



Occurrence Details

Occurrence Number: 115I 003

Occurrence Name: Tantalus Butte

Occurrence Type: Hard-rock

Status: Deposit

Date printed: 12/16/2025 9:48:33 PM

General Information

Primary Commodities: coal

Deposit Type(s): Coal

Location(s): 62°7'25" N - -136°15'49" W

NTS Mapsheet(s): 115I01

Location Comments: .5 Kilometres

Hand Samples Available: Yes

Last Reviewed:

Capsule

Work History

Staked as coal lease 16536 in Oct/05 by C.E. Miller and adjacent lease 19203 to the west in Aug/06 by Miss E. Eisenbeiser. The first serious development commenced in 1923 when an adit was driven by Five Fingers Coal CL, and production averaged about 454 tonnes a year until 1938. The mine was reopened in 1948 by Yukon Coal CL (a Conwest subsidiary) and mined until 1967 to provide fuel for heating plants at United Keno Hill ML. Total production between 1948-1967 was approximately 118 000 tonnes, recovered by room and pillar mining above an adit about 900 m in length.

The mine was aquired by Anvil Mg Corp L in 1968, reopened in 1969 to supply fuel for plant heat and concentrate drying at the Faro Mine and to Cyprus Anvil Mg Corp in 1975. Cyprus Anvil mined about 109 770 tonnes from the underground mine between 1969 and the end of 1976, an additional 27 200 tonnes from the subcrop of the main seam about 520 m north of the portal in 1975-76, and explored extensions of the main seam with 6 underground holes (294.4 m) in 1973, bulldozer trenching and 10 surface holes (1545.3 m) in 1976, and 42 rotary percussion holes (3476.8 m) plus resistivity, IP, gravity and downhole EM surveys in 1977.

An underground fire in 1978 caused the mine to be sealed and production to be shifted to the surface mine, which produced 21 410 tonnes in 1978, 22 680 tonnes in 1979, about 18 140 tonnes in 1980, and 11 790 tonnes in 1981. Local exploration consisted of 1535.9 m of rotary percussion drilling (31 holes) and bulldozer trenching in 1978.

Capsule Geology

The coal occurs in the Upper Jurassic Tantalus Formation, striking north and dipping about 55° west. The seam is displaced by northeast-striking, southeast dipping faults. The main seam ranges from 2.4 to 6 m thick and is classified as a non-coking, high-volatile bituminous B coal. An average analysis is 14% ash, 35% volatile and 51% fixed carbon, with a gross calorific value between 11 000 and 12 700 BTU. The coal is agglomerating with a swelling index of 1 and is unsuitable for metallurgical coke.

The coal mined on surface had a lower calorific value, perhaps due to weathering. The 1977 drilling resulted in a large increase in proved reserves.

References

ANVIL MINING CORPORATION LTD, 1972. Assessment Report *#061104 by P.A. Hacquebard.

BOYD, B.W., 1973. Coal Resources of the Carmacks Area, Yukon Territory. Department of Indian Affairs and Northern Development, 14 p. Filed as Assessment Report *#060110.

AURUM GEOLOGICAL CONSULTANTS INC., 1994. Yukon Coal Inventory 1994. Energy and Mines Branch, Economic Development, Yukon Territorial Government, 169 p.

GEOLOGICAL SURVEY OF CANADA Memoir 5, p. 52-53; 189, p. 59-62.

GEOLOGICAL SURVEY OF CANADA Paper 68-68 p. 114.

HACQUEBARD, P.A., 1970. The correlation of the main seam in the Tantalus Butte coal mine at Carmacks, Yukon Territory. Department of Energy, Mines and Resources Canada, Topical Report No. 140, 21 p. Filed as Assessment Report *#061103.

MINERAL INDUSTRY REPORT 1969-1970, p. 155-156; 1971-1972, p. 126-127; 1774, p. 168; 1975, p. 172.

RESEARCH COUNCIL OF ALBERTA Report 66-6, p. 16.

YUKON COAL COMPANY LTD, 1947. Assessment Report *#060736 by A. Ognatieff.

YUKON COAL COMPANY LTD, 1948. Assessment Report *#060734 by E. Swartzman.

YUKON COAL COMPANY LTD, 1948. Assessment Report *#060735 by E. Swartzman.

YUKON COAL COMPANY LTD, 1965. Assessment Report *#092073 by E.J. Wade.

YUKON COAL COMPANY LTD and UNITED KENO HILL MINES LTD, 1965. Assessment Report *#019918 by A.D. Oliver.

Work History

Date	Work Type	Comment
12/31/1978	Drilling	Thirty-one holes, 1,535.887 m.

12/31/1978	Trenching	
12/31/1978	Development, Surface	Production shifts to surface pit until 1981.
12/31/1977	Drilling	Forty-two holes, 3,476.854 m.
12/31/1977	Ground Geophysics	Also IP, gravity and downhole EM surveys.
12/31/1976	Drilling	Ten holes, 1,545.336 m.
12/31/1976	Trenching	
12/31/1973	Drilling	Six holes, 294.437 m.
12/31/1969	Development, Underground	Re-opened, mining carried out to 1976.
12/31/1948	Development, Underground	Mining until 1967.
12/31/1923	Development, Underground	Dug 152.4 m adit, mining to 1938.

Assessment Reports that overlap occurrence					
Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097197	2017	Memo-Division Mountain Coal Project, Yukon Territory	Property Evaluation - Other		
092031	1977	Report on Preliminary Evaluation Carmacks Coal Project	Property Evaluation - Other, Data Compilation - Pre-existing Data		
092032	1977	Report on 1977 Reconnaissance of Yukon Coal Occurrences,Report on 1977 Field Program Carmacks Coal Project	Orthophoto - Airphotography, Rotary - Drilling, Drill Cuttings - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, Gravity Survey - Ground Geophysics, IP - Ground Geophysics, Resistivity - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Line Cutting - Other	47	3476.85
019920	1971	1971 Report on Explorations for Coal in the Carmacks and Nordenskiold Areas	All Weather Road - Development, Surface, Rock - Geochemistry, IP - Ground Geophysics, Prospecting - Other		
060582	1971	[Report on Explorations in Nordenskiold and Carmacks Area]	Diamond - Drilling, Rock - Geochemistry, Detailed Bedrock Mapping - Geology	1	94.50
060897	1970	Exploration Activities of Norman H. Ursel Associates Ltd.	Rock - Geochemistry, Gamma-ray Spectrometry - Ground Geophysics, Prospecting - Other, Handblast - Trenching		

Related References					
Number	Title	Page(s)	Reference Type	Document Type	
ARMC0063 63	Correspondence Re: Teslin Explorations coal leases at Carmacks		Property File Collection	Miscellaneous Company Documents	
ARMC0063 65	Re: Visit to Carmacks Coal properties - Tantalus and Tantalus Butte		Property File Collection	Miscellaneous Company Documents	
ARMC0063 66	Claim map - Schedule "B"		Property File Collection	Geoscience Map (General)	
ARMC0063 67	Correspondence Re: Site tour of Carmacks Coal		Property File Collection	Miscellaneous Company Documents	
ARMC0063 68	Correspondence Re: Carmacks rehabilitation program - 1992		Property File Collection	Miscellaneous Company Documents	
ARMC0063 69	Claim map - Quarrying leases, coal mining leases, and lots and parcels		Property File Collection	Geoscience Map (General)	
ARMC0063 72	Claim map showing Yukon River and coal mining lease		Property File Collection	Geoscience Map (General)	
ARMC0063 73	Exploration drift map - 1972 - Tantalus Butte coal mine		Property File Collection	Geoscience Map (General)	
ARMC0063 74	Correspondence Re: Curragh Resources Inc. and Little Salmon - Carmacks Indian Band		Property File Collection	Miscellaneous Company Documents	
ARMC0063 87	Analysis of coal, air dried basis - Carmacks Coal		Property File Collection	Report	
ARMC0035 91	Summary of exploration and development work - 1978 - Various claims		Property File Collection	Report	
ARMC0035 96	Summary of exploration and development work - Tantalus Butte Mine		Property File Collection	Report	
ARMC0097 11	Geological cross sections - Carmacks Coal project		Property File Collection	Geoscience Map (General)	
ARMC0083 13	Plan map showing underground control survey - Tantalus Butte coal mine		Property File Collection	Geoscience Map (General)	
ARMC0095			Property File		

ARMC008204	Report on geophysical tests on Carmacks coal deposit		Property File Collection	Report
ARMC008214	Geological map of open pit area - Carmacks coal project- Tantalus Butte - Map 2		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC008215	1981 proposed mine plan map - Carmacks coal properties - Tantalus Butte mine - Map 1		Property File Collection	Geoscience Map (General)
ARMC008216	Cross-section no. 614.650 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008217	Cross-section no. 613.000N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008218	Cross-section no. - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008219	Cross-section no. 613.250 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008220	Cross-section no. 613.200N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008221	Cross-section no. 613.350N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008222	Cross-section no. 613.300N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008223	Cross-section no. 613.450N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008224	Cross-section no. 613.400N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008225	Cross-section no. 613.550 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008226	Cross-section no. 613.650 - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008227	Cross-section no. 613.500N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008228	Cross-section no. 613.600N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008229	Cross-section no. 613.700N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008230	Cross-section no. 613.800N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008231	Cross-section no. 613.900N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008232	Cross-section no. 614.00N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008234	Cross-section no. 614.200N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008235	Cross-section no. 613.700N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008236	Cross-section no. 613.750N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008237	Cross-section no. 613.850N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008238	Cross-section no. 613.950N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008239	Cross-section no. 614.050N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008240	Cross-section no. 614.150N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008241	Cross-section no. 614.300N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008242	Cross-section no. 614.400N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008243	Cross-section no. 614.500N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008244	Cross-section no. 614.600N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008245	Cross-section no. 614.250N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008246	Cross-section no. 614.350N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC008247	Cross-section no. 614.450N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)

ARMC0082 48	Cross-section no. 614.550N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC0082 49	Geology map of Tantalus Basin west half - Appendix 1		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0082 50	Plan map showing surface and underground - Tantalus Butte mine - Drawing no. 175		Property File Collection	Geoscience Map (General)
ARMC0082 51	Geological map of open pit area - Tantalus Butte coal mine - Map 3		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0082 52	Geological map of open pit area - 2 of 2 - Carmacks coal project- Tantalus Butte - Map 3		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0082 53	Carmacks topographic map		Property File Collection	Geoscience Map (General)
ARMC0082 54	V.L.F. electromagnetic survey map - Contours of Fraser filtered in phase - Carmacks coal project		Property File Collection	Geophysical Map
ARMC0082 55	Reconnaissance map - Pencil manuscript - Sheet 1 of 1 - 76-67		Property File Collection	Geoscience Map (General)
ARMC0082 58	Composite section map showing working area - underground plans - Tantalus Butte coal mine - Carmacks coal - Drawing no. WB 172A		Property File Collection	Geoscience Map (General)
ARMC0082 59	Composite plan map - Tantalus Butte mine - Drawing no. 171		Property File Collection	Geoscience Map (General)
ARMC0082 60	Vertical N-S long. section map - Tantalus Butte mine - Drawing no. 172		Property File Collection	Geoscience Map (General)
ARMC0082 92	Carmacks extension map - 115I-6 - Job No. 80-157		Property File Collection	Geoscience Map (General)
ARMC0082 93	Open pit area map - 1977 - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC0082 94	Topographic plan map - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (General)
ARMC0083 05	Reconnaissance map - pencil manuscript - Sheet 1 of 2 - 76-67 - Carmacks		Property File Collection	Geoscience Map (General)
ARMC0083 06	Reconnaissance map - pencil manuscript - Sheet 2 of 2 - 76-67 - Carmacks		Property File Collection	Geoscience Map (General)
ARMC0083 07	Carmacks topographic map - Job No. 77-114		Property File Collection	Geoscience Map (General)
ARMC0083 08	Preliminary plan map of Carmacks coal mine - Surface lots		Property File Collection	Geoscience Map (General)
ARMC0083 09	Reconnaissance map - Pencil manuscript - Drawing no. 72-210 - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (General)
ARMC0083 10	Geology map of Carmacks coal lease area, Yukon - Map no. 1		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0083 11	Plan map of survey of lots 23 and 24, Group 10 - Carmacks		Property File Collection	Geoscience Map (General)
ARMC0083 12	Field notes of resurvey of certain boundaries of lots 23 and 24 - Group 10, Carmacks - Drawing #52087		Property File Collection	Miscellaneous Company Documents
ARMC0082 33	Cross-section no. 614.100N - 1981 mining plan - Carmacks coal project		Property File Collection	Geoscience Map (General)
ARMC0083 14	Map - Coal leases in Carmacks area - Map No. 2		Property File Collection	Geoscience Map (General)
ARMC0083 15	Map 1 - Fall 1989 On-site inspection safety/reclamation - Carmacks Coal properties		Property File Collection	Geoscience Map (General)
ARMC0083 16	Plan map showing coal mining leases - Carmacks area		Property File Collection	Geoscience Map (General)
ARMC0082 57	Composite plan map of working area - Tantalus Butte coal mine - Drawing no. WB 171A		Property File Collection	Geoscience Map (General)
ARMC0086 92	Correspondence Re: Carmack coal leases - Geophysics		Property File Collection	Miscellaneous Company Documents
ARMC0086 94	Correspondence Re: Carmacks coal - geophysical response		Property File Collection	Miscellaneous Company Documents
ARMC0086 15	Report on geophysical tests on Carmacks coal deposit		Property File Collection	Report
ARMC0078 39	Geological map of open pit area - Tantalus Butte coal mine - Carmacks		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0078 42	Electromagnetic survey map - Contours of Fraser filtered in phase readings - Carmacks coal project		Property File Collection	Geophysical Map
ARMC0078 43	Electromagnetic survey map - profiles of in phase and quadrature readings - Carmacks coal project		Property File Collection	Geophysical Map
ARMC0078 44	Map 1 - 1981 proposed mine plan - Tantalus Butte mine		Property File Collection	Geoscience Map (General)

ARMC020332	Claim map - Sheet 115-I-1 - Carmacks - Carmacks coal leases		Property File Collection	Geoscience Map (General)
ARMC020334	Claim map - Sheet 115-I-1 - Carmacks coal leases		Property File Collection	Geoscience Map (General)

Drill core at YGS core library					
Number	Property	Year Drilled	Core Size	Photos	Data
72-H1	Tantalus Butte	1972	AQ	0	0
72-H2	Tantalus Butte	1972	AQ	0	0
68-2	Tantalus Butte	1968	BQ	0	0
68-3	Tantalus Butte	1968	BQ	0	0
68-5	Tantalus Butte	1968	BQ	0	0