

BC Geological Survey  
Coal Assessment Report  
1026



## COAL ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT:** Assessment Report: 2016 Michel Head Exploration Program

**TOTAL COST:** \$622,782

**AUTHOR(S):** Dave Thompson, P.Geo.

**SIGNATURE(S):**

*Dave Thompson*

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):**

**Mines Act Permit CX-5-018, Approval #13-1630658-0625, issued June 25, 2013**

**YEAR OF WORK:** 2016

**PROPERTY NAME:** Michel Creek Coking Coal Project: Michel Head Property

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

**Coal Licence #418317**

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:**

**MINING DIVISION:** Fort Steele

**NTS / BCGS:** 82G

**LATITUDE:** 49° 30' 30"

**LONGITUDE:** 114° 43' 00" (at centre of work)

**UTM Zone:** NAD83 11 **EASTING:** 665000 **NORTHING:** 5486500

**OWNER(S):** CanAus Coal Ltd.

**MAILING ADDRESS:** 5000 HWY 43, Sparwood, BC V0B 2G1

**OPERATOR(S) [who paid for the work]:** CanAus Coal Ltd.

**MAILING ADDRESS:** 5000 HWY 43, Sparwood, BC V0B 2G1

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

Jurassic, Cretaceous, Mist Mountain Formation, Coal

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:**

Assessment Report: 2014 Michel Head Exploration Program

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	13 holes	
	Gamma, Resistivity,	616m	418317
	Resistivity	616m	418317
	Caliper	616m	418317
	Deviation	616m	418317
	Dip		
	Others (specify)		
DRILLING			
13	Core	616m	418317
	Non-Core	0	418317
SAMPLING AND ANALYSES			
17	Proximate	2 seams + blend	418317
17	Ultimate	2 seams + blend	418317
5	Petrographic	2 seams + blend	418317
5	Vitrinite reflectance	2 seams + blend	418317
2	Coking	1 seam + blend	418317
17	Wash tests	2 seams + blend	418317
PROSPECTING (scale/area)			
PREPARATORY/PHYSICAL			
Line/grid (km)			
Trench (number, metres)			
Bulk sample(s)			

Part of Section 1, all of Section 6, and Appendix D 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](http://www.bclaws.ca/civix/document/id/complete/statreg/251_2004)

## ***ASSESSMENT REPORT***

### ***2016 Michel Head Exploration Program***



***Owner and Operator: CanAus Coal Ltd.***

***Authorship: Dave Thompson, P.Geo.***

Chief Geologist, CanAus Coal Ltd.



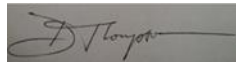
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CX-5-018, Approval #13-1630658-0625, issued June 25, 2013

**YEAR OF WORK:** 2016

**PROPERTY NAME:** Michel Creek Coking Coal Project, Michel Head Property

**CLAIM NAME(S) (on which work was done):** Coal Licence #418317

**COMMODITIES SOUGHT:** Coal

**MINING DIVISION:** FORT STEELE

**NTS / BCGS:** 82G/10E and 7E

**LATITUDE:** 49° 30' 30" N

**LONGITUDE:** 114° 43' 00" W (at centre of work)

**UTM Zone:** 11 **EASTING:** 665,000m **NORTHING:** 5,486,500m

**OWNER(S):** CanAus Coal Limited

**MAILING ADDRESS:** #5000 Hwy 43, Sparwood, BC V0B 2G1

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

**REPORT KEYWORDS:** Jurassic/Cretaceous, Mist Mountain Formation, Coal

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT**

**NUMBERS:** Assessment Report: 2014 Michel Head Exploration Program

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Appendix E	Analytical and Processing Guidelines
Appendix F	Statement of Costs

# 1 Introduction and Summary

This report describes the exploration work conducted on the Michel Head property owned by CanAus Coal Ltd. (CanAus) in the Michel Creek area near Sparwood, BC (Figure 1.1).

The Michel Head property was geologically mapped by Kaiser Resources in 1972. No known coal exploration drilling was undertaken, although one historical drillhole casing was located on the property.

In 2013, exploration conducted by CanAus on Michel Head included 23 reverse circulation holes and two large diameter core holes. Samples were taken during the reverse circulation geology drilling which were used to map coal seam rank variability. The large diameter core was analyzed for detailed washability and coking coal characteristics. [REDACTED]

[REDACTED]

[REDACTED]

The 2014 Exploration Program on Michel Head fulfilled the requirements of a pre-feasibility study and included 15 reverse circulation holes, four large diameter core holes (as well as two pilot holes for coring), and four HQ3 core holes. Coal samples from the large diameter holes were analyzed for detailed sizing, washability and coking coal characteristics. [REDACTED]

[REDACTED]

[REDACTED]

The 2016 program included the collection of coal samples from 13 large diameter (15cm) core holes on Coal License 418317. Approximately 4320kg of coal was collected from the two main target seams: MH9 and MH10. The samples were processed in a pilot plant in Golden, Colorado and carbonized at Canmet Energy Labs in Ottawa, Ontario.

[REDACTED]

[REDACTED]

[REDACTED]



**Figure 1.1 Location Plan**



## 2 Property and Location

### 2.1 Ownership

Mineral rights are wholly owned by CanAus Coal Ltd. Surface rights are held by Jemi Fibre Corp. as part of their free-hold Tent Mountain Block 21. There are no oil and gas drilling activities on the property.

At this time there are no environmental liabilities identified on the property.

### 2.2 Property

The approximate centre point of the Michel Head property is 5,486,500N and 665,000E (UTM NAD 83). The Michel Head property, held by CanAus, represents one coal license, 418317 (Table 2.2.1). A location map shows information on the license (Figure 2.2.1).

**Table 2.2.1 Michel Head Property Coal License**

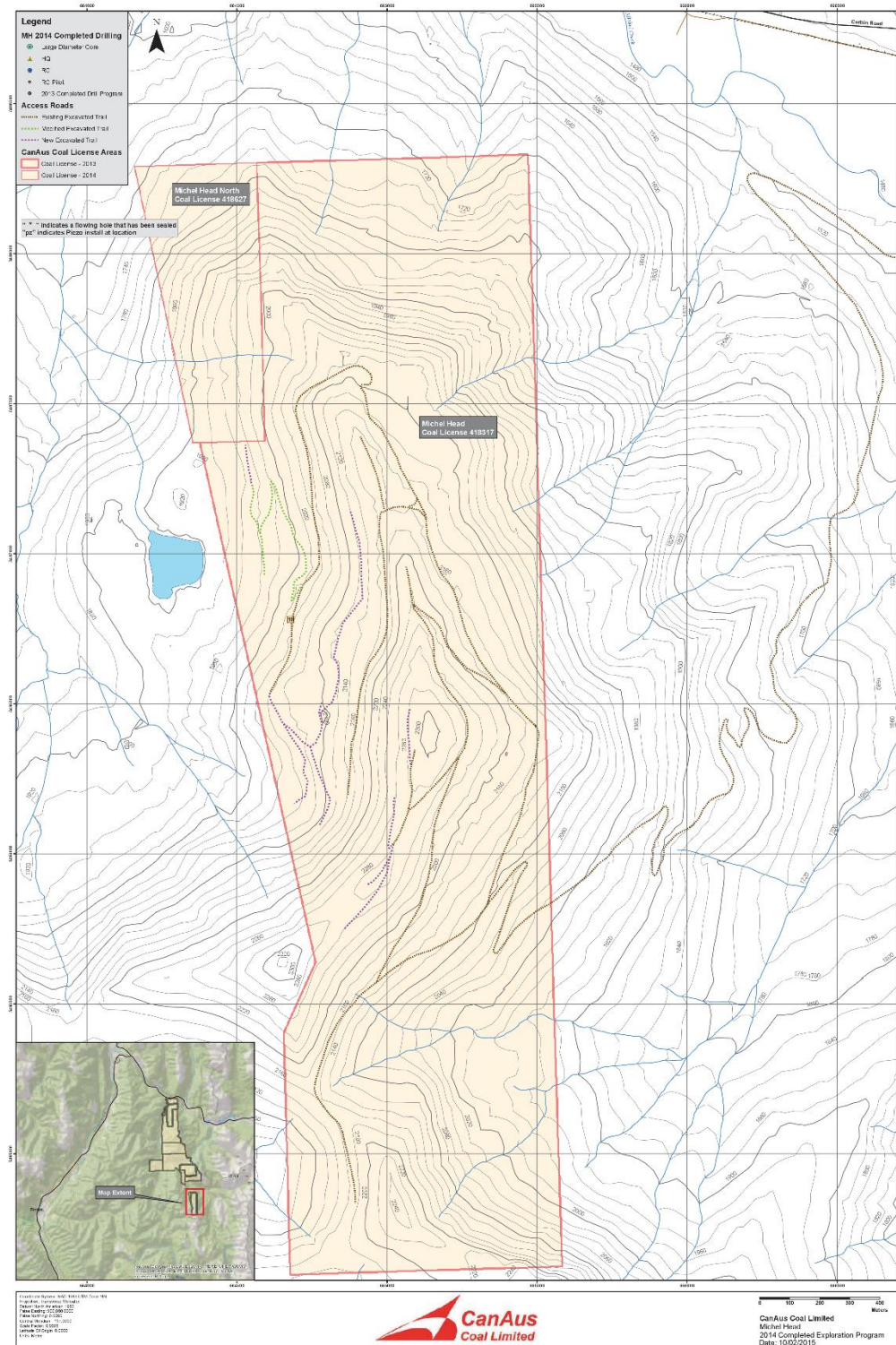
Coal Licence	Property Name	Approx. Area (ha)
418317	Michel Head	342
Total Area		<b>342</b>

The property is situated in the northwest trending Front Ranges of the Rocky Mountains physiographic region, which is characterized by a series of steep mountains running to the northwest, incised by west flowing streams. Figure 2.2.1 shows the Michel Head property as the light yellow area. Elevations range from ~1,400m along Michel Creek to a height of 2,300m on Michel Head. Michel Head has generally thin tree cover.

The Michel Head property is located 4km west of the Coal Mountain coal mine owned and operated by Teck Coal Ltd.

The climate is characterized by long, cold winters and short, cool to hot summers. In Sparwood, the temperature ranges from a record high of 39°C in the summer to a record low of -39.8°C in the winter, with a mean maximum in August of 23.6°C and a mean minimum in December of -11.6°C. Temperatures at the higher altitudes of the property would be slightly lower. The average amount of precipitation in Sparwood is 603mm with an equivalent of 248cm of that falling as snow.

Figure 2.2.1 – License Plan



## **2.3 Location and Access**

The Michel Creek Coking Coal Project is located southeast of the town of Sparwood in the Michel Creek valley, southeast British Columbia. Primary road access to the general area is via the Crowsnest Highway (Highway 3), which is an all-weather paved major highway connecting Sparwood with Fernie in the west and communities of the Crowsnest Pass in the east. The project area is accessed by driving east from Sparwood along Highway 3 for 11km and turning south onto Corbin Road. From Corbin Road, access to the Michel Head property is a further 19km south. A network of logging and exploration trails on the property are utilized for drilling access.

# **3 Program Overview**

## **3.1 Goals and Parameters**

The 2016 exploration program was intended to gather sufficient coal samples from Seams 9 and 10 (MH9, MH10) to evaluate the individual seam qualities as well as determine potential seam blend products through carbonization testing.

## **3.2 History**

Exploration in the Michel Creek area began in the late nineteenth century. The Crow's Nest Pass Coal Company began its operations in the area in 1897 and in 1908, mining at Coal Mountain, 4km east of the Michel Head Property. However, the first exploration documented in B.C. government assessment reports for the area was in 1971.

In 1972, Kaiser completed a program of road building, geological mapping and sampling in the area, which they called Taylor Mountain East, now called the Michel Head project area. In 1973, Kaiser continued the program to the south with the Taylor Mountain South program of road building, geological mapping and coal outcrop sampling. The 1970's work by Kaiser Resources on the Michel Head property, now held by CanAus, resulted in a preliminary resource estimate for this area indicating 30.1Mt.

In 2013, exploration conducted by CanAus on Michel Head included 23 reverse circulation drillholes, for a total of 2,932m and two large diameter (15cm) sonic core holes, for a total of 94.53m. These were the first recorded drillholes on the property. Samples were taken during the reverse circulation geology drilling which were used to map coal seam rank variability. The large diameter core was analyzed for detailed washability and coking coal characteristics. A 3D resource model was prepared and a resource estimate was calculated.



In 2014, 15 reverse circulation geology drillholes, 2 reverse circulation pilot drillholes for large diameter coring, 4 large diameter (15cm) core holes and 4 HQ3 (6.1cm) core holes were completed, to confirm and expand on the 2013 and historic data. A total of 3304m of drilling was completed, including 2511m of reverse circulation holes, 524m of HQ3 core holes and 269m of large diameter core holes.

No work was completed on the property in 2015.

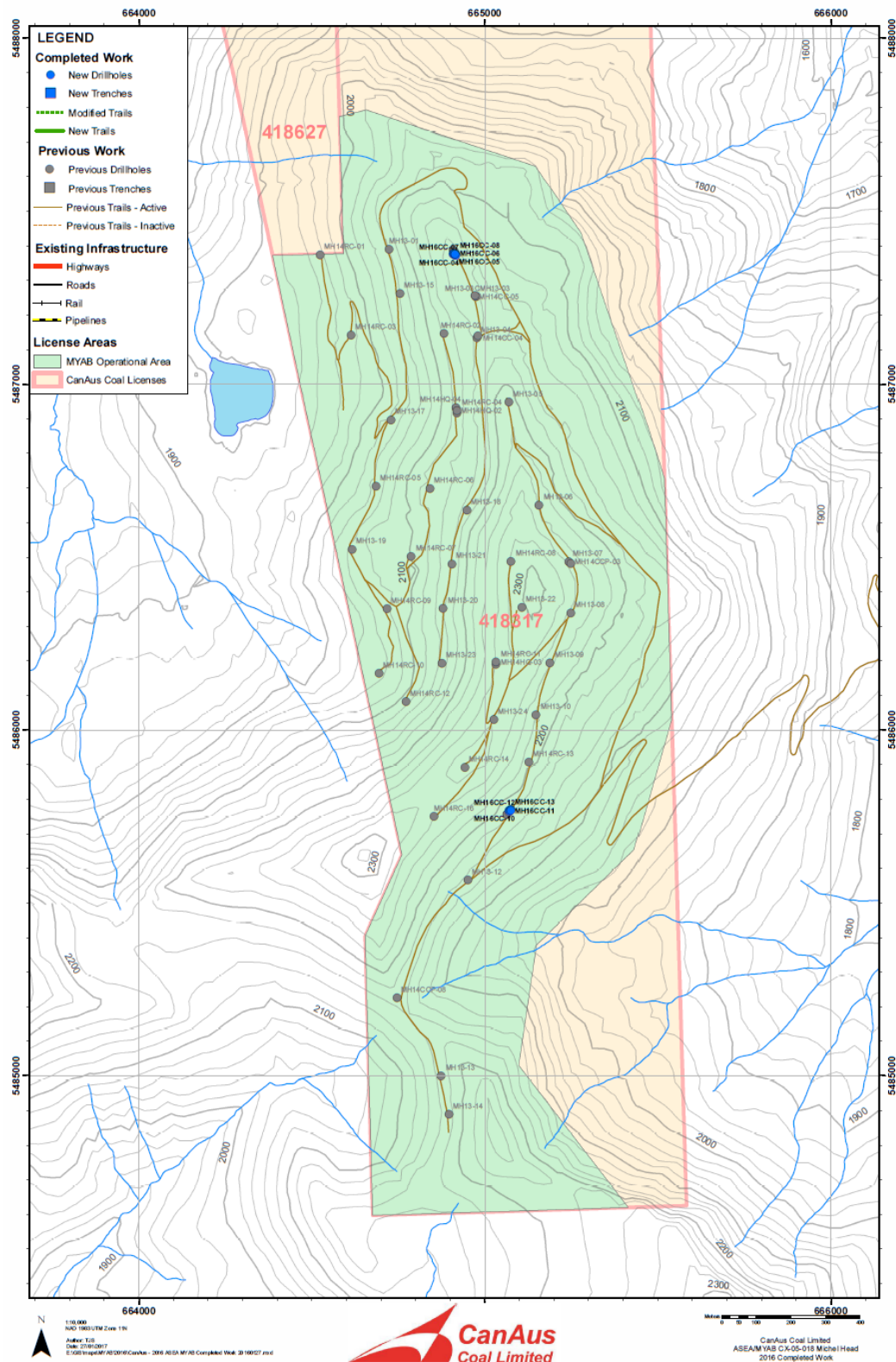
### **3.3 2016 Drilling**

In 2016, a total of 13 large diameter (15cm) core holes were completed on Coal License 418317 at two locations. The large diameter core holes were drilled to collect coal samples for carbonization testing. A total of 616m of drilling was completed (Figure 3.3.1 and Table 3.3.1).

All of the 2016 drill holes were geophysically logged with open-hole density and deviation tools.

All drill collars were surveyed with base-station corrected differential GPS equipment to centimetre-level accuracy.

Figure 3.3.1 Michel Head Exploration Plan



**Table 3.3.1 Drillhole Locations**

Hole ID	Type	Seam	Easting	Northing	Elevation	Depth	Azimuth	Dip
MH16CC-01	LDC	MH10	664909	5487377	2159	45	0	-90
MH16CC-02	LDC	MH10	664911	5487379	2159	44	0	-90
MH16CC-03	LDC	MH10	664913	5487376	2159	41	0	-90
MH16CC-04	LDC	MH10	664911	5487374	2159	43	0	-90
MH16CC-05	LDC	MH10	664913	5487373	2159	44	0	-90
MH16CC-06	LDC	MH10	664915	5487375	2159	42	0	-90
MH16CC-07	LDC	MH10	664916	5487373	2159	42	0	-90
MH16CC-08	LDC	MH10	664915	5487377	2159	41	0	-90
MH16CC-09	LDC	MH9	665069	5485767	2179	56	0	-90
MH16CC-10	LDC	MH9	665072	5485769	2179	56	0	-90
MH16CC-11	LDC	MH9	665074	5485771	2179	54	0	-90
MH16CC-12	LDC	MH9	665073	5485766	2179	54	0	-90
MH16CC-13	LDC	MH9	665075	5485768	2179	55	0	-90
<b>MH Total</b>						<b>616</b>		

## **4 2016 Exploration Work**

### **4.1 Drilling**

During June and July a total 616m of large diameter (15cm) core drilling was completed.

Good Earth Drilling Services Ltd. of Airdrie, Alberta completed all of the drilling.

Good Earth Drilling Services Ltd. mobilized to the site on June 21 and completed 13 large diameter core holes totaling 616m by July 14.

All 2016 drill holes were cased with welded-joint steel casing. The casing was left in the holes and the holes left open.

### **4.2 Geophysical Logging**

As per industry standard, all drill holes were geophysically logged. The geophysical contractor was Century Wireline Services, based in Red Deer, Alberta.

All open holes were logged with a gamma/neutron/deviation tool (#9058) and with a gamma/density/resistivity/caliper tool (#9239).

All holes were logged within a few days of drilling.

In general, the quality of the data was found to be good.

All of the 2016 geophysical logs are included in Appendix A.

### **4.3 Surveying**

CIMA Geomatics conducted a survey of drillhole locations for CanAus Coal Limited. Align Surveys was subcontracted to perform the field survey on site.

A static GPS survey was performed from the Priddis Canadian Active Control System monument PRDS CACS-GSD 756047 to several spikes that were placed on site. These placed spikes were used as local control benchmarks for the survey. Survey point 17 is one of these local control benchmarks and was used for the RTK survey of the drillhole locations. As an additional check for positional accuracy, a Precise Point Position (PPP) was processed for survey point 17 from the GPS data logged at that position.



The results of the PPP matched with the static survey results from PRDS CACS-GSD 756047 within 0.03m horizontally and 0.04m in elevation. The survey was performed in NAD 83 (CSRS) datum and the coordinates produced are UTM Zone 11 North. The Vertical Datum Is CGVD28 and elevations are orthometric heights. The geoid model used was GSD95.

The drillhole locations were surveyed in relation to survey point 17. Measurements were made to the approximate center of the drill holes at the surface entry points. Based on the terrain conditions and the survey methodology, the estimated positional accuracy of the drillhole surface locations is 0.20m in horizontal and 0.26m in vertical.

The locations of drillholes are shown in Table 3.3.1.

## 4.4 Sampling and Analysis

### 4.4.1 Large Diameter Core Sampling

Thirteen large diameter (15cm) core (LDC) drill holes were completed at two locations to collect samples of Seams 9 and 10 (MH9, MH10) for pilot scale wash and carbonization testing. Approximately 4320kg (wet) of coal was collected in total (Table 4.4.1). The core was logged and sampled on-site during drilling. The samples were sealed in heavy gauge plastic bags and immediately stored in an on-site refrigerated container which was subsequently shipped to Hazen Research Inc. in Golden, Colorado for pilot scale washing. Hazen Research completed the washing from July to September 2016, with sub-samples from each stage of the wash sent to Birtley Labs in Calgary, Alberta for coal quality analysis (details in Appendix C). Sub-samples from the Birtley samples were sent to Pearson Petrography in Victoria, British Columbia for petrographic analysis. The bulk of the resultant wash products were blended and shipped from Hazen Research to Canmet Energy in Ottawa, Ontario, with smaller blended product samples flown to ALS Ipswich in Australia in October for carbonization testing. Analytical results from Birtley Labs and Pearson Petrography are shown in Appendix D.

**Table 4.4.1 Sampling Summary**

Property	Seam	# Holes	Metres	Coal (kg)	Coal (m)
Michel Head	MH9	5	274	3003	125
	MH10	8	342	1317	53
	<b>Totals</b>	<b>13</b>	<b>616</b>	<b>4320</b>	<b>178</b>

## 5 Geology

### 5.1 Regional Structure

The East Kootenay coalfields lie in the Front Ranges of the Rocky Mountains which are characterized by north to northwest trending concentric folds and west dipping thrust faults. Tertiary normal faults, some of which are listric and probably occupy earlier thrust surfaces, are also a major feature.

The Crowsnest coalfield is a complex synclinorium in the Lewis thrust sheet. The major compressional features of the basin are the synclines linked en echelon by low-amplitude anticlines. A series of west dipping thrust faults dominate the structure of the north half of the basin. The major extensional feature is the Erickson fault system, which juxtaposes Mississippian limestone and the Kootenay Group. The fault has a minimum, west side down, displacement of 1,200m.

### 5.2 Stratigraphy

The Jurassic-Cretaceous Kootenay Group occupies part of a northwest trending belt of predominantly non-marine rocks comprising part of the Rocky Mountain Foothills and Front Ranges of southwestern Alberta and southeastern British Columbia. The Kootenay Group extends from just north of the United States border in the south to the North Saskatchewan River in the north (Gibson, 1985).

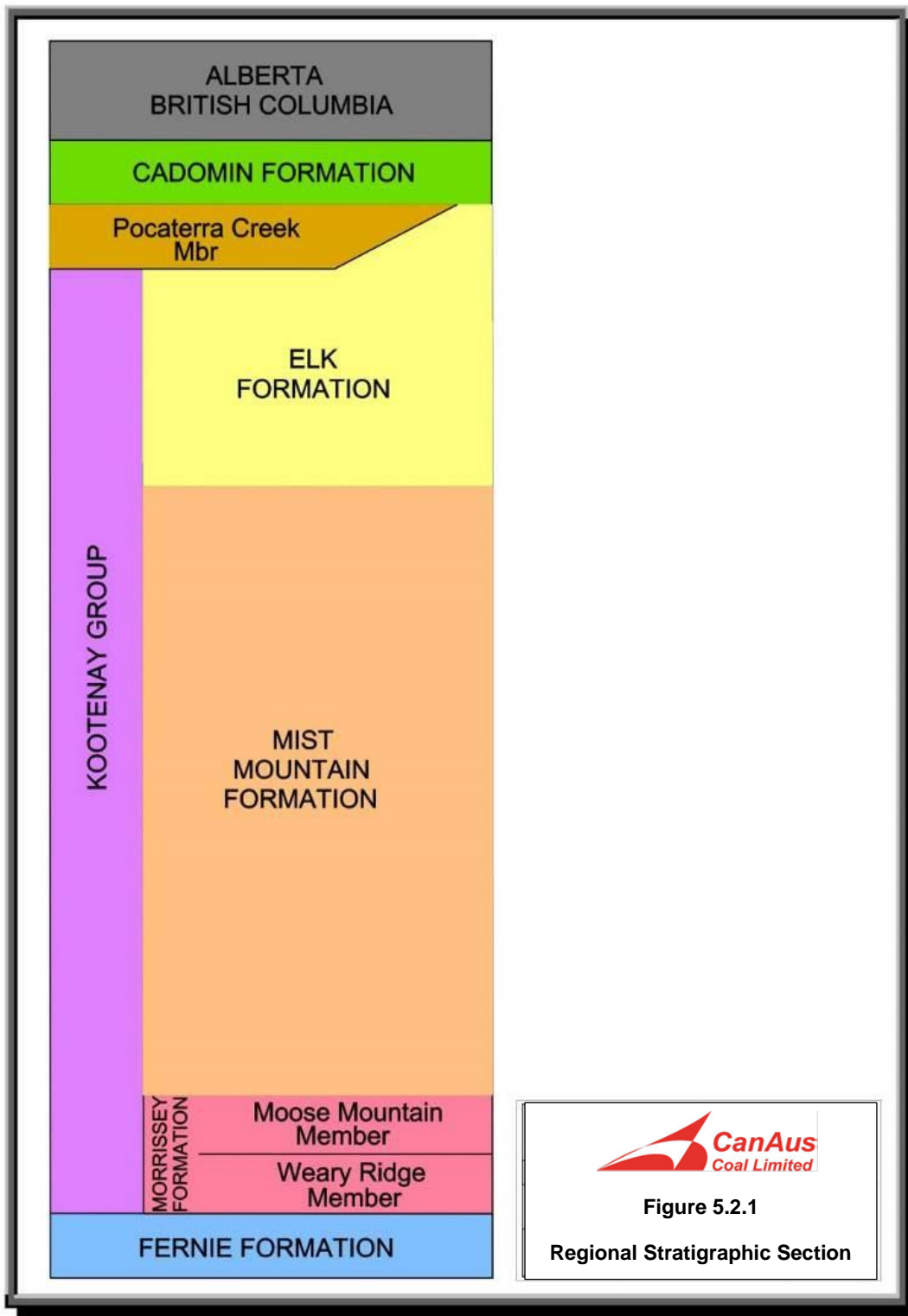
The Kootenay Group of the Rocky Mountain Foothills and Front Ranges encompasses the stratigraphic interval between the Jurassic Fernie Group below and the Lower Cretaceous Blairmore Group above (Gibson, 1985).

Three formations are recognized within the Kootenay Group, including the basal sandstone, Morrissey Formation, the coal-bearing Mist Mountain Formation, and the upper Elk Formation (Figure 5.2.1).

Knowledge and definition of the stratigraphic column is required prior to any correlation and structural work. Figure 5.3.1 has been compiled from the drilling and interpretation of the geology to date at Michel Head. The section shows eight coal seams within a section approximately 150m thick. The east Michel Creek/Mount Taylor area is somewhat anomalous in that the lower portion of the Mist Mountain Formation is dominated by up to four major sandstone horizons. Gibson, 1985, has measured a section on Mt. Taylor (west of Michel Head) which shows the Mist Mountain Formation to be just over 400m thick, but there is 190m between the top of the Fernie Group and the first important coal seam.

The drilling on Michel Head has identified a total of ten coal seams, though only eight seams report as resources as some seams are too thin, while others are intermittent. Table 5.3.1 lists the seams, the number of intercepts as well as the minimum, maximum and mean thickness of each.

**Figure 5.2.1 Regional Stratigraphic Section**



**Figure 5.2.1**  
**Regional Stratigraphic Section**

### 5.3 Geological Overview

Michel Head is on the east side of the Erickson normal fault, with the coal-bearing Mist Mountain Formation represented as an outlier thrust sheet forming Michel Head, Mount Taylor, and Tent Mountain. Michel Head has been interpreted as a simple dip-slope.

The 2014 drilling took place principally within the Mist Mountain Formation, through the coal-bearing section. Ten major coal seams from 4 to 12, are present and several subsidiary seams have been identified. Seam nomenclature is consistent with that of other mines in the area. The 2014 work permitted average thicknesses of the coal seams to be calculated over the entire deposit (Table 5.3.1).

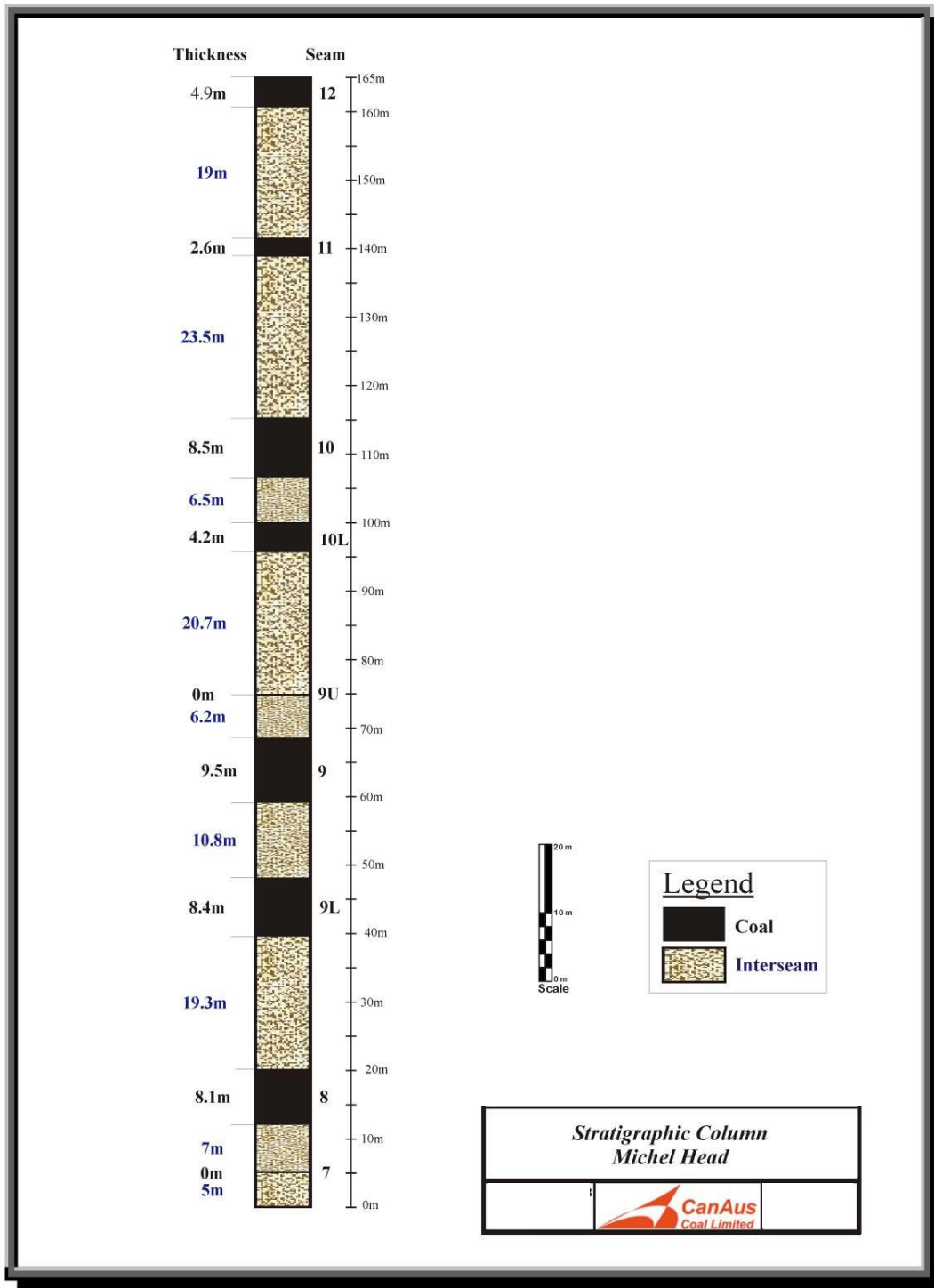
Overburden cover is generally minimal, ranging from a few centimetres thick in the exposed sub-alpine areas of the property to a few metres in the lower forested areas.

The data gathered in 2013 and 2014 assisted in the placement of drill holes in 2016.

**Table 5.3.1 Michel Head Seam Data**

Seam	Intercepts	Minimum (m)	Maximum (m)	Average (m)
12	5	3.34	6.92	4.85
11	12	0.11	4.59	2.65
10	38	0.56	33.18	8.5
10L	29	0.08	16.51	4.18
9U	25	0.04	4.7	0.93
9	47	0.15	29.49	9.52
9L	42	0.84	16.3	8.4
8	14	5.43	12.97	8.09
7	1	0.38	0.38	0.38
4	1	3.88	3.88	3.88

**Figure 5.3.1 Typical Stratigraphic Section**



## 7 Reclamation

CanAus Coal policy is to keep exploration disturbance to the smallest practical area. Natural soil profiles are maintained whenever possible to enhance natural regeneration and to control erosion-causing runoff. Drill sites are recontoured and revegetated as soon as work is completed and deemed not required for further use. In addition, all exploration areas are left in a clean, safe and stable condition at the end of each field season.

Primary access in 2016 was via existing exploration and forestry trails, as described in Section 2.3. During construction, woody debris was buried or stacked to the greatest extent possible, and shoulder areas were contoured to a naturalistic form. Drainage is controlled by ditches and culverts, with some supplemental cross-ditching.

No drill trails or pads were constructed on Michel Head in 2016. Steeper trails were temporarily deactivated with cross-ditches.

## 8 Expenditures

Actual expenditure for this work during the period June through December, 2016 was \$622,782. Major expense items are included in Table 8.1.

**Table 8.1 Expenditures**

Major Budget Items	
Drilling	\$ 290,631
Technical Services	\$48,020
Analytical	\$175,772
Heavy Equipment	\$5,726
Safety	\$14,280
Licences and Permits	\$43,725
Personnel	\$13,260
Miscellaneous	\$31,368
<b>Total</b>	<b>\$622,782</b>

Details are presented in Appendix F.

## **9 Conclusions**

The 2016 Michel Head exploration program accomplished the goal of collecting enough coal samples of Seams 9 and 10 (MH9, MH10) to conduct full coal quality analysis and carbonization testing on the individual seams and potential blends.

Approximately 4320kg of coal was collected from 13 large diameter (15cm) core drillholes. The coal was processed in a pilot scale wash facility and the clean coal was analyzed for coking coal properties and carbonization qualities. The results for coking coal properties indicate the potential for a hard coking coal product similar to other coals of similar rank produced in the Elk Valley region. Further sampling of the primary seams using 15cm core in new locations is recommended to improve the coal quality understanding across the deposit.



## **10 References**

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Leach, R. 2015. Michel Creek Coking Coal Project – Large Diameter Coring Program 2013-2014

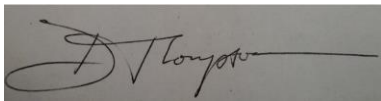
Thompson, D., CanAus Coal Ltd., 2015. Assessment Report, 2014 Michel Head Exploration Program

## 11 Statement of Qualifications

**I, David A. Thompson, BSc, P.Geo., of 14-2656 Morningstar Crescent, Vancouver BC V5S 4P4, do hereby certify that:**

1. I am Chief Geologist for CanAus Coal Ltd.
2. I graduated with a B.Sc. from the University of BC in 1986.
3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (Member ID #150701) and the Association of Professional Engineers and Geoscientists of Alberta (Member ID #184563).
4. I have worked as a geologist for a total of sixteen years since my graduation from university.
5. My past experience includes eleven years working in coal exploration and mining in British Columbia and Alberta. I have managed large scale exploration programs for the definition and resource development of several complex metallurgical coal deposits up to and including the feasibility stage and mine development of those deposits. I was also the Chief Geologist in the production department at Peace River Coal's Trend Mine in Tumbler Ridge BC.
6. I am responsible for the entire Assessment Report titled "Assessment Report: 2016 Michel Head Exploration Program" dated 31 January, 2017.
7. I was on site for the entirety of the 2016 exploration program.
8. To the best of my knowledge, information and belief, the Assessment Report contains all scientific and technical information that is required to conform to the Mineral Tenure Act Regulations of British Columbia.
9. I consent to the filing of the Assessment Report with the British Columbia Ministry of Energy and Mines Geological Survey Branch.

**Dated this 31st day of January, 2017.**



Dave Thompson, P.Geo.  
CanAus Coal Ltd.

## Appendices

- Appendix A Geophysical Logs – (in .ZIP file attached)
- Appendix B Drill Core Logs – (in .ZIP file attached)
- Appendix C Sample Summary
- Appendix D Sample Analytical Results and Certificates – (in .ZIP file attached)
- Appendix E Analytical and Processing Guidelines
- Appendix F Statement of Costs

# CanAus Coal Limited

## Lithological Core Logging Codes and Abbreviations

### Definition Sheet

Code/Abbreviation	Definition
CGL	Conglomerate
SST	Sandstone
SLT	Siltstone
CLY	Claystone
SHL	Shale
MST/MS	Mudstone
CMST/CM	Carbonaceous mudstone
BC/BN	Boney Coal
SC	Shaley coal
CO/C	Coal
LMST	Limestone
OVB	Overburden
CL	Core loss
PY	Pyrite
CARB	Carbonates
VNLTS	Veinlets
BCN/CN	Bedding to core normal
TCA	To core axis
HW	Hanging wall
FW	Foot wall
EOH	End of hole

CanAus Coal Ltd.																		
Large Diameter (6'') Core Description																		
Hole:	MH16CC-01																	
Northing:	5487380.000			UTM System:	NAD83					Hole Orientation:	Vertical			Property:	Loop Ridge		Cased to:	18m
Easting:	664913									Hole Type:	6 inch/15cm core			Seam:	10.00		Core point:	31m
Elevation:	2159m												Total Depth:	45.41				
										Logged by:	HE			Date:	July 6/7 2016			
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description
	From	To	Interval	Recovered		From	To	Interval	Recovered									
				m	%				m	%								
													(kg)					
																		6m of casing originally set, then hole became unstable at around 15m, so more casing was sunk to a depth of 18m.
1	31.00	32.00	1.00	1.05	105%			0.00	1.05									
	31.00	32.00	1.00	1.05	105%			0.00	1.05					B/I	CM/MST		N	Mostly solid and intact, brown/grey.
2	32.00	33.30	1.30	1.26	97%			0.00	1.26									
	32.00	33.26	1.26	1.26	100%			0.00	1.26					B/I	CM/MST		N	2cm carb/coaly stringer near bottom - not sampled.
	33.26	33.30	0.04	0.00	0%										LO			
3	33.30	34.80	1.50	1.55	103%			0.00	1.55									
	33.30	34.80	1.50	1.55	103%			0.00	1.55					B/I	MST		N	Sulfur smell, orange colouring in MST (iron?), sheared at top, broken in shoe.
4	34.80	36.36	1.56	1.56	100%			0.00	1.56									
	34.80	35.07	0.27	0.27	100%	35.01	36.01	1.00	1.00	100%	25			I	CM/MST		N	2cm sheared zone contact with coal at 25 degrees. Same as above.
	35.07	36.07	1.00	1.00	100%			0.00	1.00	100%		R341700	25.2	I	C	10	N	Soft, friable, shiny, some compressed powder
	36.07	36.36	0.29	0.29	100%	36.01	36.30	0.29	0.29	100%		R341701	25.4	I	C	10	N	a.a. Broken in shoe, strong sulfur smell.
5	36.36	37.86	1.50	1.46	97%			0.00	1.46									
	36.36	36.51	0.15	0.15	100%	36.30	36.45	0.15	0.15	100%		R341701	25.4	B	C	10	N	Shiny, blocky sheared zone.
	36.51	37.07	0.56	0.56	100%	36.45	37.01	0.56	0.56	100%		R341701	25.4	I	C	10	N	Mostly firable, soft, shiny, minor dull and hard zones.
	37.07	37.82	0.75	0.75	100%	37.01	37.76	0.75	0.75	100%		R341702	24.6	I	C	10	N	a.a. Sulfur smell, broken in shoe, minor MST clasts.
	37.82	37.86	0.04	0.00	0%	37.76	37.76	0.00	0.00						LO			
6	37.86	39.41	1.55	1.60	103%				1.60									
	37.86	38.11	0.25	0.25	100%	37.76	38.01	0.25	0.25	100%		R341702	24.6	B	C	10	N	Mix of shiny and dull, bright bands.
	38.11	39.11	1.00	1.00	100%	38.01	39.01	1.00	1.00	100%		R341703	26.2	I	C	10	N	a.a.
	39.11	39.41	0.30	0.35	117%	39.01	39.36	0.35	0.35	100%		R341704	27.8	I	C	10	N	a.a. broken in shoe, minor mud clasts.
7	39.41	40.91	1.50	1.61	107%	39.36	39.36	0.00										
	39.41	40.06	0.65	0.65	100%	39.36	40.01	0.65	0.65	100%		R341704	27.8	B	C	10	N	Blocky, sheared, bright, 2 x ~6cm MST partings removed.
	40.06	40.91	0.85	0.96	113%	40.01	40.97	0.96	0.96	100%		R341705	21	I	C	10	N	a.a. ~2cm parting removed.
8	40.91	42.41	1.50	1.54	103%			0.00	1.54									
	40.91	41.91	1.00	1.00	100%	40.97	41.97	1.00	1.00	100%		R341706	24.6	B/I	C	10	N	Heavy, bright, shiny. Photo interval wrong.
	41.91	42.19	0.28	0.28	100%	41.97	42.25	0.28	0.28	100%		R341707	6.4	I	C	10	N	a.a.
	42.19	42.41	0.22	0.26	118%			0.00	0.26					B/I	CM		N	Carb. Parting removed, brown, hard and heavy.
9	42.41	43.91	1.50	1.53	102%			0.00	1.53									
	42.41	43.94	1.53	1.53	100%			0.00	1.53					B	MST		N	Mostly intact but upper half sheared.
10	43.91	45.41	1.50	1.53	102%			0.00	1.53									
	43.91	45.41	1.50	1.53	102%			0.00	1.53					I	MST		N	Brown/grey to bright yellow/orange, infill in fractures.

[illegible]

CanAus Coal Ltd.																			
Large Diameter (6”) Core Description																			
Hole:	MH16CC-02																		
Northing:	5487380			UTM System:	NAD 83					Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	18m
Easting:	664910									Hole Type:	6 inch/15cm core				Seam:	10		Core point:	33m
Elevation:	2159m													Total Depth:	43.95m				
										Logged by:	H. Evans				Date:	2016-07-07			
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
				Recovered					Recovered							Fizz			
	From	To	Interval	m	%	From	To	Interval	m	%						Y/N?			
1	33.00	34.55	1.55	1.38	89%														
	33.00	33.43	0.43	0.43	100%	33.00	33.43	0.43	0.43	100%				Broken	MST		N	fractured zone, brown	
	33.43	33.78	0.35	0.35	100%	33.43	33.78	0.35	0.35	100%				Intact	MST		N	brown, getting more carbon-rich toward contact	
	33.78	34.38	0.60	0.60	100%	33.78	34.38	0.60	0.60	100%	22°	R341708	25.6	Intact	C	10	N	broken in shoe, sulfur smell, sharp contact at 22° *photo taken after sample started	
	34.38	34.55	0.17	0.00	0%	34.38	34.55	0.17	0.00	0%					LO				
2	34.55	36.30	1.75	1.72	98%	34.55	36.30	1.75	1.72	98%									
	34.55	34.95	0.40	0.40	100%	34.55	34.95	0.40	0.40	100%		708		intact/broken	C	10	N	core not totally whole. Friable, some shiny and slickenside, soft, light, bright	
	34.95	35.95	1.00	1.00	100%	34.95	35.95	1.00	1.00	100%		709	23.8	intact/broken	C	10	N	aa.	
	35.95	36.27	0.32	0.32	100%	35.95	36.27	0.32	0.32	100%		710	21.2	intact/broken	C	10	N	aa. Broken in shoe	
	36.27	36.30	0.01	0.00	0%	36.27	36.30	0.01	0.00	0%					LO				
3	36.30	37.90	1.60	1.62	101%	36.30	37.90	1.60	1.62	101%									
	36.30	36.98	0.68	0.68	100%	36.30	36.98	0.68	0.68	100%		710		intact/broken	C	10	N	top 23 cm is broken. Blocky, friable, soft	
	36.98	37.90	0.92	0.94	102%	36.98	37.90	0.92	0.94	102%		R339229	25.4	intact/broken	C	10	N	aa. Brown muddy clasts throughout bottom 30 cm- heavy, could not remove	
4	37.90	39.40	1.50	1.50	100%	37.90	39.40	1.50	1.50	100%									
	37.90	38.90	1.00	1.00	100%	37.90	38.90	1.00	1.00	100%		230	30	intact	C	10	N	shiny hard friable, sections with a brownish tinge. Heavy	
	38.90	39.40	0.50	0.50	100%	38.90	39.40	0.50	0.50	100%		231	24.8	intact/broken	C	10	N	aa. Broken in shoe, 1cm CM parting removed	
5	39.40	40.90	1.50	1.20	80%	39.40	40.90	1.50	1.20	80%									
	39.40	39.90	0.50	0.50	100%	39.40	39.90	0.50	0.50	100%		231		intact/broken	C	10	N	blocky, hard, sheared and fractured mid-way. Some compressed powder, bright	
	39.90	40.60	0.70	0.70	100%	39.90	40.60	0.70	0.70	100%		232	16.8	intact/broken	C	10	N	aa. But not as bright. Broken in shoe	
	40.60	40.90	0.30	0.00	0%	40.60	40.90	0.30	0.00	0%					LO				
6	40.90	42.45	1.55	1.40	90%	40.90	42.45	1.55	1.40	90%									
	40.90	41.00	0.10	0.10	100%	40.90	41.00	0.10	0.10	100%		232		broken	C	10	N	brownish coal, broken, blocky, hard	
	41.00	42.30	1.30	1.30	100%	41.00	42.30	1.30	1.30	100%	30°	EX		Broken/intact	CM/MST		N	sheared sections at middle and bottom. Sharp contact with coal at 30°	
	42.30	42.45	0.12	0.00	0%	42.30	42.45	0.12	0.00	0%					LO				
7	42.45	43.95	1.50	1.53	102%	42.45	43.95	1.50	1.53	102%									
	42.45	43.95	1.50	1.53	102%	42.45	43.95	1.50	1.53	102%		EX		broken/intact	CM		N	grey/brown CM with fractured zones. Orage-yellow oxidation. Some coaly stringers <1cm	
								6.72										EOH: 43.95m	

[illegible]



[illegible]

CanAus Coal Ltd.																			
Large Diameter (6'') Core Description																			
Hole:	MH16CC-05																		
Northing:	5487373.000			UTM System:	NAD 83					Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	12m
Easting:	664908									Hole Type:	6 inch/15cm core				Seam:	10.00		Core point:	32m
Elevation:	2159m													Total Depth:	43.9m				
										Logged by:	H.Evans				Date:	2016-07-11			
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered				(kg)						
				m	%				m	%									Fizz
1	32.00	33.20	1.20	1.27	106%														Gain throughout hole?
	32.00	32.27	0.27	0.27	100%									broken	CM		N		fractured, iron oxidation on surfaces
	32.27	33.17	0.90	0.90	100%									broken/intact	CM		N		muddy, fractured with some gouge
	33.17	33.27	0.10	0.10	100%									broken	C/CM		N		Coaly CM, not sampled
2	33.20	34.70	1.50	1.65	110%														
	33.20	34.20	1.00	1.00	100%	32.90	33.90	1.00	1.00	100%		R339247	24.8	intact	C	10	N		friable, bright, muddy clasts throughout, ~5cm removed
	34.20	34.85	0.65	0.65	100%	33.90	34.55	0.65	0.65	100%		248	23.4	intact	C	10	N		aa. Broken in shoe. Cleaner than above
3	34.70	36.30	1.60	1.65	103%														
	34.70	35.05	0.35	0.35	100%	34.55	34.90	0.35	0.35	100%		248		broken/intact	C	10	N		fracture gouge at top 10cm, friable, dull
	35.05	36.05	1.00	1.00	100%	34.90	35.90	1.00	1.00	100%		249	28.6	intact	C	10	N		dull, solid, minor mud clasts
	36.05	36.35	0.30	0.30	100%	35.90	36.20	0.30	0.30	100%		250	22.8	intact	C	10	N		aa. Broken in shoe
4	36.30	37.80	1.50	1.71	114%														
	36.30	37.01	0.71	0.71	100%	36.20	36.91	0.71	0.71	100%		250		intact	C	10	N		shiny, friable, minor mud clasts
	37.01	38.01	1.00	1.00	100%	36.91	37.91	1.00	1.00	100%		D144554	29.6	intact	C	10	N		shiny, some compressed powder, 3X 3cm mud partings, hard to distinguish, removed
5	37.80	39.30	1.50	1.64	109%														
	37.80	38.80	1.00	1.00	100%	37.91	38.91	1.00	1.00	100%		555	22	intact	C	10	N		dull, friable, light. ~5cm mud parting removed, ~8cm mud parting removed
	38.80	39.44	0.64	0.64	100%	38.91	39.55	0.64	0.64	100%		556	17.6	intact	C	10	N		aa. Broken in shoe
6	39.30	40.80	1.50	1.57	105%														
	39.30	39.58	0.28	0.28	100%	39.55	39.83	0.28	0.28	100%		556		broken	C	10	N		hard, blocky, light, friable, broken
	39.58	39.66	0.08	0.08	100%	39.83	39.91	0.08	0.08	100%		556		intact	C	10	N		aa. But intact
	39.66	40.63	0.97	0.97	100%	39.91	40.70	0.79	0.97	123%		557	24.8	intact/broken	C	10	N		aa. Smells like sulfur
	40.63	40.80	0.17	0.24	141%				0.24			EX		broken	CM/SLT		N		black, hard, fine-grained, heavy, broken in shoe
7	40.80	42.40	1.60	1.60	100%														
	40.80	42.40	1.60	1.60	100%				1.60			EX		broken	CM/SLT		N		very fine grained, dark, dull, heavy
8	42.40	43.90	1.50	1.43	95%														
	42.40	43.83	1.43	1.43	100%				1.43			EX		broken/intact	CM/SLT		N		aa. Iron oxidation, some fractured.
	43.83	43.90	0.00	0.00	#DIV/0!										LO				Loss added to gain above in run 6.
																			EOH: 43.9m
								7.80											

CanAus Coal Ltd.																			
Large Diameter (6'') Core Description																			
Hole:	MH16CC-06																		
Northing:	5487373.000			UTM System:	NAD 83					Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	18m
Easting:	664911									Hole Type:	6 inch/15cm core				Seam:	10		Core point:	32m
Elevation:	2159m													Total Depth:	41.5				
										Logged by:	AC				Date:	July 12th 2016			
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered										
				m	%				m	%									
													(kg)						
Hammer	31.70	32.00	0.30	0.00		31.70	32.00	0.30	0.00						CO				
1	32.00	33.00	1.00	1.05	105%														
	32.00	32.46	0.46	0.46	100%	32.00	32.46	0.46	0.46	100%		D144558	26.60	I	CO	10	N	Some thin visible MS bedding at top of run. May have only just hit coal. CO med hardness, muddier towards base, thin MS partings (~1cm).	
	32.46	32.61	0.15	0.15	100%	32.46	32.61	0.15	0.15	100%				I	CM	10	N	Very coaly, excluded from sample.	
	32.61	33.00	0.39	0.44	113%	32.61	33.05	0.44	0.44	100%				I	CO	10	N	Softer than CO above.	
2	33.00	34.00	1.00	1.12	112%														
	33.00	33.55	0.55	0.55	100%	33.05	33.60	0.55	0.55	100%		D144559	24.6	I	CO	10	N	Soft, sheared, slightly muddy.	
	33.55	33.68	0.13	0.13	100%	33.60	33.73	0.13	0.13	100%				I	CM	10	N	Coaly, hard to distinguish CO from CM, excluded from sample.	
	33.68	34.12	0.44	0.44	100%	33.73	34.17	0.44	0.44	100%		D144559	24.6	I	CO	10	N	Soft sheared, dull, muddy.	
3	34.00	35.50	1.50	1.45	97%														
	34.00	34.53	0.53	0.53	100%	34.17	34.70	0.53	0.53	100%		D144560	22.6	I	CO	10	Y	Hard in part, sheared, muddy at base, minor HCL reaction.	
	34.53	34.65	0.12	0.12	100%	34.70	34.82	0.12	0.12	100%				I	CM	10	N	Very coaly, excluded.	
	34.65	35.10	0.45	0.45	100%	34.82	35.27	0.45	0.45	100%		D144560	22.6	I	CO	10	N	Dull, sheared, muddy.	
	35.10	35.45	0.35	0.35	100%	35.27	35.62	0.35	0.35	100%				I	CM	10	N	Very coaly but majority mud, excluded.	
	35.45	35.50	0.05	0.00	0%	35.62	35.62	0.00	0.00						Loss			0.05cm loss taken off gain from run 1	
4	35.50	37.00	1.50	1.30	87%														
	35.50	35.65	0.15	0.15	100%	35.62	35.77	0.15	0.15	100%				B	CM	10	N	a.a.	
	35.65	36.65	1.00	1.00	100%	35.77	36.77	1.00	1.00	100%		D144561	25.8	I	CO	10	N	Harder than coal above, blocky, shiny, sheared and softer at base.	
	36.65	36.80	0.15	0.15	100%	36.77	36.92	0.15	0.15	100%		D144562	27	I	CO	10	N	a.a.	
	36.80	37.00	0.20	0.00	0%	36.92	36.92	0.00	0.00						Loss			Loss added to gain in run 5 and 7	
5	37.00	38.50	1.50	1.58	105%														
	37.00	37.25	0.25	0.25	100%	36.92	37.17	0.25	0.25	100%				I	CM	10	N	Very coaly, sheared.	
	37.25	37.60	0.35	0.35	100%	37.17	37.52	0.35	0.35	100%		D144562	27	I	CO	10	N	Blocky but soft.	
	37.60	38.25	0.65	0.65	100%	37.52	38.17	0.65	0.65	100%				I	CM	10	N	Very coaly.	
	38.25	38.50	0.25	0.33	132%	38.17	38.50	0.33	0.33	100%		D144562	27	B	CO	10	N	Soft, sheared.	
6	38.50	40.00	1.50	1.50	100%														
	38.50	38.78	0.28	0.28	100%	38.50	38.78	0.28	0.28	100%		D144562	27	I	CO	10	N	Sheared, soft with hard zones.	
	38.78	39.23	0.45	0.45	100%	38.78	39.23	0.45	0.45	100%		D144563	11.6	I	CO	10	N	a.a. Geophys cut off at bottom - hard to tell footwall contact.	
	39.23	40.00	0.77	0.77	100%									I/B	MS	10	N	Coaly/carbonaceous transition zone at top (soft), hard and more intact near middle to base.	
	40.00	41.50	1.50	1.58	105%									I	MS		N	Mostly intact with occasional sheared fractured sections, light brown streak, some iron staining on fracture surfaces.	
									5.43										

CanAus Coal Ltd.																			
Large Diameter (6”) Core Description																			
Hole:	MH16CC-07																		
Northing:	5487371			UTM System:	NAD83				Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	12	
Easting:	664909								Hole Type:	6 inch/15cm core				Seam:	10.00		Core point:	30	
Elevation:	2159m												Total Depth:	42					
									Logged by:	HE/AC				Date:	July 13 2016				
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered				(kg)						
				m	%				m	%									Fizz
1	30.00	31.60	1.60	1.57	98%														
	30.00	31.57	1.57	1.57	100%										CM	10	N	Carbonaceous mud with iron staining on fractured surfaces.	
	31.57	31.60	0.03	0.00	0%										Loss				
2	31.60	33.00	1.40	1.35	96%	31.30	32.65	1.35	1.35	100%									
	31.60	31.95	0.35	0.35	100%	31.30	31.65	0.35	0.35	100%				B	MS		N	Iron-staining on fracture surfaces, hard.	
	31.95	32.60	0.65	0.65	100%	31.65	32.30	0.65	0.65	100%				B	CM/CO	10	N	Carbonaceous mud grading into muddy coal, sheared throughout.	
	32.60	32.95	0.35	0.35	100%	32.30	32.65	0.35	0.35	100%		D144564	24.8	B	CO	10	N	Soft, sheared, more dull at top.	
	32.95	33.00	0.03	0.00	0%	32.65	32.68	0.03	0.00	0%					Loss				
3	33.00	34.50	1.50	1.52	101%	32.68	34.20	1.50	1.52	101%									
	33.00	33.65	0.65	0.65	100%	32.68	33.33	0.65	0.65	100%		D144564	24.8	I	CO	10	N	Sheared, soft.	
	33.65	34.50	0.85	0.87	102%	33.33	34.20	0.87	0.87	100%		D144565	23	I	CO	10	N	a.a., more broken than CO above, may just be from shoe.	
4	34.50	36.00	1.50	1.45	97%	34.20	35.70	1.50	1.45	97%									
	34.50	34.63	0.13	0.13	100%	34.20	34.33	0.13	0.13	100%		D144565	23	B	CO	10	N	a.a.	
	34.63	35.63	1.00	1.00	100%	34.33	35.33	1.00	1.00	100%		D144566	23	I	CO	10	N	Soft, sheared, ~10cm blocky section in middle, occasional 1cm MS partings (removed), rare calcite cleats near bottom.	
	35.63	35.95	0.32	0.32	100%	35.33	35.65	0.32	0.32	100%		D144567	22	B	CO	10	N	Muddy in middle, ~cm removed, soft, sheared.	
	35.95	36.00	0.05	0.00	0%	35.65	35.70	0.05	0.00	0%					Loss				
5	36.00	37.50	1.50	1.51	101%	35.70	37.21	1.51	1.51	100%									
	36.00	36.18	0.18	0.18	100%	35.70	35.88	0.18	0.18	100%				B	CO/CM	10	N	Coal with carbonaceous mud, excluded as partings were hard tp separate.	
	36.18	36.58	0.40	0.40	100%	35.88	36.28	0.40	0.40	100%		D144567	22	I	CO	10	N	Blocky, hard in middle, muddy at base.	
	36.58	37.13	0.55	0.55	100%	36.28	36.83	0.55	0.55	100%				I	CM	10	N	Very coaly, hard to distinguish coal and mud, excluded as a sample.	
	37.13	37.51	0.38	0.38	100%	36.83	37.21	0.38	0.38	100%		D144567	22	B	CO	10	N	Muddy at top, harder fragments at base.	
6	37.50	39.00	1.50	1.43	95%	37.21	39.17	1.96	1.43	73%									
	37.50	38.05	0.55	0.55	100%	37.21	37.76	0.55	0.55	100%		D144568	24.2	B	CO	10	N	Sheared, blocky.	
	38.05	38.41	0.36	0.36	100%	37.76	38.12	0.36	0.36	100%				I	CO/CM	10	N	Interbedded coal and carbonaceous mud, multiple lighter MS partings throughout. Excluded as a sample.	
	38.41	38.93	0.52	0.52	100%	38.12	38.64	0.52	0.52	100%		D144568	24.2	B	CO	10	N	Broken from shoe, muddy at top, 1x small 1.5cm parting removed, soft, sheared.	
	38.93	39.00	0.07	0.00	0%	38.64	39.17	0.53	0.00	0%					Loss				
7	39.00	40.50	1.50	1.45	97%	39.17	40.62	1.45	1.45	100%									
	39.00	39.74	0.74	0.74	100%	39.17	39.91	0.74	0.74	100%		D144569	17.8	B	CO	10	N	Hard, fractures, very sheared at bottom, fragments are lightweight when picked up for sampling.	
	39.74	40.45	0.71	0.71	100%									B	MS	10	N	Carbonaceous and coal at top, transitions into more hard/intact light brown MS, fractured.	
8	40.50	42.00	1.50	1.61	107%														

[illegible]

CanAus Coal Ltd.  
Large Diameter (6”) Core Description

Hole: MH16CC-08

Northing: 5487377

Easting: 664914.8

Elevation: 2158.809

UTM  
System: NAD83

Hole  
Orientatio  
n: Vertical

Property: Micheal Head

Cased to: 18

Core  
point: 31

Hole Type: 6 inch/15cm core

Seam: MH10

Total Depth: 41.1

Logged by: HE/ML

Date: 2016-07-14

Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered				(kg)						Y/N?
				m	%				m	%									
1	31.00	31.80	0.80	0.80	100%													Some fault gouge, some intact core, iron staining. Very carbon rich	
	31.00	31.80	0.80	0.80	100%							B	CM		N				
2	31.80	33.30	1.50	1.47	98%														
	31.80	31.86	0.06	0.06	100%							B	CM		N		as above. Blocky		
	31.86	32.86	1.00	1.00	100%	31.65	32.65	1.00	1.00	100%	D144570	22.6	I	C	10	N	some compressed powder, minor mudclasts throughout. Soft		
	32.86	33.27	0.41	0.41	100%	32.65	33.06	0.41	0.41	100%	D144571	20.8	I/B	C	10	N	a.a. broken in shoe		
	33.27	33.30	0.00	0.00	0%	33.06	33.06	0.00	0.00					LO			0.03 loss added to run gain on run 3		
3	33.30	34.30	1.00	1.05	105%														
	33.30	33.89	0.59	0.59	100%	33.06	33.65	0.59	0.59	100%	D144571			C	10	N	shiny, bright, friable, flakey		
	33.89	34.30	0.41	0.46	112%	33.65	34.11	0.46	0.46	100%	D144572	20.8		C	10	N	aa		
4	34.30	36.05	1.75	1.74	99%													*core barrel stuffed - could be compressed and actually more than 1.74	
	34.30	34.84	0.54	0.54	100%	34.11	34.65	0.54	0.54	100%	D144572		B	C	10	N	shiny, flakey, very friable		
	34.84	35.84	1.00	1.00	100%	34.65	35.65	1.00	1.00	100%	D144573	22.6	B/I	C	10	N	2 cm CM parting, removed. Dull, blocky, very friable		
	35.84	36.04	0.20	0.20	100%	35.65	35.85	0.20	0.20	100%	D144574	34.8	B/I	C	10	N	aa but no parting		
	36.04	36.05	0.00	0.00	0%	35.85	35.85	0.00	0.00					LO			0.01 loss added to run gain on run 3		
5	36.05	37.65	1.60	1.74	109%													*core barrel stuffed again	
	36.05	36.85	0.80	0.80	100%	35.85	36.65	0.80	0.80	100%	D144574		I	C	10	N	aa. Bright but dull. ~2cm parting removed, heavy		
	36.85	37.65	0.80	0.94	117%	36.65	37.59	0.94	0.94	100%	D144575	21.2	I/B	C	10	N	dull, blocky, very friable		
6	37.65	39.10	1.45	1.51	104%														
	37.65	37.70	0.05	0.05	100%	37.59	37.64	0.05	0.05	100%	D144576	25.4	B	C	10	N	Hard, fractured		
	37.70	38.10	0.40	0.40	100%	37.64	38.04	0.40	0.40	100%		EX	I	CM/C	10	N	v. hard, heavy. Looks like Co, hard to tell but very heavy		
	38.10	39.10	1.00	1.06	106%	38.04	39.10	1.06	1.06	100%	D144576		I/B	C	10	N	dull, soft, smell sulphur. 0.06m gain taken from run 8		
7	39.10	40.60	1.50	1.50	100%														
	39.10	39.60	0.50	0.50	100%	39.10	39.60	0.50	0.50	100%	D144577	14.2	I	C	10	N	v hard, dense, dull w rare bright bands, grades into Ms		
	39.60	40.60	1.00	1.00	100%								B	Ms		N	brown, soft, sheared. Silty/muddy		
8	40.60	41.10	0.50	0.30	60%														
	40.60	40.90	0.30	0.30	100%								B	Ms		N	as above. V broken. Fracture zone. Fault gouge clays. *No picture		
	40.90	41.10	0.00	0.00	0%									LO			0.14m loss added from gain in run 5.		

7.55

Partings coaly/muddy on geophys, went with geos obs as they were very close to actual log.Depths not consitent between runs 5 and 6, hoever bottom of coal was right on?

CanAus Coal Ltd.																			
Large Diameter (6") Core Description																			
Hole:	MH16CC-09																		
Northing:	5485765.000			UTM System:	NAD 83					Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	3m
Easting:	665070									Hole Type:	6 inch/15cm core			Seam:	9		Core point:	19.5m	
Elevation:	2159m												Total Depth:	56.00m					
										Logged by:	Brian Larson/Hilary Evans			Date:	2016-06-21				
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered										
				m	%				m	%									
													(kg)						
1	19.50	20.40	0.90	0.82	91%														
	19.50	19.65	0.15	0.15	100%									Broken	C	9		Coal, Shiny, hard, ~15cm stringer	
	19.65	20.32	0.67	0.67	100%										SLT			SlT, brownish in fractures, some black	
	20.32	20.40	0.04	0.00	0%										loss				
2	20.40	21.70	1.30	1.27	98%														
	20.40	21.67	1.27	1.27	100%										SLT			Very hard SLT, as above	
	21.67	21.70	0.03	0.00	0%										loss				
3	21.70	22.20	0.50	0.46	92%														
	21.70	22.16	0.46	0.46	100%										SLT			SLT/MST, as above with nice crossbedding	
	22.16	22.20	0.04	0.00	0%										loss			0.04 loss removed by gain from run 6.	
4	22.20	23.70	1.50	1.33	89%														
	22.20	23.53	1.33	1.33	100%									Intact	SLT			SLT, hard, black, 20cm coal stringer	
	23.53	23.70	0.03	0.00	0%										loss				
5	23.70	25.20	1.50	1.64	109%													0.14 cm loss added to this run.	
	23.56	24.31	0.75	0.75	100%										SLT			sharp contact with coal, hanging wall	
	24.31	25.20	0.89	0.89	100%	24.31	25.20	0.89	0.89	100%		R341451	21.2	Intact	C	9		Coal, very soft and shiny	
6	25.20	26.10	0.90	0.94	104%	25.20	26.10	0.90	0.94	104%									
	25.20	26.10	0.90	0.94	104%	25.20	26.10	0.90	0.94	104%		R341452	23.4	Intact	C	9		As above	
7	26.10	27.50	1.40	1.22	87%	26.10	27.50	1.40	1.22	87%									
	26.10	27.10	1.00	1.00	100%	26.10	27.10	1.00	1.00	100%		R341453	24.6	Intact	C	9		Coal, shiny, soft to firm	
	27.10	27.32	0.22	0.22	100%	27.10	27.32	0.22	0.22	100%		R341454	24.2	Intact	C	9		Coal as above	
	27.32	27.50	0.18	0.00	0%	27.32	27.50	0.18	0.00	0%					Loss			0.16m Loss added to run 9.	
8	27.50	29.00	1.50	1.50	100%	27.50	29.00	1.50	1.50	100%									
	27.50	28.20	0.70	0.70	100%	27.50	28.20	0.70	0.70	100%		R341454		Intact	C	9		Coal as above	
	28.20	28.80	0.60	0.60	100%	28.20	28.80	0.60	0.60	100%					MST			Carb mst, removed	
	28.80	28.95	0.15	0.15	100%	28.80	28.95	0.15	0.15	100%		R341454			C	9		Coal stringer, including in parting as per geophys.	
	28.95	29.00	0.05	0.05	100%	28.95	29.00	0.05	0.05	100%					MST			Carb mst removed	
9	29.00	30.50	1.50	1.66	111%														
	29.00	29.18	0.18	0.18	100%	29.00	29.18	0.18	0.18	100%					CM			Carb mst parting removed	
	29.18	30.18	1.00	1.00	100%	29.18	30.18	1.00	1.00	100%		R341455	26.4	Intact	C	9		Coal as above	
	30.18	30.50	0.32	0.48	150%	30.18	30.50	0.32	0.48	150%		R341456		Intact	C	9		Coal as above	
10	30.50	32.00	1.50	1.53	102%														
	30.50	31.02	0.52	0.52	100%	30.50	31.02	0.52	0.52	100%		R341456	20.2	Intact/Broken	C	9		Shiny on fractured surface, hard, friable, small (<1cm) partings	
	31.02	32.00	0.98	1.01	103%	31.02	32.00	0.98	1.01	103%		R341457	26.2	Intact	C	9		Same as above, broken in shoe. 0.03m Loss added from run 4.	
11	32.00	33.50	1.50	1.58	105%														



Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description
	From	To	Interval	Recovered		From	To	Interval	Recovered							Fizz		
				m	%				m	%						Y/N?		
	32.00	32.48	0.48	0.48	100%	32.00	32.48	0.48	0.48	100%		R341458	24.6	Broken	C	9		fractured and sheared blocky zone from 0.46-0.48 some compressed powder, hard
	32.48	33.00	0.52	0.52	100%	32.48	33.00	0.52	0.52	100%		R341458		Broken	C	9		hard, shiny surfaces, some compressed powder
	33.00	33.50	0.50	0.58	116%	33.00	33.50	0.50	0.58	116%		R341459		Intact	C	9		compressed powder, some friable sections and some shiny chunks, Slicken side
12	33.50	35.00	1.50	1.41	94%													
	33.50	33.92	0.42	0.42	100%	33.50	33.92	0.42	0.42	100%		R341459	22.4	Intact/broken	C	9		fractures at 63° - mostly intact with fractures, some brown chunks removed
	33.92	34.91	0.99	0.99	100%	33.92	34.91	0.99	0.99	100%		R341460	25	Intact	C	9		Same as above, hard, shears along fractures, friable, very shiny and slickenside
	34.91	#REF!	0.09	0.00	0%	34.91	#REF!	0.09	0.00	0%					LO			0.09Loss added to gain on run 13
13	35.00	36.50	1.50	1.59	106%													
	35.00	35.30	0.30	0.30	100%	35.00	35.30	0.30	0.30	100%		R341461	23.6	Intact	C	9		Same as above, sheared at 0.30
	35.30	36.00	0.70	0.70	100%	35.30	36.00	0.70	0.70	100%		R341461		Intact	C	9		Same as above with compressed powder, friable
	36.00	36.50	0.50	0.59	118%	36.00	36.50	0.50	0.59	118%		R341462	23	Intact	C			Same as above, broken in shoe, slickenside fractured surfaces
14	36.50	38.00	1.50	1.52	101%													
	36.50	36.91	0.41	0.41	100%	36.50	36.91	0.41	0.41	100%		R341462		Intact	C	9		Same as above, very hard
	36.91	37.35	0.44	0.44	100%	36.91	37.35	0.44	0.44	100%		R341463		Intact	C	9		Same as above
	37.35	37.67	0.32	0.32	100%	37.35	37.67	0.32	0.32	100%				Intact	CM/C	9		some heavy coal with ~10cm CM- removed
	37.67	38.00	0.33	0.35	106%	37.67	38.00	0.33	0.35	106%		R341463		Broken/Intact	C	9		Broken in shoe. Friable, shiny, flakey.
15	38.00	39.50	1.50	1.52	101%													
	38.00	38.21	0.21	0.21	100%	38.00	38.21	0.21	0.21	100%		R341463	26.2	Intact	C	9	N	Med-shiny, friable, fractures at 52°, slickenside on fractured surfaces mix of flakey and compressed powder
	38.21	38.75	0.54	0.54	100%	38.21	38.75	0.54	0.54	100%		R341464	19	Intact	C	9	little	Same as above
	38.75	38.87	0.12	0.12	100%	38.75	38.87	0.12	0.12	100%		EXCLUDED			CM			CM parting removed
	38.87	39.21	0.34	0.34	100%	38.87	39.21	0.34	0.34	100%		R341464		Intact	C	9	little	same as above Sample 464 only 88cm
	39.21	39.50	0.29	0.31	107%	39.21	39.50	0.29	0.31	107%		R341465	22.6	Intact	C	9		same as above
16	39.50	41.00	1.50	1.51	101%													
	39.50	39.84	0.34	0.34	100%	39.50	39.84	0.34	0.34	100%		EXCLUDED		Intact	CM			CM parting removed
	39.84	40.53	0.69	0.69	100%	39.84	40.53	0.69	0.69	100%		R341465		Intact	C	9		Very hard and friable, shiny, flakey
	40.53	41.00	0.47	0.48	102%	40.53	41.00	0.47	0.48	102%		R341466	23.6	Intact	C	9		compressed powder, very shiny and friable
17	41.00	42.50	1.50	1.56	104%													
	41.00	41.15	0.15	0.15	100%	41.00	41.15	0.15	0.15	100%		R341466		Intact	C	9	little	same as above
	41.15	41.30	0.15	0.15	100%	41.15	41.30	0.15	0.15	100%		EXCLUDED		Intact	C/CM			very hard brown parting removed
	41.30	41.67	0.37	0.37	100%	41.30	41.67	0.37	0.37	100%		R341466		Broken	C	9		flakey, friable, hard, shiny
	41.67	42.50	0.83	0.89	107%	41.67	42.50	0.83	0.89	107%		R341467	25	Broken/Intact	C	9		same as above, some broken, some intact. Loss added from run 21 and 24
18	42.50	44.00	1.50	1.54	103%	42.50	44.00	1.50	1.54	103%								
	42.50	42.61	0.11	0.11	100%	42.50	42.61	0.11	0.11	100%		R341467		Intact	C	9		med-shiny, some flakes, aome compressed powder
	42.61	43.61	1.00	1.00	100%	42.61	43.61	1.00	1.00	100%		R341468	23.4	Intact	C	9		same as above, <2cm parting removed
	43.61	44.00	0.39	0.43	110%	43.61	44.00	0.39	0.43	110%		R341469	22	Intact	C	9	N	Same as above, dull, broken in shoe, no partings. Loss added from 24
19	44.00	45.50	1.50	1.50	100%													
	44.00	44.57	0.57	0.57	100%	44.00	44.57	0.57	0.57	100%		R341469	22	Intact	C	9	N	blocky, flakey, very shiny, breaks easily along fractures, slickenside along fractured surfaces
	44.57	45.09	0.52	0.52	100%	44.57	45.09	0.52	0.52	100%		R341470	22.4	Intact	C	9	N	Same as above
	45.09	45.19	0.10	0.10	100%	45.09	45.19	0.10	0.10	100%		EXCLUDED		Intact	CM		N	CM parting (4 x ~2cm each) removed
	45.19	45.50	0.31	0.31	100%	45.19	45.50	0.31	0.31	100%		R341470		Broken	C	9	N	Broken in shoe, med-shiny, flakey, some compressed powder



Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description
				Recovered					Recovered							Fizz		
	From	To	Interval	m	%	From	To	Interval	m	%			(kg)				Y/N?	
20	45.50	47.00	1.50	1.56	104%	45.50	47.00	1.50	1.56	104%								
	45.50	45.67	0.17	0.17	100%	45.50	45.67	0.17	0.17	100%		R341470		Intact	C	9	Y	FIZZES A LOT!! Med-shiny, hard, blocky
	45.67	46.67	1.00	1.00	100%	45.67	46.67	1.00	1.00	100%		R341471	24.2	Intact	C	9	Y	same as above, but dull, breaks easily along fractures
	46.67	46.82	0.15	0.15	100%	46.67	46.82	0.15	0.15	100%		R341472	26	Intact	C	9	Y	Pyrite present, very hard, heavy, dull, friable
	46.82	47.07	0.24	0.24	100%	46.82	47.07	0.25	0.24	96%		EXCLUDED		Broken	CM			MST parting- no distinct contact. Loss added from run 24
21	47.00	48.50	1.50	1.47	98%													
	47.00	47.07	0.07	0.07	100%	47.00	47.07	0.07	0.07	100%		EXCLUDED		Intact	CM		N	parting with no distinct contact
	47.07	47.44	0.37	0.37	100%	47.07	47.44	0.37	0.37	100%		R341472		Intact	C	9	N	dull, flakey, not fracturing as before
	47.44	47.49	0.05	0.05	100%	47.44	47.49	0.05	0.05	100%		EXCLUDED		Intact	CM			small muddy parting removed
	47.49	47.97	0.48	0.48	100%	47.49	47.97	0.48	0.48	100%		R341472		Intact	C	9	N	Shiny, friable, some dull fracture surfaces
	47.97	48.47	0.50	0.50	100%	47.97	48.47	0.50	0.50	100%		R341473	23.8	Intact	C	9	N	same as above, 2 x ~4cm CM partings removed
	48.47	48.50	0.03	0.00	0%	48.47	48.50	0.03	0.00	0%					Loss			
22	48.50	50.00	1.50	1.56	104%	48.50	50.00	1.50	1.56	104%								
	48.50	48.82	0.32	0.32	100%	48.50	48.82	0.32	0.32	100%		R341473		Broken	C	9		med-shiny, flakey, friable, some dull bits
	48.82	48.89	0.07	0.07	100%	48.82	48.89	0.07	0.07	100%		EXCLUDED		Intact	CM			MST parting removed
	48.89	49.07	0.18	0.18	100%	48.89	49.07	0.18	0.18	100%		R341473		Intact	C	9		med-shiny, flakey, friable, some compressed powder
	49.07	49.80	0.73	0.73	100%	49.07	49.80	0.73	0.73	100%		R341474	18.6	Intact	C	9		same as above
	49.80	49.95	0.15	0.15	100%	49.80	49.95	0.15	0.15	100%		EXCLUDED		Intact	CM			muddy parting removed
	49.95	50.00	0.05	0.11	220%	49.95	50.00	0.05	0.11	220%		R341474		Intact	C	9		flakey, shiny, some compressed powder and dull. 0.06m Loss added from run 24. CO included in parting as per geophys.
																		*sample 474 only 84 cm because 745 is a "dirty" sample
23	50.00	51.50	1.50	1.61	107%													
	50.00	50.76	0.76	0.76	100%	50.00	50.76	0.76	0.76	100%				Intact	CM		N	Dark to light brown MST parting with shear zone (~20cm)
	50.76	51.36	0.60	0.60	100%	50.76	51.36	0.60	0.60	100%		R341475	30.2	Intact	C		N	dull coal with ~1cm partings throughout, sample is a little dirty
	51.36	51.50	0.14	0.25	179%	51.36	51.50	0.14	0.25	179%		R341475						logged from photo
24	51.50	53.00	1.50	1.50	100%	51.50	53.00	1.50	1.50	100%								
	51.50	51.90	0.40	0.40	100%	51.50	51.90	0.40	0.40	100%		R341475		Intact	C		N	same as above, heavy
	51.90	52.28	0.38	0.38	100%	51.90	52.28	0.38	0.38	100%		R341476		Broken	C		N	Flakey, ~15 cm sheared zone, hard, small partings
	52.28	52.39	0.11	0.11	100%	52.28	52.39	0.11	0.11	100%	30°	EXCLUDED		Intact	CM		N	Muddy parting removed, contact at 30°
	52.39	52.69	0.30	0.30	100%	52.39	52.69	0.30	0.30	100%		R341476	17.2	Intact	C		N	some slicken side, mix of flakey and compressed powder, some brown coal, friable but hard
	52.69	53.00	0.31	0.31	100%	52.69	53.00	0.31	0.30	97%		EXCLUDED		Broken	CM/C		N	very carbon-rich mudstone - removed
25	53.00	54.50	1.50	1.36	91%	53.00	54.50	1.50	1.36	91%								
	53.00	53.55	0.55	0.55	100%	53.00	53.55	0.55	0.55	100%				Broken	CM		N	Carbon-rich black/brown, heavy
	53.55	53.75	0.20	0.20	100%	53.55	53.75	0.20	0.20	100%				Broken	C		N	dirty coal, shiny, blocky. Exact bottom of coal hard to pick on geophys as log ends at just over 53m. Geos observations used.
	53.75	54.36	0.61	0.61	100%	53.75	54.36	0.61	0.61	100%				Broken	CM		N	black/brown, carbon-rich, heavy
	54.36	54.50	0.14	0.00	0%	54.36	54.50	0.14	0.00	0%					Loss			
26	54.50	56.00	1.50	1.32	88%													
	54.50	55.82	1.32	1.32	100%									Broken/Intact	CM			black/brown carbon-rich, heavy, some fractured blocky zones ~20cm
	55.82	56.00	0.18	0.00	0%										Loss			
																		EOH
								3.31										

**CanAus Coal Ltd.**  
**Large Diameter (6") Core Description**

Hole: MH16CC-10

**Northing:** 5485763.000

**UTM**  
**System:** NAD 83

Hole Orientation: Vertical

**Property:** Michel Head

**Cased to:** 6m. **\*Rig 130 Good Earth Drill\***

Easting: 665068

**Hole Type:** 6 inch/15cm core

**Seam: 9.00**

point: 23m below ground level

Elevation: 2179m

**Total Depth:** 56.5

**Logged by:** B.Larson/H. Evans

Date: 16/6/22-23

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	42.00	42.24	0.24	0.24	100%	42.25	42.49	0.24	0.24	100%		492	I	C	N	Flakey, med. Shiney, some comp. powder.	
	42.24	42.34	0.10	0.10	100%	42.49	42.59	0.10	0.10	100%		EX		CM		Muddy parting.	
	42.34	42.80	0.46	0.46	100%	42.59	43.05	0.46	0.46	100%			492	25.2 I	C	N	Dull, flakey, some comp. powder, breaks easily along fracture.
	42.80	43.50	0.70	0.72	103%	43.05	43.77	0.72	0.72	100%			493	I	C	Y	aa- calcite veining.
15	43.50	45.00	1.50	1.53	102%												
	43.50	43.78	0.28	0.28	100%	43.77	44.05	0.28	0.28	100%		493	20.8 I/B	C	Little	2cm parting removed(SLT), soft some comp. powdersome v. shining most med. Shine.	
	43.78	44.53	0.75	0.75	100%	44.05	44.80	0.75	0.75	100%			494	19.2 I/B	C	N	aa.
	44.53	44.78	0.25	0.25	100%	44.80	45.05	0.25	0.25	100%		EX		I/B	SLT	N	Removed parting SLT, very dark brown.
	44.78	45.00	0.22	0.25	114%	45.05	45.30	0.25	0.25	100%			495	B	C	N	Some comp. powder, some v. shiny flakes.
16	45.00	46.50	1.50	1.55	103%												
	45.00	45.75	0.75	0.75	100%	45.30	46.05	0.75	0.75	100%		495	21.4 I	C	Y	Dense, slickenside, med. Shine, hard.	
	45.75	46.55	0.80	0.80	100%	46.05	46.85	0.80	0.80	100%			496	22 I	C	Y	aa. Minor cm parting at bottom, rock chunks removed (5cm).
17	46.50	48.00	1.50	1.64	109%												
	46.50	46.75	0.25	0.25	100%	46.85	47.10	0.25	0.25	100%	EX		B	C/CM	N	Mixed (coal grading to cm) coal with cm parting, broken.	
	46.75	46.95	0.20	0.20	100%	47.10	47.30	0.20	0.20	100%			496	I	C/CM	N	Bright, flakey, 2cm cm parting.
	46.95	47.05	0.10	0.10	100%	47.30	47.40	0.10	0.10	100%		497	23.8 I	C/CM	N	aa. No parting.	
	47.05	47.24	0.19	0.19	100%	47.40	47.59	0.19	0.19	100%		EX		I	CM	N	Rock parting- brown/grey.
	47.24	47.44	0.20	0.20	100%	47.59	47.79	0.20	0.20	100%	EX	497	I	C	N	Flakey, friable.	
	47.44	48.14	0.70	0.70	100%	47.79	48.49	0.70	0.70	100%			I	CM	N	Brown/grey rock parting in minor coal bands.	
18	48.00	49.50	1.50	1.56	104%												
	48.00	48.08	0.08	0.08	100%	48.49	48.57	0.08	0.08	100%	EX		B	CM	N	aa.	
	48.08	48.54	0.46	0.46	100%	48.57	49.03	0.46	0.46	100%			497	B	C	Little	Bright, friable, heavy, slickensideds, dirty, flakey.
	48.54	48.59	0.05	0.05	100%	49.03	49.08	0.05	0.05	100%	EX		I	CM	N	Almost coal- cm mixed with coal, heavy, brown.	
	48.59	48.83	0.24	0.24	100%	49.08	49.32	0.24	0.24	100%			497	I	C	N	Flaky, friable.
	48.83	49.28	0.45	0.45	100%	49.32	49.77	0.45	0.45	100%	EX	498	23.6 I	C	N	Brown tinge, dull, dirty.	
	49.28	49.33	0.05	0.05	100%	49.77	49.82	0.05	0.05	100%			I	CM	N	cm, brown, faulting.	
	49.33	49.56	0.23	0.23	100%	49.82	50.05	0.23	0.23	100%			498	B	C	N	Bright, light, dry, friable.
19	49.50	51.00	1.50	1.46	97%												
	49.50	49.82	0.32	0.32	100%	50.05	50.37	0.32	0.32	100%		498	B	C	N	Some bright bands, mostly dull, friable, light.	
	49.82	50.96	1.14	1.14	100%	50.37	51.51	1.14	1.14	100%			499	21.2 I	C	N	5cm cm parting, dull, friable, sheared.
	50.96	51.00	0.00	0.00	0%			0.00	0.00					LO			Another 5cm parting 50cm into sample (partings removed) soft, faulted, very bottom of run is rocky again
20	51.00	52.50	1.50	1.54	103%												
	51.00	51.15	0.15	0.15	100%	51.51	51.66	0.15	0.15	100%	Ex		I	CM	N	v. dark SLT/CM almost coal- very heavy.	
	51.15	52.15	1.00	1.00	100%	51.66	52.66	1.00	1.00	100%			500	27.2 I	C	N	4cm parting removed, hard, flakey sheared sections, PY, slickenside blocky sections.
	52.15	52.35	0.20	0.20	100%	52.66	52.86	0.20	0.20	100%	R342779		B	C	N	Sheared, shiny, slickenside, friable.	
	52.35	52.50	0.15	0.19	127%	52.86	53.05	0.19	0.19	100%		EX		B	SLT/CM	N	Almost coal, brown streak, hard, heavy. 0.04m gain removed from loss in previous run.
21	52.50	54.00	1.50	1.58	105%												
	52.50	52.55	0.05	0.05	100%	53.05	53.10	0.05	0.05	100%	EX		B	SLT/CM	N	Friable, heavy, hard, flakey.	
	52.55	52.65	0.10	0.10	100%	53.10	53.20	0.10	0.10	100%			779	B	C	N	Rock- brown/grey, v. dark.
	52.65	54.00	1.35	1.35	100%	53.20	54.55	1.35	1.35	100%	EX		I	SLT/CM	N	Shiney, flakey, friable, heavy.	
	54.00	54.08	0.08	0.08	100%	54.55	54.63	0.08	0.08	100%			779	10.6 B	C	N	
22	54.00	55.50	1.50	1.53	102%												
	54.00	55.53	1.53	1.53	100%	54.63	56.16	1.53	1.53	100%			B	CM		Black/brown, carbonaceous, sheared, fractured, last 10cm is shale.	
	55.50	56.50	1.00	1.00	100%												
23	55.50	56.50	1.00	1.00	100%	56.16	57.16	1.00	1.00	100%			B	CM		CM/shale, sheared and fractured.	
										5.14 24.02							*EOH:56.5*

CanAus Coal Ltd.									
Large Diameter (6") Core Description									
Hole:	<u>MH16CC-11</u>								
				UTM		Hole		Cased	
Northing:	<u>5485773.000</u>			System: <u>NAD 83</u>		Orientation: <u>Vertical</u>		to: <u>6m</u>	
						Property: <u>Michel Head</u>		Core	
Easting:	<u>665073</u>					Hole Type: <u>6 inch/15cm core</u>		point: <u>23m below ground level</u>	
Elevation:	<u>2159m</u>					Seam: <u>9.00</u>			
						Total Depth: _____			
				Logged by: <u>BC/H. Evans</u>		Date: <u>16/06/23-24</u>			

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Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description	
	From	To	Interval	Recovered		From	To	Interval	Recovered							Fizz			
				m	%				m	%			(kg)			Y/N?			
	32.00	32.82	0.82	0.82		32.10	32.92	0.82	0.82	100%		727		intact	C	9	N	broken from being partially stuck in split, soft, sheared, harder at top	
	32.82	33.50	0.68	0.68		32.92	33.60	0.68	0.68	100%		728	22.8	intact	C	9	Y	aa. Small amount of HCl reaction	
10	33.50	35.00	1.50	1.61	107%														
	33.50	33.82	0.32	0.32		33.60	33.92	0.32	0.32	100%		728		intact	C	9	Y	small mud band ~ 1cm near middle removed, soft, sheared	
	33.82	34.82	1.00	1.00		33.92	34.92	1.00	1.00	100%		729	25.2	intact	C	9	N	muddy, soft	
	34.82	35.00	0.18	0.29		34.92	35.21	0.29	0.29	100%		730	22.8	broken	C	9	N	soft and sheared	
11	35.00	36.50	1.50	1.55	103%														
	35.00	35.71	0.71	0.71		35.21	35.92	0.71	0.71	100%		730		intact	C	9	N	soft, sheared	
	35.71	36.50	0.74	0.75		35.92	36.67	0.75	0.75	100%		731	26.4	intact	C	9	N	aa. Muddy in parts	
	36.50	36.50	0.00	0.09		36.67	36.76	0.09	0.09	100%		EX		broken	C/CM	9	Y	mixed with MST and carbonaceous material, broken from shoe, hard	
12	36.50	38.00	1.50	1.46	97%														
	36.50	36.82	0.32	0.32		36.76	37.08	0.32	0.32	100%		731		intact	C	9	Y	hard, mudstone streaks	
	36.82	37.07	0.25	0.25		37.08	37.33	0.25	0.25	100%		731		intact	C	9	N	sheared, slickenside, blocky, hard	
	37.07	37.41	0.34	0.34		37.33	37.67	0.34	0.34	100%		732	21.4	intact	C	9	Y	minor HCl	
	37.41	37.69	0.28	0.28		37.67	37.95	0.28	0.28	100%		EX		intact	CM		Y	hard, dark brown streak	
	37.69	38.00	0.31	0.27		37.95	38.22	0.27	0.27	100%		732		broken	C	9	N	soft, sheared	
13	38.00	39.50	1.50	1.49	99%														
	38.00	38.21	0.21	0.21		38.22	38.43	0.21	0.21	100%		732		intact/broken	C	9	Y	minor HCl reaction, hard, sheared at base	
	38.21	39.21	1.00	1.00		38.43	39.43	1.00	1.00	100%		733	23.2	intact	C	9	N	soft with occasional hard sections, sheared at base	
	39.21	39.50	0.29	0.28		39.43	39.71	0.28	0.28	100%		734	22.6	intact	C	9	N	soft, sheared	
14	39.50	41.00	1.50	1.38	92%														
	39.50	40.02	0.52	0.52		39.71	40.23	0.52	0.52	100%		734		intact	C	9	N	soft, sheared	
	40.02	40.07	0.05	0.05		40.23	40.28	0.05	0.05	100%		EX		intact	MS		N	light brown	
	40.07	40.29	0.22	0.22		40.28	40.50	0.22	0.22	100%		734		intact	C	9	N	aa.	
	40.29	41.00	0.71	0.59		40.50	41.09	0.59	0.59	100%		735	21.4	intact	C	9	N	harder than coal above, dull, sheared	
15	41.00	42.50	1.50	1.55	103%														
	41.00	41.48	0.48	0.48		41.09	41.57	0.48	0.48	100%		735		intact	C	9	N	aa. ~1cm MS parting removed	
	41.48	42.28	0.80	0.80		41.57	42.37	0.80	0.80	100%		736	23.6	intact	C	9	N	hard, dull, sheared	
	42.28	42.44	0.16	0.16		42.37	42.53	0.16	0.16	100%		EX			CM		Y	coaly, minor HCl reaction, dark brown streak	
	42.44	42.50	0.06	0.11		42.53	42.64	0.11	0.11	100%		736			C	9	N	soft, sheared	
16	42.50	44.00	1.50	1.62	108%														
	42.50	43.50	1.00	1.00		42.64	43.64	1.00	1.00	100%		737	23	intact	C		9	Y	muddy in part, 2cm parting removed, sheared, very minor HCl reaction, mostly soft but has harder bands within coal- could be CM
	43.50	44.00	0.50	0.62		43.64	44.26	0.62	0.62	100%		738	25	intact	C		9	N	softer than coal above, sheared
17	44.00	45.50	1.50	1.40	93%														
	44.00	44.38	0.38	0.38		44.26	44.64	0.38	0.38	100%		738		intact	C	9	N	soft, sheared, MS parting at top removed ~4cm	
	44.38	44.73	0.35	0.35		44.64	44.99	0.35	0.35	100%		739	30	intact	C	9	N	aa	
	44.73	45.03	0.30	0.30		44.99	45.29	0.30	0.30	100%		EX		intact	CM		Y	coaly at top	
	45.03	45.50	0.47	0.37		45.29	45.66	0.37	0.37	100%		739		intact	C	9	N	harder at top, soft, sheared	
18	45.50	47.00	1.50	1.55	103%														
	45.50	45.65	0.15	0.15		45.66	45.81	0.15	0.15	100%		739		intact	C	9	N	aa.	
	45.65	46.40	0.75	0.75		45.81	46.56	0.75	0.75	100%		EX		intact	MS		Y	carbonaceous in part ~10cm coal band near middle, soft coal sampled (may be a bit more than 1m)	



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CanAus Coal Ltd.																		
Large Diameter (6”) Core Description																		
Hole:	MH16CC-13																	
Northing:	5485763.000			UTM System:	NAD83				Hole Orientation:	Vertical				Property:	Loop Ridge		Cased to:	6m
Easting:	665068								Hole Type:	6 inch/15cm core			Seam:	9.00		Core point:	22.5m	
Elevation:	2179m											Total Depth:	54.5m					
									Logged by:	H.Evans/ A. Cousins			Date:	2016-07-05				
Run #	Driller's Depths					Corrected Depths					BCN	Sample #	Sample Mass	Core Quality	Lith Code	Seam	Acid Test	Description
				Recovered					Recovered									
	From	To	Interval	m	%	From	To	Interval	m	%			(kg)					
Hilary																		
1	22.50	24.00	1.50	1.68	112%				1.68									
				0.70					0.70		20°		intact	MST		N		some small stringers above a sharp contact
				0.98		22.90	23.88	0.98	0.98	100%		R341743	21.2	intact	C	9	N	some compressed powder, shiny, bright, some slickenside surfaces
2	24.00	25.70	1.70	1.70	100%				1.70									
				1.00		23.88	24.88	1.00	1.00	100%		744	24.4	intact	C	9	N	as above. With ~2cm mst parting removed
				0.70		24.88	25.58	0.70	0.70	100%		745	22.8	intact	C	9	Y	aa. Some calcite infill
3	25.70	27.25	1.55	1.70	110%				1.70									
				0.30		25.58	25.88	0.30	0.30	100%		745		intact	C	9	y	aa. Very shiny and friable
				1.00		25.88	26.88	1.00	1.00	100%		746	26.4	intact	C	9	Y	aa. Some compressed powder, some flakey
				0.40		26.88	27.28	0.40	0.40	100%		747	25.2	intact	C	9	Y	very friable, ~2cm MST parting removed
4	27.25	28.75	1.50	1.55	103%				1.55									
				0.60		27.28	27.88	0.60	0.60	100%		747		intact	C	9	Y	aa. Very shiny and friable
				0.95		27.88	28.83	0.95	0.95	100%		748	24.4	intact	C	9		aa.
Abby																		
5	28.75	30.30	1.55	1.65	106%				1.65									
				1.00		28.83	29.83	1.00	1.00	100%		749	24	intact	C	9	N	soft, harder at top
				0.65		29.83	30.48	0.65	0.65	100%		750	25.6	intact	C	9	N	soft, sheared
6	30.30	31.90	1.60	1.70	106%				1.70									
				0.35		30.48	30.83	0.35	0.35	100%		750		intact	C	9	Y	very minor HCl reaction, med-hard, slickensided
				1.00		30.83	31.83	1.00	1.00	100%		R342751	22.2	intact	C	9	Y	softer than above, dull, sheared
				0.35		31.83	32.18	0.35	0.35	100%		752	25.2	intact/broken	C	9	N	soft, sheared, broken from shoe
7	31.90	33.50	1.60	1.57	98%				1.57									
				0.65		32.18	32.83	0.65	0.65	100%		752		intact	C	9	Y	minor HCl reaction, med-hard, dull, slickensided
				0.92		32.83	33.75	0.92	0.92	100%		753	21.8	intact/broken	C	9	Y	harder at top, softer and broken at base
8	33.50	35.00	1.50	1.55	103%				1.55									
				1.00		33.75	34.75	1.00	1.00	100%		754	21.2	intact	C	9	Y	hard, muddy, 5cm MST parting removed from middle
				0.55		34.75	35.30	0.55	0.55	100%		755	24	intact	C	9	N	soft, sheared
9	35.00	36.50	1.50	1.47	98%				1.47									
				0.45		35.30	35.75	0.45	0.45	100%		755		intact	C	9	N	soft, sheared



[illegible]

## Appendix C - Sample Summary

Seam	Sample ID	Description	Date
MH9	A04311	As-received	29-07-2016
MH9	A04354	Flot Conc Blend	10-08-2016
MH9	A04406	Spiral Rewash Conc Blended	18-08-2016
MH9	A04416	Spiral Midds Run #1 Blended	18-08-2016
MH9	A04418	Spiral Midds Run #2 Blended	18-08-2016
MH9	A04430	HMC First Pass Float Blended	01-09-2016
MH9	A04438	HMC REWASH FLOAT	12-09-2016
MH9	A04444	HMC REWASH SINK	12-09-2016
MH9	A04455	FINAL PRODUCT	19-09-2016
MH10	A04326	As-received	01-08-2016
MH10	A04362	Flot Conc Blend	11-08-2016
MH10	A04408	Spiral Conc Blended	18-08-2016
MH10	A04410	Spiral Midds Blended	18-08-2016
MH10	A04453	HMC Float Blended	14-09-2016
MH10	A04462	FINAL PRODUCT	21-09-2016
MH Blend	A04474	FINAL PRODUCT	26-09-2016
MH Blend	A04484	FINAL PRODUCT	25-10-2016

\*as received samples represent a composite of all individual seam samples from each core hole.

# Appendix E - Analytical and Processing Guidelines

<p>Samples are to be maintained in refrigerated storage prior to processing</p> <p>For each feed, lay the material onto the floor and homogenise with shovels.</p> <p>If there is a small content of coarse particles, reduce their size manually by hand knapping.</p> <p>If there is excessive coarse content, it might be necessary to reduce particle size with the roll crusher set at about 25mm to 40mm topsize, prior to homogenising.</p> <p>Reduce the feed to 15mm topsize with the roll crusher.</p> <p>During the crushing phase, manually sample out a 50kg subsample which will be sent to GWIL.</p> <p>If the roll crushing phase has to be repeated several times, make sure the 50kg subsample represents all phases of the crushing.</p>		
<p><b>GWIL 50kg</b></p> <p>The subsample needs to be freighted overnight to GWIL.</p> <p>Subsample out a portion and analyse for:</p> <p>Proximates, FSI, ash chemistry.</p> <p>Subsample out a portion and wet size at 2mm and 0.25mm.</p> <p>The +2mm and -2mm+0.25mm fractions are to float sunk at 1.30, 1.35, 1.40, 1.45, 1.50, 1.60, 1.80, 2.00 densities.</p> <p>Proximates on each density fraction, and fractional FSI up to F1.60.</p> <p>The -0.25mm fraction is to receive starvation lab flotation.</p> <p>Proximates on each flotation fraction, FSI on the froths only.</p> <p>Instructions will be provided to GWIL on a clean coal sample constructions.</p> <p>Analysis on the clean coal sample is yet to be finalised.</p>	<p><b>Main Feed Sample</b></p> <p>Wet sizing phase at 2mm and 0.25mm.</p> <p>This can proceed on before we get data back from GWIL.</p> <p>The +2mm fraction can be part dried on the floor to reduce moisture content</p> <p>Place the coarse fraction back into refrigeration.</p> <p>The -2mm+0.25mm can be stored in drums saturated with water in a cool place outside refrigeration</p> <p>Collect the -0.25mm pulp in large tanks. Drain the supernatant off after about one day and transfer the concentrated pulp into manageable size containers. These can be stored for up to a week on the floor in a cool area.</p> <p>Generally, coal particles (even very fine ones) settle quite quickly.</p> <p>Clays don't. It doesn't matter if the supernatant has a hazy clay look to it.</p>	
<p><b>Processing Sized Samples</b></p> <p>No processing is to be undertaken prior to receipt of the analysis on the head subsample, from GWIL.</p> <p>When processing of each sizing is complete, cut out a subsample to be sent to GWIL:</p> <p>20kg +2mm product, note we may wash at 2 densities</p> <p>10kg -2mm+0.25mm product and middlings</p> <p>5kg -0.25mm product</p>	<p><b>Product Construction</b></p> <p>No product construction is to be undertaken prior to receipt of the analysis on the head subsample, from GWIL.</p> <p>Products can be constructed and homogenised on the floor with shovels and rakes.</p> <p>Each product will be approximately 500kg in dry mass.</p> <p>The product will be divided into three subsamples of typical mass:</p> <p>30kg to ALS Australia</p> <p>20kg to GWIL for analysis</p> <p>450kg to CANMET for pilot scale carbonisation</p>	

## Appendix F – Statement of Costs

2016 Michel Head Exploration		
Statement of Costs		
Major Budget Items	Contractor	Total (\$)
Drilling	Good Earth Drilling	290,631
	<b>Subtotal</b>	<b>290,631</b>
Technical Services	Leeder Consulting Inc.	1,275
	Century Wireline	7,875
	Silenus Resources Management	1,730
	Bob Leach Pty.	35,615
	Cameron Enterprises	1,092
	Align Surveys Ltd.	434
	<b>Subtotal</b>	<b>48,020</b>
Analytical	Hazen Research (pilot wash)	98,005
	Birtley Coal & Minerals Testing	25,598
	Elk Valley Environmental Services	50
	Pearson & Associates	2,850
	Canmet	18,023
	ACIRL Pty Ltd. (ALS)	31,246
	<b>Subtotal</b>	<b>175,772</b>
Heavy Equipment	Down to Earth Excavating	5,726
	<b>Subtotal</b>	<b>5,726</b>
Safety	Trucut Logging (1st Aid)	14,280
	<b>Subtotal</b>	<b>14,280</b>
Licences and Permits	Ministry of Finance (BC)	3,625
	Jemi Fibre (option fee)	40,000
	CPR (road crossing)	100
	<b>Subtotal</b>	<b>43,725</b>
Personnel	CanAus Geologists (contract)	13,260
	<b>Subtotal</b>	<b>13,260</b>
Miscellaneous	Drilling Supplies & travel costs	13,258
	Manitoulin Transport (samples)	2,657
	Hexagon Software	15,453
	<b>Subtotal</b>	<b>31,368</b>
<b>Total</b>		<b>622,782</b>