	Caliper	11791 Meters	#389275, #389311, DL #6711
	Deviation	12,678 Meters	#389275, #389311, DL #6711
	Dip		
	Others (specify): Density	11791 Meters	#389275, #389311, DL #6711
	Core		
	Non-core		
SAMPLING AND ANALYSES			
Total			

Number of Samples			
281	Proximate		#389275, #389311, DL #6711
	Ultimate		
281	Petrographic		#389275, #389311, DL #6711
281	Vitrinite reflectance		#389275, #389311, DL #6711
	Coking		
281	Wash tests		#389275, #389311, DL #6711
PROSPECTING (scale/area)			
PREPARATORY/PHYSICAL			
Line/grid (km)			
Trench (number, metres)			
Bulk sample(s)			

Fording River Operations

Summary Report

2014 Exploration Program

I. Introduction

1. General Geography and History

The Fording River Coal property is located in the Fording River and Upper Elk Valleys, approximately 25 kilometers north of Elkford, BC. Access is by paved road north from Elkford along the Fording River Valley, or north along the Elk River Valley via the Forestry Service gravel road or the Kan-Elk Powerline road.

The Fording River minesite is situated within the front range of the southern Canadian Rocky Mountains. At least ten major coal seams, generally greater than four meters thick, are contained in the Mist Mountain Formation of the Kootenay Group.

The Elk River portion of the property was actively explored by the Canadian Pacific Railway Company in the period 1902-1908. Until 1947, the property was comprised of 10,276 hectares in 40 Crown Granted Lots. In that year, the holdings were reduced to 2,979 hectares in 15 Crown Granted Lots. In 1967 and 1968, Canadian Pacific Oil and Gas reacquired part of the coal lands which had been abandoned in 1947. An additional nine Coal Licenses located at the south end of the property were acquired in 2001. At the present time, the Fording River Property consists of 22, 635 hectares, held on seven Coal Leases, 9 Coal Licenses, and 15 Crown Granted Lots.

Mining operations, which commenced in 1971, have produced more than 249 million tonnes of clean metallurgical and thermal coal for markets in North and South America, Africa, Europe, and Asia.

Reference:

- i) Illustration No. 1A: Index Map – Coal Properties

II. Geology

1. Stratigraphy

The general stratigraphic succession on the Fording River Property is summarized in the following table:

Table 1 - Fording River Stratigraphy

Period	Litho-Stratigraphic Units		Principle Rock Types
Recent			Colluvium
Quaternary			Clay, silt, sand, gravel, cobbles
Lower Cretaceous	Blairmore Group		Massive bedded sandstones and conglomerates
Lower Cretaceous to Upper Jurassic	K O O T E N A Y G R O U P	Elk Formation	Sandstone, siltstone, shale, mudstones, chert pebble conglomerate, minor coal
		Mist Mountain Formation	Sandstone, siltstone, shale, mudstones, thick coal seams
		Moose Mountain Member	Medium to coarse-grained quartz-chert sandstone
		Weary Ridge Member	Fine to coarse-grained, slight ferruginous quartz-chert sandstone
Jurassic	Fernie Formation		Shale, siltstone, fine-grained sandstone
Triassic	Spray River Formation		Sandy shale, shale quartzite
	Rocky Mountain Formation		Quartzite
Mississippian	Rundle Group		Limestone

The oldest rocks present on the Fording River property are the Rundle Group limestone, located on the west bank of the Fording River, near the southern property boundary.



They are in faulted contact with the Kootenay Group to the west, and unconformable contact with Rocky Mountain Formation quartzites to the north. The latter are best exposed on the eastern slope of the Brownie Creek valley.

The Fernie Formation shales occur throughout the area, generally along the sides of the valleys on the lower flanks of the mountains. The shales are recessive and, generally poorly exposed. However there are some good exposures of Fernie Formation strata on the lower western slopes of Eagle Mountain in some creek drainages. The Fernie Formation is in conformable contact with the Morrissey through the "Passage Beds," which are a transitional zone from marine to non-marine sedimentation.

The Morrissey Formation, which is the "basal sandstone" of the Kootenay Group, is a prominent cliff-forming marker horizon in many locations. On the Fording River property, the top of the Moose Mountain member (Morrissey Formation) is in sharp contact with 010 seam, the lowermost bed of the Mist Mountain Formation.

The Mist Mountain Formation contains all of the economic coal seams, and is the most widely occurring formation on the Fording River property. This economically important formation is an interbedded sequence of sandstones, siltstones, silty shales, mudstones, and medium to high volatile bituminous coal seams. The volatile content of the coal increases up section, with decreasing rank. Lenticular sandstones comprise about 1/3 of the Mist Mountain sediments at Fording River, but very few laterally extensive sandstone beds exist.

The sandstone above and below seam 040 and above 090, are the most persistent units, and are often cliff-forming marker horizons.

The Mist Mountain Formation is generally overlain conformably by strata of the Elk Formation. On the Fording property, this formation is commonly a succession of sandstones, siltstones, shales, mudstones, chert pebble conglomerates, and sporadic, thin, high volatile bituminous coal seams.



The coal seams are characterized by high alginate content and referred to as “Needle” coal. The Elk Formation is observed near the tops of the mountains, mainly on the east side of the Elk Valley on the Greenhills Range, and northward to the Mount Tuxford areas.

The top of the Elk Formation marks the upper boundary of the Kootenay Group, which is unconformably overlain by the basal member of the Blairmore Group. This thick bedded, cliff-forming sandstone and conglomerate unit is observed on the upper slopes of Mount Tuxford.

2. Structure

Subsequent to deposition, the sediments were involved in the mountain building movements of the late Cretaceous to early Tertiary Laramide orogeny. The major structural features of the Fording River property are the North-South trending synclines with near horizontal to steep westerly dipping thrust faults, and a few high angle normal faults. Some of the thrust faults were probably folded late in the tectonic cycle.

The formation of the major fold structures began early in the tectonic cycle. In the current mining area, two asymmetric synclines are evident: the Greenhills Syncline to the west, and the Alexander Creek Syncline to the east of the Fording River.

The thrust faulting (i.e.: the Ewin Pass and Brownie Ridge Thrusts), was probably contemporaneous with the later stages of folding. The intervening anticline was subsequently faulted (Erickson Fault), then eroded.

The Alexander Creek Syncline can be traced from the southern property boundary on Castle Mountain to the northern end of the property on Weary Ridge. The strata of the west limb, on the west face of Eagle Mountain, dip easterly at 20 to 25⁰, decreasing gradually to zero as the axis is approached. The east limb, however, attains a 20⁰ westerly dip within a much shorter (500m) distance of the axis.

This asymmetry is possibly due, at least in part, to the influence of the Ewin Pass Thrust which subcrops 600 to 800 meters east of the synclinal axis.

Further to the east, on Brownie Ridge, the strata dip westerly at a mean dip of 42° . The Brownie Ridge Thrust, which subcrops near the crest of the ridge, probably contributes to this steepening.

Within the mining area, the axis of the Alexander Creek Syncline plunges to the north at an average of 4° . Turnbull Mountain exhibits a localized series of en echelon fold structure, plunging both to the north and to the south. These subsidiary folds may be related to thrust faulting. From the south end of Mount Tuxford, the synclinal axis continues north-northwest along the base of Mount Veits and into the Elk River Valley near Aldridge Creek.

On Mount Tuxford, the beds exposed are those of the Elk Formation and the overlying (non-coal bearing) Cadomin Formation. The area has not been extensively explored. The stratigraphic sequence of the east limb, in the more extensively explored Mist Mountain strata near Aldridge Creek (Elco property), closely resembles the east limb strata found on Henretta Ridge, ten kilometers to the south.

On the northwest corner of Eagle Mountain, the lower Kootenay-upper Fernie section is the locus for a zone of near horizontal thrust faulting. The effect is to cause a double repetition of the lower coal seams and basal sandstone on the west synclinal limb. This fault zone is synclinal in form and continuous with the Ewin Pass Thrust zone found in the east limb.

The Greenhills Syncline in the mining area is essentially a "mirror-image" of the Alexander Creek structure. The east limb of the asymmetric syncline dips westerly at 15 to 25° , except in areas near the Erickson Fault, where 45 to 55° dips are common. The west limb exhibits much steeper dips, commonly in the 35 to 45° range. The Greenhills Syncline plunges northward (340 to 350°), at less than 5° , and then appears to die out to the north in the area of the Osborne Creek Depression.

The Erickson Fault, which locally runs along the base of the Greenhills Range, west of the Fording River, is one of the major regional faults. From south to north, this westerly dipping (10 to 70°) normal fault, brings Mist Mountain strata progressively into contact

with Rundle, Rocky Mountain, Spray River, Fernie, and Morrissey strata. The downthrown block is to the west. Near the south end of Lake Mountain, the Erickson Fault begins to “splay” into two zones.

The main fault runs along the eastern margin of Lake Mountain, and the subsidiary fault runs to the west and appears to “die out” northward. The steep northward dip exhibited in the Lake Mountain strata could be due to influence from these flanking “splays” of the fault. The flat lying region to the north of Lake Mountain (Osborne Creek Depression area) is completely void of outcrop, and the Erickson Fault has not been traced either through or to the north of this area.

Reference:

- i) Illustration No. 1B: General Geology Map

III. 2014 Exploration Project

1. Objective

The objective of the 2014 Turnbull Mountain RC drilling program was to improve resource confidence, gain a better understanding of coal quality, and to increase Fording River Operations’ reserves both inside and outside the permitted C3 boundary. In order to increase the mine’s reserves the seam locations, thickness, and quality data needed to be verified with tighter drill spacing’s to approximate 200 meters in the 210 fault block area.

2. Summary of Work Done

The Turnbull Mountain area is located east of the Fording River and south of Henretta Creek. Turnbull Mountain drilling consisted of 12,677 meters, completed outside of the C3 permitted boundary focusing on the 210 fault block.

Rotary drilling was performed by Foraco Canada Ltd (Calgary, AB) using Foremost DR-24

and Ingersol Rand TH-100 drill rigs. All holes were geophysically logged through the drill pipe using the gamma-neutron method. Holes that remained open following the removal of the drill pipe were logged for down hole deviation and gamma-density. The geophysical logs were produced by Century Wireline Services (Penhold, AB) (Appendix A). Management of the exploration project was under the direction and supervision of Fording River Operations' Geology department.

Coal seams intersected by rotary drilling were sampled in 0.5m intervals. Representative composite samples for each coal seam intersected were prepared at Fording River Operation's process plant laboratory. Samples from selected composites were forwarded to GWIL Laboratories (Calgary, AB) for single gravity wash and clean proximate analysis: Ash, VM, RM, Sulfur, FSI and P₂O₅. A split of each composite sample was sent to David E. Pearson and Associates (Victoria, BC) for petrographic analysis.

Access roads and drillsite locations were laid out by Silenus Resource Management Inc. (Cranbrook, BC). Actual road and drillsite construction was completed by the Nohels Group (Sparwood, BC). All timber harvesting services was provided by Trucut Logging Ltd. (Sparwood, BC). Fording River Operations' surveyors provided collar pickups for all drillholes.

The following table shows the drillhole locations with respect to Coal Lease and District Lot boundaries:

Table 2 – Turnbull Drillhole Locations

Coal Lease / District Lot	Drillholes
Coal Lease # 389275	3366, 3367, 3370, 3371, 3374, 3375, 3376, 3379, 3380, 3385, 3386
Coal Lease # 389311	3382, 3383, 3384
District Lot # 6711	3365, 3368, 3369, 3372, 3373, 3377, 3378

Drill hole collar locations are given in Appendix A.

Reference:

- i. Illustration No. 1a. Index Map - Coal Properties
- ii. Illustration No. 2A: 2014 Completed Exploration – Turnbull Orthophoto Map

3. Results

The program primary goal of the 2014 drilling program on Turnbull Mountain was to improve resource confidence through tighter spaced drilling, and increase coal location and quality knowledge. The program consisted of 21 holes an average depth of 605 meters. The holes intersected much of the stratigraphic section, from the Elk formation to the Mist Mountain. The Mist Mountain Formation in the Turnbull area contains five dominant coal seams (040, 050, 070, 110 and 130 packages) which are consistently greater than four meters in thickness, and often significantly thicker. The remaining seams packages were intersected but are often thin (less than three meters) and can lack continuity (see maps and cross sections 2a, 2b, 2c).

Turnbull is structurally dominated by the Ewin Pass Thrust Fault; resulting in the 210 and 220 fault blocks. With a number of the westernmost holes intersecting the relatively flat lying coal seams of the 210 block and the eastern holes intersecting the steeper dipping coals of the 220 block. Results from the 2014 drilling program are incorporated into the Turnbull and Fording River East 3D Block Models.

The clean coal assay results from the composite samples were added to the seam’s qualities in the data base. Seam qualities increase the knowledge of the coal’s marketability and assist the long term mine plan for the region (available analysis to date is given in Appendix B).



IV. Conclusion

The 2014 exploration drilling program has successfully increased drillhole density in the 210 fault block. The program has increased geological model confidence through confirmation of the existence and continuity of all coal seams in the package. The assay results also confirm favorable coal quality. These results have allowed Fording River Operations to update its current resources model and complete an economic assessment of Turnbull Mountain. The update to the resources for Turnbull Mountain is shown below:

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The economic assessment of Turnbull Mountain is based on assumptions to project future cash costs over the period of 2014 through 2087.

Table 4 - Commodity Prices and Cost Assumptions

Commodity Prices	
Hard Coking Coal (US\$/mtcc)	160
PCI Coal (US\$/mtcc)	115
Thermal Coal (US\$/mtcc)	90
Other Assumptions	
Oil Price (WTI - US\$/Bbl)	90
Natural Gas (US\$/Mbtu)	5.3
Discount Rate (%)	8
Exchange Rate (CAD/USD)	1.1

Annual total cash costs range between US\$87/t and US\$195/t from 2014 through 2087. At 2014 long-term price assumptions, the Turnbull Mountain coal resource is economic.

Further RC drilling is recommended on Turnbull Mountain to move more resources from speculative and inferred categories into indicated and measured, as well as to increase the amount and density of quality data (ash, volatile matter, P₂O₅, S, FSI, and DDPM).

The goal of future Turnbull drilling will be to achieve 200 x 200 meter drill density in the areas identified by the economic assessment and continue wider spaced exploration drilling on the remaining mountain.



Code	Name	Parties	Type	Status	Grant Date	Expiry Date	Official Area Value	Official Area Unit	Comments	Project
389275	COAL LEASE No. 01	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1974-01-01	2025-01-01	1,009.00	Ha	Coal Lease No. 1 (389275)	Fording River Operations, BC
389282	COAL LEASE No. 02	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1977-05-19	2028-05-19	2,250.00	Ha	Coal Lease No. 2 (389282)	Fording River Operations, BC
389285	COAL LEASE No. 05	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1982-03-17	2018-03-17	644	Ha	Coal Lease No. 5 (389285)	Fording River Operations, BC
389290	COAL LEASE No. 09	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1991-10-01	2021-10-01	1,096.00	Ha	Coal Lease No. 9 (389290)	Fording River Operations, BC
389310	COAL LEASE No. 16	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1998-05-09	2028-05-09	2,859.00	Ha	Coal Lease No. 16 (389310)	Fording River Operations, BC
389311	COAL LEASE No. 17	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	1999-05-09	2029-05-09	8,180.00	Ha	Coal Lease No. 17 (389311)	Fording River Operations, BC
389312	COAL LEASE No. 18	TECK COAL LIMITED (100.0000%)	CLE (BC)	Active	2000-01-30	2030-01-30	1,298.00	Ha	Coal Lease No. 18 (389312), includes Crown Grants	Fording River Operations, BC
402047	CLIC-402047	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	259	Ha	Coal License	Fording River Operations, BC
402048	CLIC-402048	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	129	Ha	Coal License	Fording River Operations, BC
402049	CLIC-402049	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	258	Ha	Coal License	Fording River Operations, BC
402050	CLIC-402050	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	259	Ha	Coal License	Fording River Operations, BC
402051	CLIC-402051	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	261	Ha	Coal License	Fording River Operations, BC
402052	CLIC-402052	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	258	Ha	Coal License	Fording River Operations, BC
402053	CLIC-402053	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	129	Ha	Coal License	Fording River Operations, BC
402054	CLIC-402054	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	129	Ha	Coal License	Fording River Operations, BC
402055	CLIC-402055	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	259	Ha	Coal License	Fording River Operations, BC
402056	CLIC-402056	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	259	Ha	Coal License	Fording River Operations, BC
402057	CLIC-402057	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	130	Ha	Coal License	Fording River Operations, BC
402058	CLIC-402058	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	240	Ha	Coal License	Fording River Operations, BC
402105	CLIC-402105	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	259	Ha	Coal License	Fording River Operations, BC
402106	CLIC-402106	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	325	Ha	Coal License	Fording River Operations, BC
402110	CLIC-402110	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	258	Ha	Coal License	Fording River Operations, BC
402111	CLIC-402111	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	255	Ha	Coal License	Fording River Operations, BC
402112	CLIC-402112	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	228	Ha	Coal License	Fording River Operations, BC
402113	CLIC-402113	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	95	Ha	Coal License	Fording River Operations, BC
402115	CLIC-402115	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2003-05-08	2015-05-08	284	Ha	Coal License	Fording River Operations, BC
417067	CLIC-417067	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2005-10-14	2015-10-14	259	Ha	District Lot 6704, application No. 416886	Fording River Operations, BC
417068	CLIC-417068	TECK COAL LIMITED (100.0000%)	CLI (BC)	Active	2005-10-14	2015-10-14	259	Ha	District Lot 6705	Fording River Operations, BC

APPENDIX B - Hole Collar Survey

Turnbull Mountain

Drillhole Name	UTM COORDINATES		Elevation	Azimuth	Dip	Hole Depth (m)
	Easting	Northing				
3365	652533	5565148	2047	0	-90	621
3366	652547	5564902	2100	0	-90	609
3367	652410	5564692	2050	0	-90	610.35
3368	652595	5565348	2006	0	-90	641
3369	652681	5565615	2008	0	-90	616
3370	652725.60	5564919.80	2178.40	0	-90	596.3
3371	652950.80	5564859.60	2177.10	60	-70	603.1
3372	652898.30	5565478.00	2159.40	0	-90	599
3373	652896.3	5565258.3	2164.5	0	-90	598
3374	652888.3	5565092.2	2119.8	0	-90	602.6
3375	652950.2	5564859.2	2177.1	0	-90	616.25
3376	653109.7	5564710.2	2109.7	0	-90	599
3377	653230.2	5565453.4	2172.9	0	-90	604
3378	653253.6	5565214.1	2319.6	0	-90	599.5
3379	653313.8	5565027.4	2298.9	0	-90	599
3380	653263.8	5564486.7	2085.2	0	-90	616.7
3382	653672.2	5564837.2	2314.5	0	-90	617
3383	653827.7	5564907.2	2327.2	0	-90	598.4
3384	654006.4	5564775	2303.4	0	-90	550.51
3385	653420.1	5564958.6	2297	0	-90	592
3386	653314.6	5565027.9	2299.1	60	-70	589.2

C. i) Turnbull 2014 Sample Analysis

***Sample analysis conducted by Fording River Operations Laboratory

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3365	FRO14-0317	135.13	136.12	130210	0.85	38.5	21.69	38.96	7.5	0.83
3365	FRO14-0318	154.5	156.71	123210	0.88	28.1	24.09	46.93	7	0.42
3365	FRO14-0319	208.99	210.52	124210	0.79	40.3	20.88	38.03	6	0.56
3365	FRO14-0320	235	237.4	111210	0.75	18.8	24.09	56.36	7	0.81
3365	FRO14-0321	238.32	239.99	110210	0.83	13.6	25.12	60.45	7	0.76
3365	FRO14-0322	245.82	248.1	111210	0.85	18.2	24.3	56.65	7.5	0.75
3365	FRO14-0323	249.28	252.9	110210	0.9	19	24.28	55.82	7	0.48
3365	FRO14-0324	264.59	266.8	114210	0.78	37.3	20.2	41.72	5.5	0.75
3365	FRO14-0325	319.09	324	111210	0.9	12.1	23.67	63.33	7.5	0.51
3365	FRO14-0326	325.1	328.38	110210	0.82	28.7	20.77	49.71	7.5	0.52
3365	FRO14-0327	368.1	369.32	91210	0.56	20.2	20.57	58.67	6	0.72
3365	FRO14-0328	373.39	374.84	90210	0.66	32.1	18.24	49	1.5	0.88
3365	FRO14-0329	407.21	413.11	80220	0.64	32.5	19.6	47.26	4.5	0.46
3365	FRO14-0330	466.5	467.61	71220	0.55	27.8	17.88	53.77	5	0.56
3365	FRO14-0331	505	509.69	70220	0.59	18.7	19.37	61.34	4	0.49
3365	FRO14-0332	516.2	521	50220	0.57	23.7	19.18	56.55	4.5	0.43
3365	FRO14-0333	601.88	611.4	40220						
3365	FRO14-0334	612.09	613.92	42220	0.64	28.4	18.64	52.32	7.5	0.4
3366	FRO14-0357	18.81	20.03	170210	0.92	27.8	26.84	44.44	4	0.71
3366	FRO14-0358	105.22	108.23	149210	0.89	31.1	24.58	43.43	5	0.72
3366	FRO14-0359	109.1	110.4	140210	0.8	23.6	27.65	47.95	7	1.27
3366	FRO14-0360	146.2	148.6	142210	0.79	29.1	24.4	45.71	7.5	0.73
3366	FRO14-0361	188.92	191.4	130210	0.85	21.4	26.09	51.66	7	0.89
3366	FRO14-0362	215.81	217.98	123210	0.87	15.5	26.47	57.16	7.5	0.49
3366	FRO14-0363	219.12	221.29	121210	0.77	33.4	22.58	43.25	7	0.72
3366	FRO14-0364	262.12	262.92	122210	0.8	27	22.41	49.79	7.5	0.64
3366	FRO14-0365	288.81	289.99	117210	0.74	14.7	26.56	58	8	0.99
3366	FRO14-0366	292.58	298.6	115210	0.68	20.8	24.79	53.73	6	0.5
3366	FRO14-0367	317.91	321.22	113210	0.64	19.3	24.14	55.92	8	0.69
3366	FRO14-0368	327.62	328.3	111210	0.53	34.5	21.98	42.99	7.5	0.79
3366	FRO14-0369	346.01	347.8	110210	0.63	20	24.64	54.73	8	0.83
3366	FRO14-0370	404.43	406.1	115220	0.66	24.1	23.13	52.11	8	0.6
3366	FRO14-0371	406.9	409.42	113220	0.6	13.4	25.3	60.7	8	0.55
3366	FRO14-0372	410.9	412.45	111220	0.65	20.2	20.93	58.22	6	0.63
3366	FRO14-0373	413.19	417.22	110220	0.63	21.6	22.71	55.06	7	0.51
3366	FRO14-0374	346.01	347.8	110210	0.63	20	24.64	54.73	8	0.83
3366	FRO14-0375	448.03	449.1	90220	0.56	35.7	19.09	44.65	7.5	0.76
3366	FRO14-0376	462.31	464.33	92220	0.64	24	19.16	56.2	3	0.81
3366	FRO14-0377	494.99	500.13	80220	0.56	27.6	19.34	52.5	5	0.42
3366	FRO14-0378	585.01	590	70220	0.39	19.7	19.86	60.05	5	0.46
3366	FRO14-0379	596.21	600.7	50220	0.47	17.8	19.93	61.8	3.5	0.41

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3367	FRO14-0486	16.81	17.9	141210	3.49	28.6	23.17	44.74	0.5	0.61
3367	FRO14-0487	22.31	25.3	140210	1.13	35.6	21.01	42.26	2	0.66
3367	FRO14-0488	44	46.01	142210	0.72	29.8	23.38	46.1	7	0.75
3367	FRO14-0489	78.4	83.01	131210	0.63	34.5	22.24	42.63	6.5	0.86
3367	FRO14-0490	78.4	80.7	131210	0.58	23.4	26.12	49.9	7.5	0.9
3367	FRO14-0491	81.86	83.01	130210	0.54	36.8	20.9	41.76	6	0.66
3367	FRO14-0492	102.81	104.59	121210	0.4	22.9	23.9	52.8	7.5	0.57
3367	FRO14-0493	241.99	248.39	90210	0.35	29.7	20.39	49.56	3.5	0.45
3367	FRO14-0494	388.3	394.89	80220	0.38	30.4	18.25	50.97	4	0.42
3367	FRO14-0495	452.8	453.81	71220	0.3	34.1	16.41	49.19	5.5	0.58
3367	FRO14-0496	487.31	493.01	70220	0.34	23.4	18.12	58.14	4.5	0.4
3367	FRO14-0497	587.69	598.41	40220	0.31	15.4	18.4	65.89	3.5	0.27
3367	FRO14-0498	599.39	600.59	42220	0.37	28.9	15.75	54.98	4	0.37
3367	FRO14-0499	498.09	502.59	50220	0.33	26.8	20.24	52.63	1.5	0.31
3368	FRO14-0507	34.01	36.41	142210	0.48	25.9	25.27	48.35	7.5	0.81
3368	FRO14-0508	86.19	88.4	131210	0.42	32	23.69	43.89	8	0.65
3368	FRO14-0509	110.4	115.59	123210	0.49	34.5	23.42	41.59	7.5	0.49
3368	FRO14-0510	110.4	112.99	123210	0.56	29.3	24.08	46.06	7.5	0.41
3368	FRO14-0511	114.03	115.59	121220	0.54	27.6	26.68	45.18	8	0.82
3368	FRO14-0512	130.81	134.19	120210	0.47	19	27.98	52.55	8	0.45
3368	FRO14-0513	222.39	225.19	115210	0.49	16.4	25.72	57.39	8	0.53
3368	FRO14-0514	229.01	229.99	113210	0.47	26.4	22.72	50.41	7.5	0.75
3368	FRO14-0515	237.69	239.31	111210	0.4	27.1	23.22	49.28	7.5	0.59
3368	FRO14-0516	242.11	243.89	110210	0.5	15.9	26.19	57.41	8	0.81
3368	FRO14-0517	266.79	267.6	114210	0.32	24.9	23.37	51.41	8	0.8
3368	FRO14-0518	307	310.99	115220	0.4	15.7	23.89	60.01	8	0.42
3368	FRO14-0519	311.8	313.39	111220	0.38	12.1	24.8	62.72	8	0.61
3368	FRO14-0520	314.09	318.39	110220	0.33	17.2	23.27	59.2	8	0.49
3368	FRO14-0521	354.8	357	92220	0.37	27.1	19.09	53.44	2.5	0.68
3368	FRO14-0522	381.6	383.7	80220	0.37	31.3	18.66	49.67	4	0.42
3368	FRO14-0523	473.41	477.71	70220	0.32	21.2	20.13	58.35	5	0.45
3368	FRO14-0524	484.99	489.49	50220	0.34	20.9	19.47	59.29	5	0.38
3368	FRO14-0525	580.99	586.99	40220	0.3	13.9	18.73	67.07	5	0.31
3368	FRO14-0526	587.8	589.5	42220	0.31	21.6	17.78	60.31	7	0.43
3368	FRO14-0527	628.71	630.8	10220	0.31	29.7	17.21	52.78	5	0.44
3369	FRO14-0335	29.6	31.9	131210	1.06	29.6	24.22	45.12	7	0.73
3369	FRO14-0336	189.11	190.41	199210	0.9	24.4	24.88	49.82	8	0.84
3369	FRO14-0337	248.01	252.39	120220	0.97	17.9	25.05	56.08	8	0.58
3369	FRO14-0338	313.89	328.09	115220	0.79	26.9	19.21	53.1	5.5	0.46
3369	FRO14-0339	367.02	369.62	110220	0.73	34.3	19.24	45.73	6	0.69
3369	FRO14-0340	371.02	373.3	112220	0.68	22.4	21.05	55.87	1.5	0.61
3369	FRO14-0341	400.19	402.41	90220	0.58	28	20.97	50.45	6	0.5
3369	FRO14-0342	490.01	494.8	70220	0.54	31.9	18.23	49.33	4	0.44
3369	FRO14-0343	503.51	508.41	50220	0.47	21.7	19.23	58.6	4.5	0.41

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3369	FRO14-0344	593.6	599.2	40220	0.58	20.9	18.46	60.06	4.5	0.35
3369	FRO14-0345	600.42	601.61	42220	0.56	28.3	18.05	53.09	6	0.4
3370	FRO14-0434	121.81	123.01	150210	0.88	31.4	25.88	41.84	7.5	0.5
3370	FRO14-0435	170.4	172.26	149210	0.89	27.7	27.62	43.79	6	0.79
3370	FRO14-0436	173.79	175	140210	0.88	36.5	22.15	40.47	6	0.51
3370	FRO14-0437	254.3	258.89	121210	0.82	29.8	23.97	45.41	7.5	0.51
3370	FRO14-0438	310	311	122210	0.79	25.4	24.84	48.97	7.5	0.96
3370	FRO14-0439	316.41	318.01	124210	0.77	16.9	24.54	57.79	7.5	0.76
3370	FRO14-0440	339.99	342.99	115210	0.82	21.5	25.02	52.66	8	0.74
3370	FRO14-0441	346.02	347.71	113210	0.81	33.2	21.59	44.4	7	0.67
3370	FRO14-0442	348.69	350.47	111210	0.85	40.4	19.5	39.25	5	0.76
3370	FRO14-0443	367.61	369.79	110210	0.72	31.2	21.99	46.09	7.5	0.75
3370	FRO14-0444	393.7	397.22	120220	0.71	30.3	20.91	48.08	8	0.47
3370	FRO14-0445	453.89	461.21	111220	0.77	27.2	20.79	51.24	6	0.52
3370	FRO14-0446	453.89	456.14	111220	0.71	21	23.2	55.09	8	0.49
3370	FRO14-0447	457.27	461.21	111220	0.75	23.6	20.99	54.66	6.5	0.61
3370	FRO14-0448	467.01	473.2	110220	0.65	27.6	20.38	51.37	5	0.49
3370	FRO14-0449	510.59	512.19	112220	0.64	26.3	19.25	53.81	6	0.66
3370	FRO14-0450	517.89	519.09	114220	0.7	39.4	17.39	42.51	6.5	0.67
3370	FRO14-0451	535.8	538.5	92220	0.55	22.9	21.11	55.44	2.5	0.62
3370	FRO14-0452	568.69	573.29	80220	0.59	22.4	20.24	56.77	4	0.47
3370	FRO14-0453	574	575.21	82220	0.58	39.8	16.5	43.12	1	0.41
3371	FRO14-0572	113.71	115.52	170210	0.56	33.5	25.5	40.44	6	0.49
3371	FRO14-0573	211.98	214.69	141210	0.55	22.3	26.76	50.39	8	1.02
3371	FRO14-0574	215.49	216.7	149210	0.59	30.4	25.28	43.73	7.5	1.06
3371	FRO14-0575	221.32	224	142220	0.59	19.4	27.54	52.47	8	0.83
3371	FRO14-0576	259.99	269.01	130210	0.61	27.6	23.71	48.08	7.5	0.49
3371	FRO14-0577	278.89	280.11	132210	0.61	30	22.78	46.61	7.5	0.54
3371	FRO14-0578	351.7	359	123210	0.46	26.1	24.94	48.5	7.5	0.69
3371	FRO14-0579	359.99	362.09	120210	0.47	31.5	23.76	44.27	7	0.65
3371	FRO14-0580	405.8	410.71	120220	0.52	27.4	21.93	50.15	8	0.58
3371	FRO14-0581	463.59	467.29	111220	0.52	20.5	22.55	56.43	7.5	0.52
3371	FRO14-0582	471.4	475.58	110220	0.33	30	19.83	49.84	7	0.56
3371	FRO14-0583	498.11	499.01	199220	0.45	25.3	22.37	51.88	3	0.47
3372	FRO14-0415	190.79	194.5	142210	0.97	19.7	26.73	52.6	7.5	0.77
3372	FRO14-0416	196.69	200.01	142210	0.98	14.4	28.32	56.3	8	0.77
3372	FRO14-0417	231.21	232.41	131210	0.98	25.9	25.35	47.77	7.5	0.75
3372	FRO14-0418	271.79	275.21	121210	0.94	29.5	25.51	44.05	7.5	0.65
3372	FRO14-0419	289.7	290.91	120210	0.68	32.5	27.38	39.44	4.5	0.44
3372	FRO14-0420	353.01	359.79	130220	0.79	28	24.77	46.44	8	0.56
3372	FRO14-0421	432.29	435	120220	0.71	11.9	27.08	60.31	5	0.58
3372	FRO14-0422	489.71	496.81	115220	0.79	27.7	20.58	50.93	5	0.54
3372	FRO14-0423	505.8	509.52	110220	0.7	21.5	21.15	56.65	5	0.6
3372	FRO14-0424	544.01	546.81	90220	0.63	24.7	21.2	53.47	7.5	0.61

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3372	FRO14-0425	548.79	551.3	92220	0.64	21.2	20.89	57.27	4.5	0.5
3372	FRO14-0426	577.29	579.21	80220	0.6	23.3	21.56	54.54	4.5	0.45
3373	FRO14-0392	237.5	239.5	131210	0.68	26.8	25.2	47.32	6.5	0.86
3373	FRO14-0393	313.5	317	121210	0.78	32.6	22.57	44.05	7.5	0.56
3373	FRO14-0394	317	319.5	120210	0.66	18.4	27.36	53.58	8.5	0.67
3373	FRO14-0395	356	358	124210	0.65	30.9	22.14	46.31	7.5	0.94
3373	FRO14-0396	386.5	389.5	120220	0.63	16	24.87	58.5	8.5	0.55
3373	FRO14-0397	393.5	394.5	122220	0.62	24.2	23.64	51.54	8	0.86
3373	FRO14-0398	448	452.5	115220	0.63	18.8	22.44	58.13	8	0.47
3373	FRO14-0399	453.5	455.5	111220	0.6	15.9	23.65	59.85	8	0.68
3373	FRO14-0400	458.5	461.5	110220	0.59	20.9	21.2	57.31	4.5	0.56
3373	FRO14-0401	526.5	530.5	80220	0.61	22.3	20.66	56.43	3.5	0.48
3373	FRO14-0402	588	589.5		0.57	30	21	48.43	3	0.71
3374	FRO14-0454	113.81	115.71	149210	0.89	28.2	25.93	44.98	6.5	0.71
3374	FRO14-0455	149.99	153.01	149210	0.83	25.5	25.43	48.24	8	0.71
3374	FRO14-0456	155.19	156.19	140210	0.86	40.6	20.28	38.26	6	0.67
3374	FRO14-0457	179.7	181.99	142210	0.65	32.5	23.33	43.52	5.5	1.72
3374	FRO14-0458	202.1	207.71	131210	0.72	23.5	24.45	51.33	7.5	0.56
3374	FRO14-0459	209.49	212.01	130210	0.67	15.1	26.53	57.7	8	0.53
3374	FRO14-0460	288.71	291.5	121210	0.72	32	24.27	43.01	7.5	0.65
3374	FRO14-0461	292.7	295.8	120210	0.71	21	25.95	52.34	7.5	0.69
3374	FRO14-0462	302.11	303.7	122210	0.7	20.1	26.01	53.19	7.5	0.81
3374	FRO14-0463	320.9	323.3	111210	0.68	39.7	21.25	38.37	6.5	0.76
3374	FRO14-0464	345	347.59	121220	0.73	19.8	24.59	54.88	7.5	0.53
3374	FRO14-0465	348.91	350.11	120220	0.76	27.8	22.98	48.46	7.5	0.61
3374	FRO14-0466	404.61	408.49	115220	0.69	13.6	23.54	62.17	7.5	0.48
3374	FRO14-0467	409.8	411.7	111220	0.61	17.9	23.94	57.55	8	0.7
3374	FRO14-0468	413.49	417.7	110220	0.55	25.2	20.64	53.61	7	0.53
3374	FRO14-0469	454.81	455.71	90220	0.54	32.8	18.73	47.93	4	0.68
3374	FRO14-0470	459	461.01	92220	0.48	23.9	19.6	56.02	4.5	0.64
3374	FRO14-0471	487.59	492.51	80220	0.48	24.6	20.39	54.53	4.5	0.47
3374	FRO14-0472	543.99	545.19	71220	0.47	32.2	17.61	49.72	3.5	0.68
3374	FRO14-0473	591.01	595.01	70220	0.42	21.5	19.29	58.79	5.5	0.54
3375	FRO14-0528	109.2	110.79	170210	0.43	27.5	28.4	43.67	6.5	0.51
3375	FRO14-0529	205.59	208.29	141210	0.42	15.6	28.05	55.93	8	0.82
3375	FRO14-0530	216.7	219.6	142210	0.47	31.2	23.51	44.82	7	0.79
3375	FRO14-0531	241.41	247.19	130210	0.53	27.3	24.51	47.66	7.5	0.5
3375	FRO14-0532	349.91	359.4	120210	0.48	29.5	23.65	46.37	7.5	0.68
3375	FRO14-0533	461.01	464.11	115220	0.52	21.4	23.07	55.01	8	0.51
3375	FRO14-0534	485.89	490.1	110220	0.4	21.1	21.05	57.45	7	0.59
3375	FRO14-0535	546	547.4	92220	0.36	33.8	17.72	48.12	1	0.57
3375	FRO14-0536	580.6	585.99	80220	0.42	28.1	19.64	51.84	3	0.44
3376	FRO14-0474	135.31	143.21	131210	0.68	26.6	26.15	46.57	7.5	0.76
3376	FRO14-0475	152.4	153.29	130210	0.64	31.8	23.68	43.88	7.5	0.67

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3376	FRO14-0476	172.41	176.99	120210	0.68	23.8	24.39	51.13	8	0.51
3376	FRO14-0477	233.79	238.7	110210	0.6	21.6	26.78	51.02	6	0.42
3376	FRO14-0478	319	326.99	131220	0.56	34.8	23.73	40.91	6.5	0.65
3376	FRO14-0479	372.89	377.39	120220	0.65	28.7	22.3	48.35	8	0.52
3376	FRO14-0480	419.6	424.8	115220	0.68	26.3	22.15	50.87	8	0.6
3376	FRO14-0481	480.61	481.9	90220	0.51	17	20.68	61.81	7	0.72
3376	FRO14-0482	507.61	513	80220	0.51	21.4	20.19	57.9	3.5	0.46
3376	FRO14-0483	558.9	559.8	71220	0.49	37.9	17.16	44.45	1	0.51
3376	FRO14-0484	319	321.66	131220	0.58	47	21.78	30.64	6	0.54
3376	FRO14-0485	322.73	326.99	131220	0.7	21.9	25.76	51.64	8	0.77
3377	FRO14-0537	200.7	201.69	199220	0.59	22.5	28.19	48.72	7.5	0.58
3377	FRO14-0538	215.39	217.3	141220	0.65	19.7	29.78	49.87	8	0.58
3377	FRO14-0539	276.09	277.9	149220	0.55	26	27.21	46.24	5.5	0.5
3377	FRO14-0540	340.01	347.2	130220	0.68	21	25.33	52.99	8	0.58
3377	FRO14-0541	354.59	355.6	199220	0.45	18.2	25.26	56.09	7.5	0.8
3377	FRO14-0542	412.4	415.21	120220	0.48	10.7	27.23	61.59	8.5	0.69
3377	FRO14-0543	472.59	480.6	115220	0.44	19.7	21.82	58.04	6.5	0.62
3377	FRO14-0544	492.81	494.8	110220	0.38	23.6	19.74	56.28	4	0.62
3377	FRO14-0545	504.09	505.21	112220	0.38	33.2	19.83	46.59	7.5	0.75
3377	FRO14-0546	518.19	519.7	90220	0.5	30.1	19.35	50.05	7	0.65
3377	FRO14-0547	522.2	524.01	92220	0.52	19.6	19.95	59.93	5	0.64
3377	FRO14-0548	561.01	565.4	80220	0.52	33.5	17.06	48.92	2.5	0.52
3378	FRO14-0427	88.2	89.49	200210	0.56	25.2	29.12	45.12	1.5	0.58
3378	FRO14-0428	376.3	378.2	141220	0.91	21.9	29.19	48	7.5	0.57
3378	FRO14-0429	433.2	434.99	149220	0.76	24.4	27.14	47.7	7.5	0.44
3378	FRO14-0430	496	502.5	131220	0.76	28.2	24.75	46.29	7.5	0.62
3378	FRO14-0431	506.61	507.81	130220	0.82	25.8	24.19	49.19	7.5	0.64
3378	FRO14-0432	535.59	537.79	120220	0.75	38	23.13	38.12	7.5	1.63
3378	FRO14-0433	575.4	578	111220	0.78	20.1	25.16	53.96	8	0.54
3379	FRO14-0500	54.89	56.21	180210	0.63	22	30.82	46.55	7.5	0.66
3379	FRO14-0501	423.99	424.8	140220	0.44	35.7	24.23	39.63	7.5	0.46
3379	FRO14-0502	491.7	498.2	131220	0.45	34.1	22.05	43.4	7	0.64
3379	FRO14-0503	491.7	495.7	131220	0.48	34.2	22.74	42.58	6.5	0.66
3379	FRO14-0504	496.7	498.2	131220	0.46	18.5	25.54	55.5	8	0.7
3379	FRO14-0505	499.21	500.49	130220	0.4	27.3	22.59	49.71	7.5	0.65
3379	FRO14-0506	564.99	568.01	120220	0.37	24.6	23.34	51.69	8.5	0.55
3380	FRO14-0584	97.99	105.61	131210	0.66	28.7	24.57	46.07	8	0.75
3380	FRO14-0585	136.02	140	120210	0.57	24.9	24.18	50.35	8	0.5
3380	FRO14-0586	197.03	199.81	110210	0.55	29	25.35	45.1	6	0.37
3380	FRO14-0587	285.05	288.52	131220	0.5	27.7	24.54	47.26	7.5	0.75
3380	FRO14-0588	289.7	294	130220	0.51	24.5	25.61	49.38	8	0.77
3380	FRO14-0589	344.82	349.02	120220	0.48	17.4	24.94	57.18	8.5	0.6
3380	FRO14-0590	384.41	388.81	115220	0.65	23.8	21.57	53.98	7	0.52
3380	FRO14-0591	399.9	402	110220	0.55	23.5	20.55	55.4	2.5	0.62

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3380	FRO14-0592	421.32	422.6	112220	0.52	36.7	18.77	44.01	7.5	1.05
3380	FRO14-0593	466.27	468.21	90220	0.43	26.6	19.18	53.79	3.5	0.7
3380	FRO14-0594	490.4	495.5	80220	0.61	20.1	19.26	60.03	2	0.46
3380	FRO14-0595	581.6	584.34	70220	0.31	24.6	21.98	53.11	5.5	0.46
3380	FRO14-0596	97.99	102.09	131210	0.47	22.6	26.56	50.37	8.5	0.81
3380	FRO14-0597	103.27	105.61	131210	0.57	25.3	25.85	48.28	8	0.68
3382	FRO14-0346	235.21	235.79	150210	1.08	25.2	28.87	44.85	7	0.6
3382	FRO14-0347	324.72	326.4	141220	0.9	20.3	29.49	49.31	8.5	0.62
3382	FRO14-0348	360.81	362.91	149220	0.88	11.3	29.04	58.78	7.5	0.5
3382	FRO14-0349	367.21	369.5	140220	0.77	24.7	30.27	44.26	6.5	0.38
3382	FRO14-0350	407.92	408.71	142220	0.74	35.6	22.68	40.98	7	0.6
3382	FRO14-0351	447.51	451.3	131220	0.75	33.1	21.82	44.33	7.5	0.64
3382	FRO14-0352	452.41	456.68	130220	0.71	34.7	21.18	43.41	7	0.6
3382	FRO14-0353	491.69	495.19	121220	0.72	27.6	22.29	49.39	7.5	0.61
3382	FRO14-0354	498.91	501.91	120220	0.72	18	25.27	56.01	8	0.65
3382	FRO14-0355	540.61	549.01	110220	0.68	14.2	24.59	60.53	8.5	0.54
3382	FRO14-0356	566.71	568.02	90220	0.63	30.6	18.68	50.09	4	0.89
3383	FRO14-0380	183.5	184.5	150220	0.97	12.8	32.67	53.56	8.5	0.73
3383	FRO14-0381	275.5	277	141220	0.89	12	31.33	55.78	8	0.53
3383	FRO14-0382	275.5	277	141220	0.89	12	31.33	55.78	8	0.53
3383	FRO14-0383	279.5	280.5	199220	0.81	10.2	31.18	57.81	8	0.76
3383	FRO14-0384	315.5	318	149220	0.86	11.3	28.85	58.99	7.5	0.52
3383	FRO14-0385	321	323	140220	0.77	15.9	30.42	52.91	8.5	0.42
3383	FRO14-0386	410	412.5	130220	0.79	29.8	22.24	47.17	7.5	0.65
3383	FRO14-0387	445	447	121220	0.73	9.8	25.72	63.75	8	0.73
3383	FRO14-0388	448.5	450	120220	0.77	30.8	20.49	47.94	7.5	0.54
3383	FRO14-0389	509.5	513.5	110220	0.76	25.7	21.69	51.85	7	0.59
3383	FRO14-0390	538.5	540.5	90220	0.65	35.8	18.45	45.1	3.5	0.76
3383	FRO14-0391	565.5	566.5	80220	0.51	41.1	18.19	40.2	5.5	0.72
3383	FRO14-0403	361	362	142220	0.76	30.1	23.53	45.61	8	0.6
3383	FRO14-0404	400.5	408.5	131220	0.76	29.3	22.83	47.11	7.5	0.63
3384	FRO14-0405	200.81	202.21	141220	0.74	17.1	33.49	48.67	7	0.55
3384	FRO14-0406	232.03	234.2	149220	0.92	9	28.5	61.58	6	0.52
3384	FRO14-0407	236.49	238.89	140220	0.78	19.5	28.86	50.86	7.5	0.41
3384	FRO14-0408	323.89	329.71	131220	0.73	24.7	23.59	50.98	7.5	0.71
3384	FRO14-0409	343.88	345.67	120220	0.7	15.3	25.59	58.41	7.5	0.78
3384	FRO14-0410	363.49	367.07	110220	0.74	15	24.73	59.53	8	0.61
3384	FRO14-0411	394.22	395.63	114220	0.67	13	25.76	60.57	8.5	0.65
3384	FRO14-0412	423.01	423.7	92220	0.52	34.5	20.54	44.44	7.5	0.66
3384	FRO14-0413	431.81	441.79	110220	0.69	14.3	24.01	61	7.5	0.56
3384	FRO14-0414	470.01	471.8	90220	0.59	19.7	20.15	59.56	3	0.63
3385	FRO14-0562	170.51	172.19	150210	0.61	32.6	22.56	44.23	1	0.44
3385	FRO14-0563	275.48	277.78	150220	0.72	24.9	27.07	47.31	6	0.62
3385	FRO14-0564	355.6	357.39	141220	0.57	17.5	29.22	52.71	8.5	0.59

Hole ID #	Composite #	From (m)	To (m)	Seam	Raw Analysis					
					R.M.	Ash	V.M.	F.C.	FSI	%S
3385	FRO14-0565	398.2	399.23	149220	0.48	16.2	28.31	55.01	8.5	0.82
3385	FRO14-0566	409.41	411.99	140220	0.39	29.7	26.38	43.53	7.5	0.41
3385	FRO14-0567	482.41	489.08	131220	0.41	26.6	23.98	49.01	7.5	0.63
3385	FRO14-0568	490.19	491.51	130220	0.45	28.2	22.88	48.47	8	0.62
3385	FRO14-0569	514.9	515.79	199220	0.38	20.5	29.57	49.55	8.5	2.26
3385	FRO14-0570	533.21	533.89	121220	0.43	32.5	20.6	46.47	5	0.63
3385	FRO14-0571	537.69	541.32	120220	0.44	19.7	24.6	55.26	8.5	0.55
3386	FRO14-0549	190.91	193.21	150210	0.79	25.7	25.47	48.04	5	0.5
3386	FRO14-0550	274.02	275	170220	0.63	36.8	26.4	36.17	7	0.64
3386	FRO14-0551	319.09	321.39	150220	0.49	43.5	22.65	33.36	6.5	0.68
3386	FRO14-0552	342.52	343.8	199220	0.56	35.6	23.79	40.05	7	0.53
3386	FRO14-0553	363.3	365.22	141220	0.54	26	27.05	46.41	8	0.58
3386	FRO14-0554	406.88	407.49	199220	0.46	31.7	25.36	42.48	8	0.72
3386	FRO14-0555	420.72	423.04	149220	0.62	11.3	29.99	58.09	8	0.45
3386	FRO14-0556	487.53	494.32	131220	0.58	25.8	25.63	47.99	8	0.63
3386	FRO14-0557	487.53	490.93	131220	0.6	23	26.24	50.16	7.5	0.69
3386	FRO14-0558	492.06	494.32	131220	0.54	18.2	27.68	53.58	8.5	0.68
3386	FRO14-0559	495.82	497	130220	0.54	35.9	20.63	42.93	6.5	0.59
3386	FRO14-0560	548.89	552.11	120220	0.52	14	26.7	58.78	8.5	0.55
3386	FRO14-0561	567.7	568.59	124220	0.53	32.7	21.69	45.08	8	0.85

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	Field Days (list actual days)	Days	Rate	Subtotal*	
Silenus, Forestry Technician	April 23 2014 - August 8 2014		\$0.00	\$123,573.19	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
				\$123,573.19	\$123,573.19
Office Studies	List Personnel (note - Office only, do not include field days)				
Literature search			\$0.00	\$0.00	
Database compilation			\$0.00	\$0.00	
Computer modelling			\$0.00	\$0.00	
Reprocessing of data			\$0.00	\$0.00	
General research			\$0.00	\$0.00	
Report preparation			\$0.00	\$0.00	
Other (specify)				\$0.00	
				\$0.00	\$0.00
Airborne Exploration Surveys	Line Kilometres / Enter total invoiced amount				
Aeromagnetics			\$0.00	\$0.00	
Radiometrics			\$0.00	\$0.00	
Electromagnetics			\$0.00	\$0.00	
Gravity			\$0.00	\$0.00	
Digital terrain modelling			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	\$0.00
Remote Sensing	Area in Hectares / Enter total invoiced amount or list personnel				
Aerial photography			\$0.00	\$0.00	
LANDSAT			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	\$0.00
Ground Exploration Surveys	Area in Hectares/List Personnel				
Geological mapping					
Regional			<i>note: expenditures here</i>		
Reconnaissance			<i>should be captured in Personnel</i>		
Prospect			<i>field expenditures above</i>		
Underground	Define by length and width				
Trenches	Define by length and width			\$0.00	\$0.00
Ground geophysics	Line Kilometres / Enter total amount invoiced list personnel				
Radiometrics					
Magnetics					
Gravity					
Digital terrain modelling					
Electromagnetics	<i>note: expenditures for your crew in the field</i>				
SP/AP/EP	<i>should be captured above in Personnel</i>				
IP	<i>field expenditures above</i>				
AMT/CSAMT					
Resistivity					
Complex resistivity					
Seismic reflection					
Seismic refraction					
Well logging	12,678 Meters			\$86,050.00	
Geophysical interpretation					
Petrophysics					

Other (specify)				\$86,050.00	\$86,050.00
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Drill (cuttings, core, etc.)			\$0.00	\$0.00	
Stream sediment			\$0.00	\$0.00	
Soil	<i>note: This is for assays or</i>		\$0.00	\$0.00	
Rock	<i>laboratory costs</i>		\$0.00	\$0.00	
Water			\$0.00	\$0.00	
Biogeochemistry			\$0.00	\$0.00	
Whole rock			\$0.00	\$0.00	
Petrology			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	\$0.00
Drilling	No. of Holes, Size of Core and Metres	No.	Rate	Subtotal	
Diamond			\$0.00	\$0.00	
Reverse circulation (RC)	21 holes, 12678 meters			\$1,349,235.16	
Rotary air blast (RAB)			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$1,349,235.16	\$1,349,235.16
Other Operations	Clarify	No.	Rate	Subtotal	
Trenching			\$0.00	\$0.00	
Bulk sampling			\$0.00	\$0.00	
Underground development			\$0.00	\$0.00	
Other (specify)	Road and Pad Construction			\$323,568.34	
				\$323,568.34	\$323,568.34
Reclamation	Clarify	No.	Rate	Subtotal	
After drilling			\$0.00	\$0.00	
Monitoring			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
Transportation		No.	Rate	Subtotal	
Airfare			\$0.00	\$0.00	
Taxi			\$0.00	\$0.00	
truck rental			\$0.00	\$0.00	
kilometers			\$0.00	\$0.00	
ATV			\$0.00	\$0.00	
fuel			\$0.00	\$0.00	
Helicopter (hours)			\$0.00	\$0.00	
Fuel (litres/hour)			\$0.00	\$0.00	
Other					
				\$0.00	\$0.00
Accommodation & Food	Rates per day				
Hotel			\$0.00	\$0.00	
Camp			\$0.00	\$0.00	
Meals	day rate or actual costs-specify		\$0.00	\$0.00	
				\$0.00	\$0.00
Miscellaneous					
Telephone			\$0.00	\$0.00	
Other (Specify)					
				\$0.00	\$0.00
Equipment Rentals					
Field Gear (Specify)			\$0.00	\$0.00	
Other (Specify)					
				\$0.00	\$0.00

Freight, rock samples					
			\$0.00	\$0.00	
			\$0.00	\$0.00	
				\$0.00	\$0.00
<i>TOTAL Expenditures</i>					\$1,882,426.69

Appendix E: Modeling Method and Parameters

Fording River uses 3D block models for all geology modeling. Reserves and resources in this report are based on the 3D model building procedure documented in SP&P EN.005.

The 3D block models are volumetric based: a TOPO model item stores the proportion of the model block existing below topography. Separate model items list up to three waste types and two coal seams per block (as either met or oxide). These items are stored as volumetric proportions: the sum of the waste and coal items equals the TOPO item. Additional model items (for each coal item) are: seam name, raw ash, raw SG, raw VM, delivered ash, delivered SG, plant yield, clean sulphur and clean phosphorous.

Table 1 lists the block model dimensions used for the various block models (units of measure are in meters).

Pit	X-direction	Y-direction	Z-direction
Eagle Mountain	20	20	15
Turnbull	10	20	15
Henretta	10	10	15
Castle	25	25	15
Swift	25	25	15

Table 1 - Model Block Dimensions

The 3D model is built from the valid (i.e. with clear hanging wall and footwall definition) drill intervals from the Acquire database. The seam dips and true thicknesses are calculated based on drilling data, and then seam polygons are generated. The true thicknesses of the seams are interpolated using an inverse distance weighting.

The search and weighting parameters are listed in Table 2.

MINING AREA	SEAM THICKNESS			QUALITY PARAMETERS (DASH, DSG)				QUALITY PARAMETERS (VM, S, PHOS)			
	Max. Number of Samples	Inverse Dist. Weighting	Search Dist. (m)	Inverse Dist. Weighting	X Search Dist. (m)	Y Search Dist. (m)	Z Search Dist. (m)	Inverse Dist. Weighting	X Search Dist. (m)	Y Search Dist. (m)	Z Search Dist. (m)
Eagle Mtn	1	2.1	1,000	1.2	800	600	800	1.5	800	600	800
Turnbull	1	2.1	1,800	1.2	800	600	800	1.2	800	600	800
Henretta	1	1.8	500	1.5	800	600	800	1.5	800	600	800
Castle	1	2.2	2,000	1.2	2,800	2,800	1,000	1.5	2,800	2,800	1,000
Swift	1	2.1	2,700	1.2	1,800	1,800	1,000	1.5	1,800	1,800	1,800

Table 2 - Interpolation and Search Parameters

The quality parameter search distances in the X, Y, and Z directions in Eagle, Turnbull, and Henretta were decreased compared to those used in 2011 models. The changes were made to align with the distances (600 and 800 m) used to determine speculative coal (see Table 3 below). The quality search parameter distances for Castle and Swift will change to be more in line with the other mining areas when the next models are produced.

Due to the low coal recoveries experienced in areas immediately adjacent to major fault zones and when mining thin seams, the following recovery factors were determined from reconciliation data and added to the 2013 and 2014 Turnbull R&R block models:

- 45% volume discount to coal within 25m of the two major regional thrust faults in Eagle
- 45% volume discount to coal 25m above the regional Ewin Pass thrust fault in Turnbull
- 10% volume discount to coal 25 m below the regional Ewin Pass thrust fault in Turnbull
- 20% volume discount to all seams between 0.90m and 1.10m true thickness
- 10% volume discount to all seams between 1.11m and 1.50m true thickness

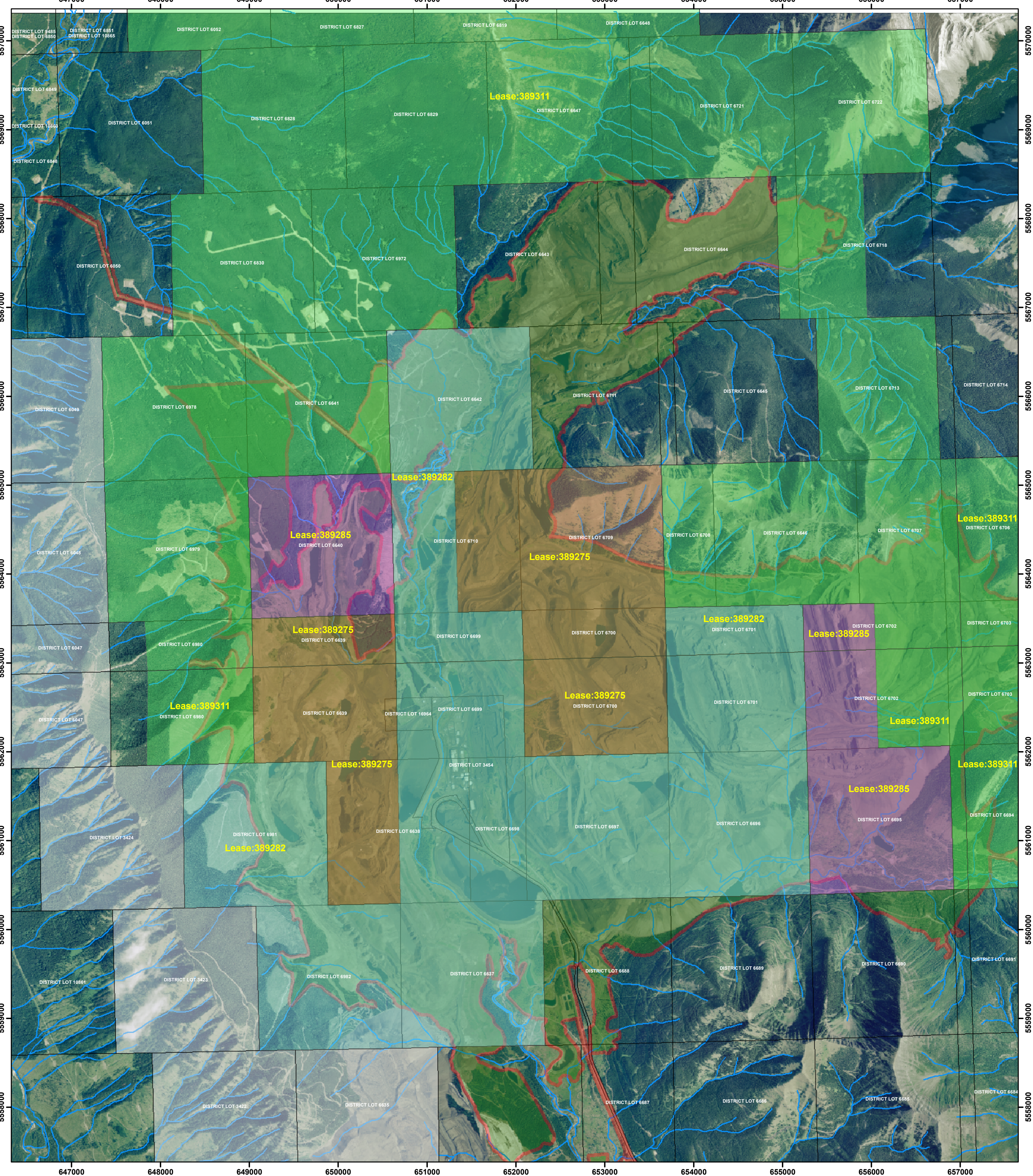
The next modeling step is the classification of modeled coal volumes as Measured, Indicated, Inferred, or Speculative resource. Each modeled block is assigned one of the categories, based on an assessment of the drill hole spacing between and along sections, as per suggested in GSC paper 88-21 guidelines for complex geology.

The criterion used to assign coal blocks to the appropriate category is listed in the following table.

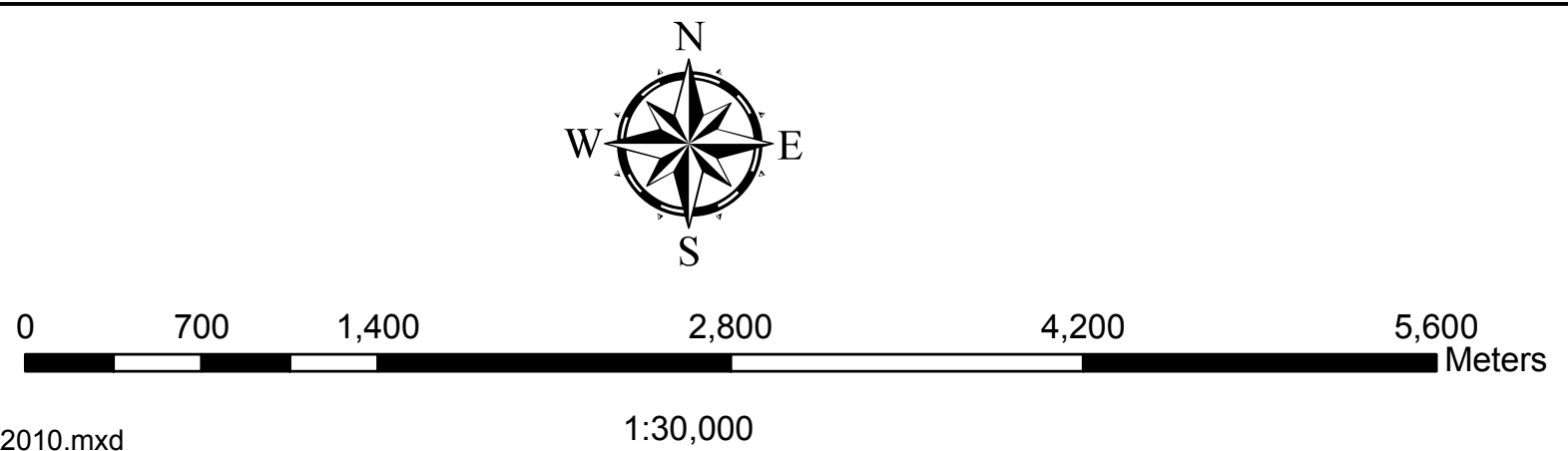
Category	Model Block Distance to nearest 3 data points along strike direction(meters)	Model Block Distance to nearest 3 data points along dip direction(meters)
Measured	< 150	< 200
Indicated	150 to 300	200 to 400
Inferred	300 to 600	400 to 800
Speculative	> 600	> 800

Table 3 - Resource Category Criteria

These classifications have also been applied to the stated reserves where the measured category equals proven reserves, and the indicated category is equivalent to probable reserves with exceptions as outlined in the reserve section.



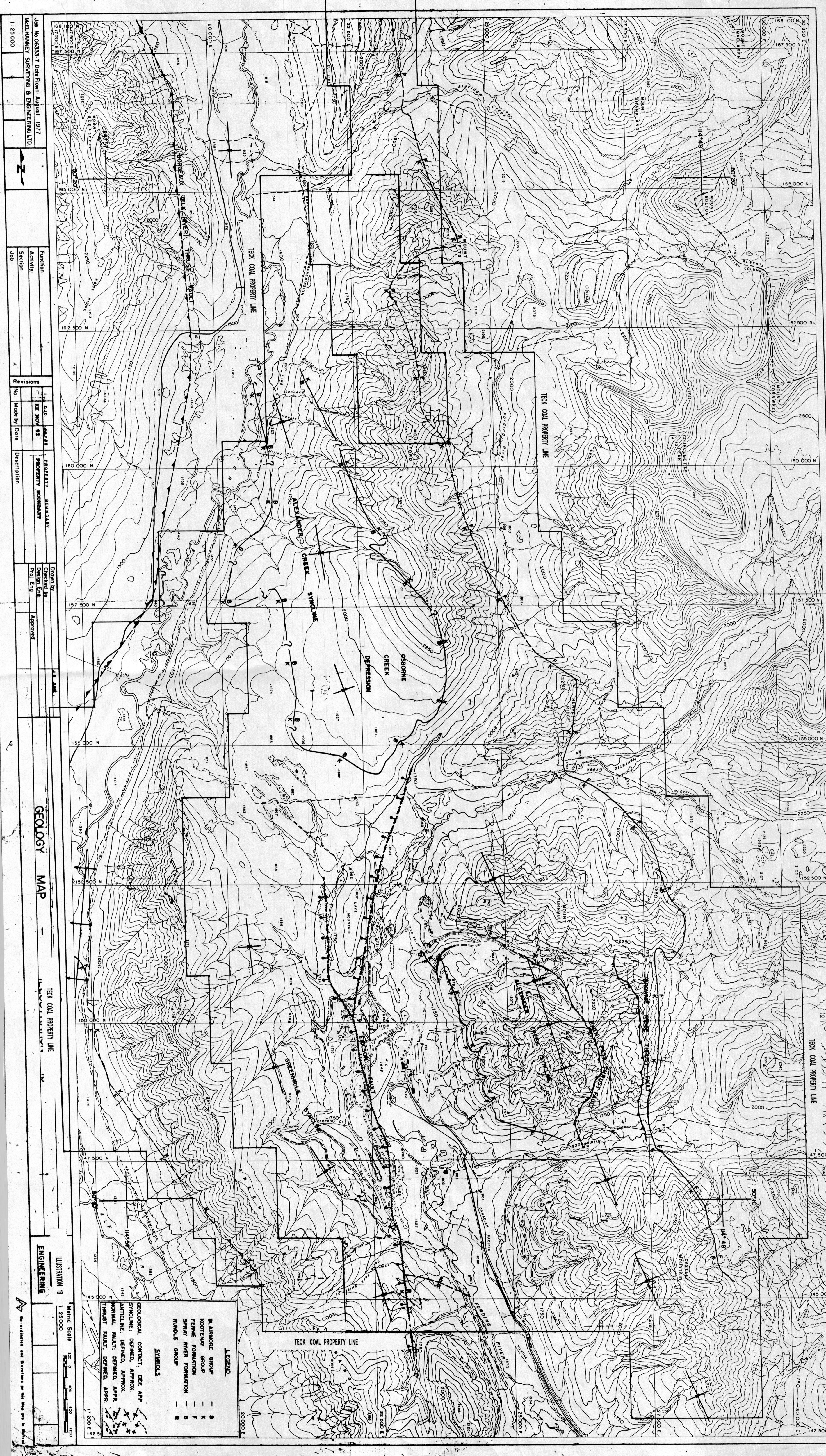
Fording River Operations
 Projection: UTM NAD 83 Zone 11
 Date: Feb 3, 2010
 Path: S:\Environmental\TeamFiles\GIS\NoticeofWork2010.mxd



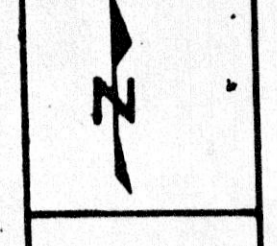
Legend

Coal Lease

	389275
	389282
	389285
	389311



JOB No. 06333-7 Date From: August 1977
 MCELHANEY SURVEYING & ENGINEERING LTD
 1:25,000



Function	Activity	Section	Job
PROPERTY BOUNDARY	PROPERTY BOUNDARY		

Revisions	No.	Made By	Date	Description
	1	RE MOY	93	PROPERTY BOUNDARY

Drawn by	Checked by	Approved
DRM/EN	DRM/EN	

GEOLOGY MAP
 TECK COAL PROPERTY LINE
 ILLUSTRATION B
 METRIC SCALE
 1:25,000

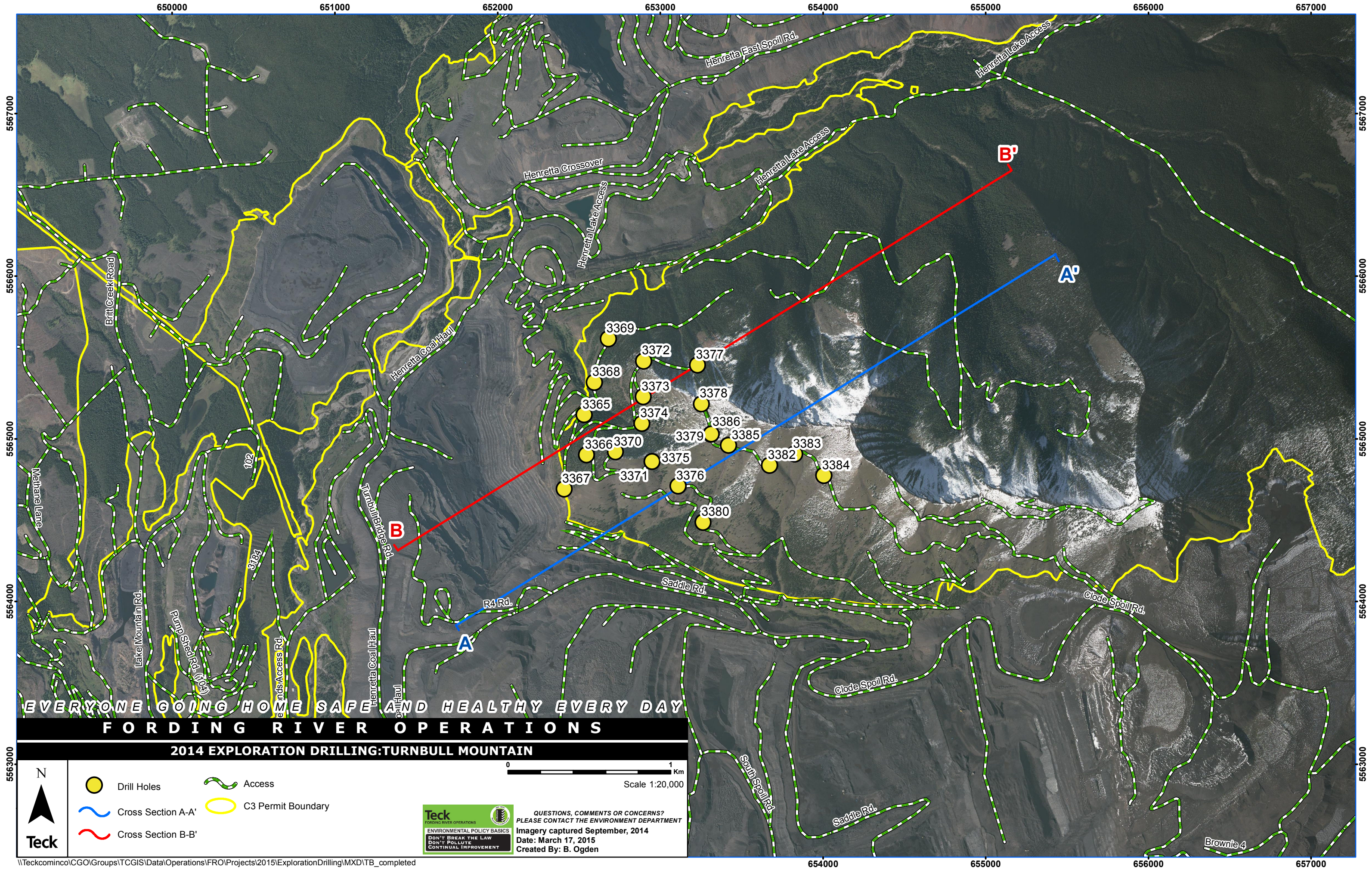
ENGINEERS
 MCELHANEY SURVEYING & ENGINEERING LTD

LEGEND

MAINROBE GROUP	—	DEF. APP.
ROOSTINAW GROUP	—	DEF. APPROX.
FENNIE FORMATION	—	DEF. APPROX.
SPRAY RIVER FORMATION	—	DEF. APPROX.
RAMBLE GROUP	—	DEF. APPROX.

SYMBOLS

▲	GEOLOGICAL CONTACT, DEF. APP.
▲	ANTICLINE, DEFINED, APPROX.
▲	NORMAL FAULT, DEFINED, APPROX.
▲	THrust FAULT, DEFINED, APPROX.

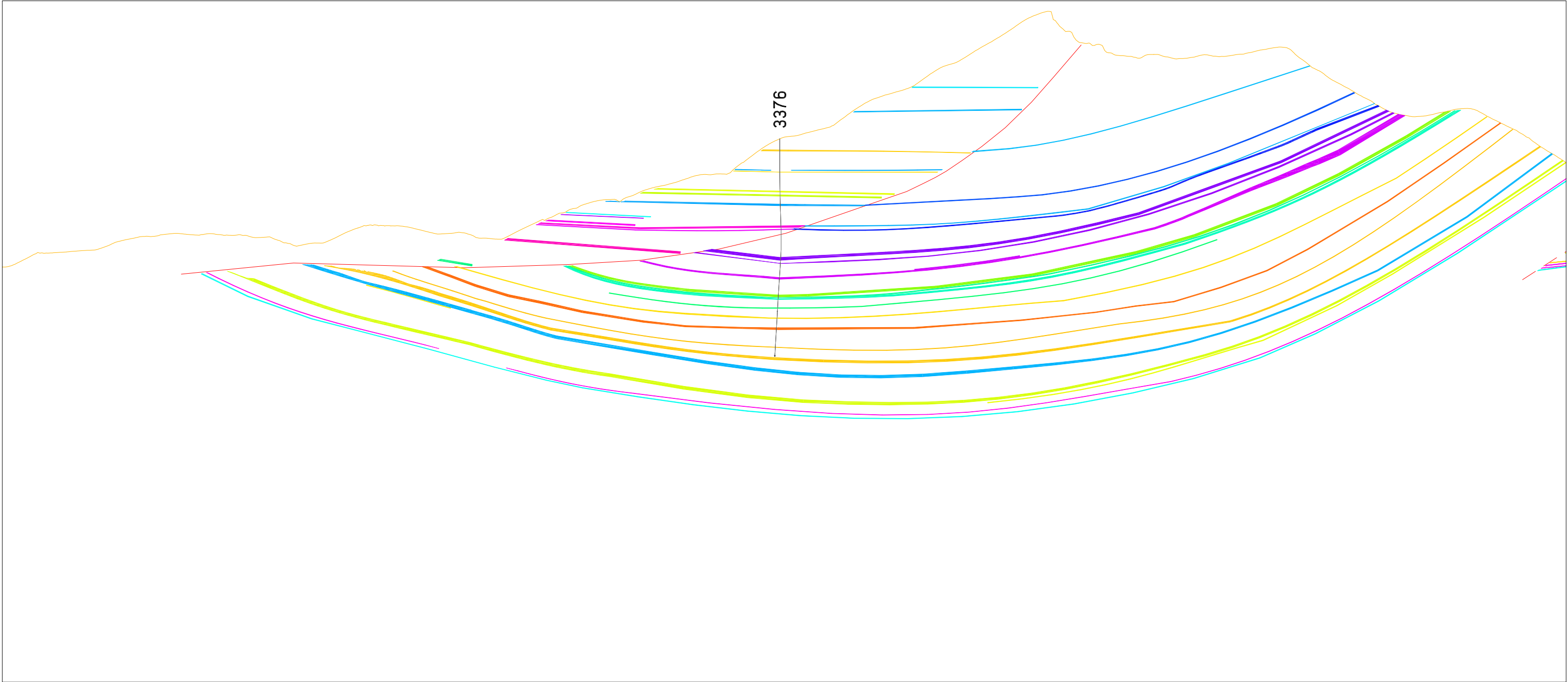


EVERYONE GOING HOME SAFE AND HEALTHY EVERY DAY
 FORDING RIVER OPERATIONS

2014 EXPLORATION DRILLING: TURNBULL MOUNTAIN

<p>N</p> <p>Teck</p>	<ul style="list-style-type: none"> Drill Holes Cross Section A-A' Cross Section B-B' Access C3 Permit Boundary 	<p>0 1 Km</p> <p>Scale 1:20,000</p> <p>FORDING RIVER OPERATIONS ENVIRONMENTAL POLICY BASICS DON'T BREAK THE LAW DON'T POLLUTE CONTINUAL IMPROVEMENT</p> <p>QUESTIONS, COMMENTS OR CONCERNS? PLEASE CONTACT THE ENVIRONMENT DEPARTMENT Imagery captured September, 2014 Date: March 17, 2015 Created By: B. Ogden</p>
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Brownie 4



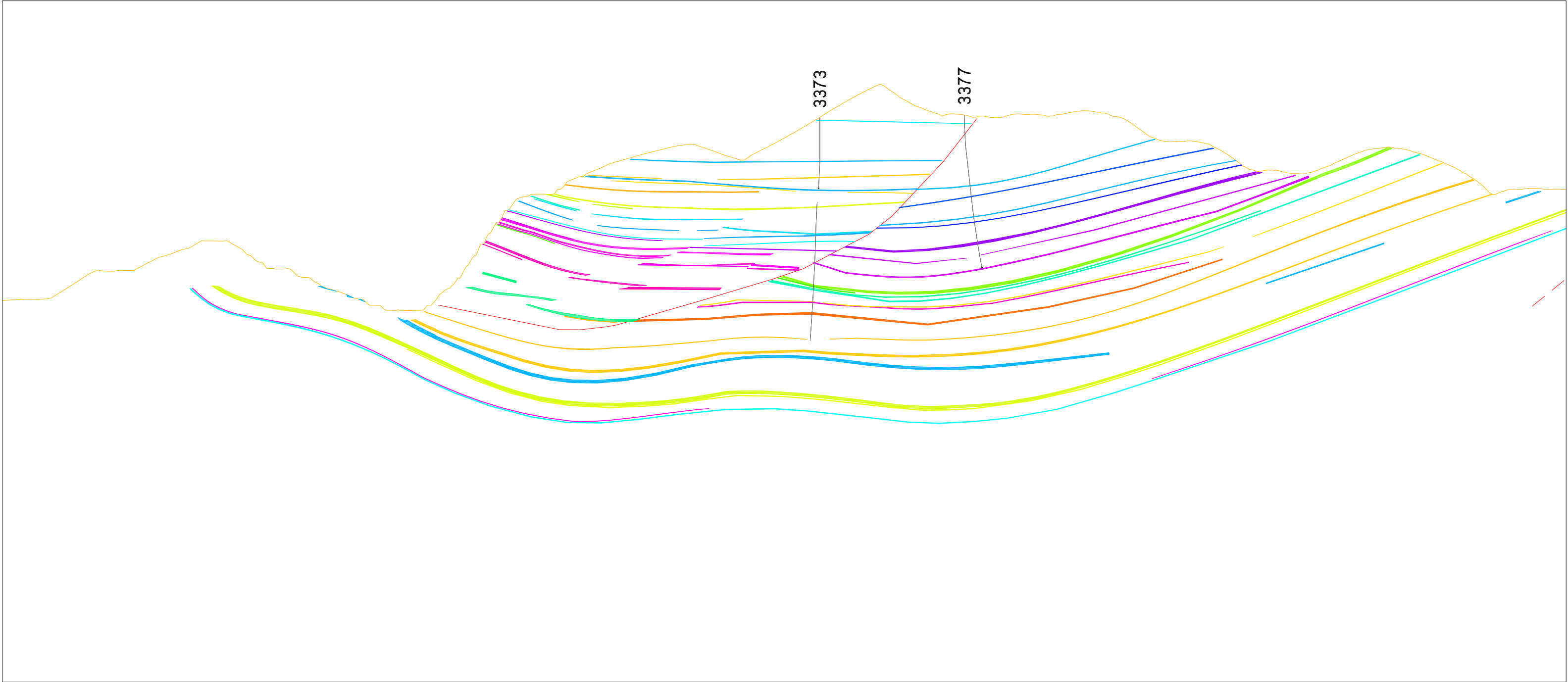
Coal Seams

- 160210
- 140210
- 1130210
- 120210
- 1100210
- 900210
- 70210
- 50210
- 40210
- 150220
- 140220
- 1300220
- 120220
- 110220
- 90220
- 70220
- 60220
- 40220
- 10220



PROJECT:	Turnbull Exploration 2014
DATE:	2015/04/07
SECTION:	A - A'
CREATED BY:	Colin Chapman





Coal Seams

- 160210
- 140210
- 1130210
- 120210
- 1100210
- 900210
- 70210
- 50210
- 40210
- 150220
- 140220
- 1300220
- 120220
- 110220
- 90220
- 70220
- 60220
- 40220
- 10220



PROJECT:	Turnbull Exploration 2014
DATE:	2015/04/07
SECTION:	B - B'
CREATED BY:	Colin Chapman

