

013554

March 3, 1978

Mr. James S. McKinney
Senior Geologist, Coal
Pan Ocean Oil Ltd.
1050 Three Calgary Place
355 Fourth Avenue S.W.
Calgary, Alberta
T2P 0J1

Dear Jim,

John Bruk asked me to reply to your letter re coal licences in the Bonnet Plume Basin. As we discussed in Calgary, the priority on our licences is pretty low and it seems unlikely that we will be prepared to spend drilling money on them this year. However, we are talking to some prospective partners on the licences and things could change. If and when they do, I will let you know immediately on drill use.

Thank you for the consideration.

Yours truly,

CYPRUS ANVIL MINING CORPORATION

JGS/cb

J. G. Simpson
Vice President, Exploration

c.c. J. Bruk

Pan Ocean Oil Ltd.

1050 Three Calgary Place 355 Fourth Avenue S.W. Calgary, Alberta, Canada T2P 0J1

Telephone: (403) 265-6211

Telex: 038-22681

*Copy given
to REGD
31 Jan*

January 26th, 1978

Mr. John Bruk
President
Cyprus Anvil Corporation
330 - 355 Burrard
Vancouver, B. C.
V6C 2G8

Dear John:

RE: Coal Exploration in the Bonnet Plume
Basin, Yukon Territory

Pan Ocean Oil Ltd. has been granted 22 Coal Exploration Licences in the Bonnet Plume Basin. It is our intention to conduct field geological work and reconnaissance diamond drilling on our licences during the 1978 exploration season.

Since you have two Coal Exploration Licences in the northern portion of the basin, I thought I would let you know of our plans in case you may have use for the drill later in the season after we have completed our holes. This could save both companies some mobilization monies.

Kindest regards,



James S. McKinney
Senior Geologist, Coal

JSM/rw

To J. G. Simpson

Date January 12, 1978

From R. P. Hill

Subject Re: STATUS REPORT; Dec. 31, 1977

The last three weeks of December were spent on vacation.

1) CARMACKS NORTH

Detailed examination of rotary cuttings logs, wireline logs and analytical results of coal cuttings suggests that it will be possible to elucidate the stratigraphy and structure of the sequence in the new area east of the open pit, and to tie it in to the remainder of the area. This work is continuing - completion is anticipated in about a month's time.

2) CARMACKS SOUTH

Profiles and contours for the EM-16 survey have been draughted at 1" = 200', and have been reduced to 1" = 400' and 1" = 800'. A detailed report is awaited, but the preliminary inference is that the survey has been successful in delineating layering and structure in the sequence, and may well be of help in tracing subcrop of the coal-bearing sequence.

3) CARMACKS LEASE SURVEY

Preliminary copies of a proposed amended version of the Coal Lease (Claim) Sheet 115-I-1 have been received from Hosford, Impey and Welter, and a revised copy has been returned to them for further amendment prior to submission to the Mining Recorder.

4) PEEL RIVER PROJECT

Analytical data received to date indicate that the Peel River "Lignite" is in fact subbituminous coal.

Typical data are:

Ash	18%	B.T.U/lb (raw)	9,000
Moisture	10%	B.T.U/lb (dry, mineral-matter free)	11,000
Volatiles	42%		
F. C.	30%	Equilibrium	26%
Sulphur	0.3%		

Coal from the new occurrence on Illyd Creek analyses as follows;

Ash	4.70%	B.T. U/lb (raw)	10,740
Moisture	9.29%	Equilibrium Moisture	16%
Volatiles	36.81%		
F. C.	49.20%		
Sulphur	0.22%		

This ranks it as subbituminous A.

SUMMARY OF EXPLORATION & DEVELOPMENT WORK PERFORMED IN 1977

Data submitted will aid in compilation of the Annual Yukon Mineral Industry Report - confidential information is not solicited

Was exploration work done in 1976? Yes No

Property Name: Peel River Coal Exploration Licences

Former Name (if old showing): _____

Mining District: Whitehorse Watson Lake Mayo Dawson

N.T.S. Map Sheet 106 E 14 Lat 65° 55' Long 135° 00'

Location Description and Mode(s) of Access 160 miles north of Mayo. Access by helicopter from Mayo.

Claim Name(s) Coal Exploration Licences Nos. 46 and 47 Total Claims _____

Owner(s) of Claims Cyprus Anvil Mining Corporation

Work financed by: Cyprus Anvil Mining Corporation

Address: 330, 355 Burrard Street, Vancouver, B.C. V6C 2G8

Mineral(s) of Economic Interest: Lignite

Geological Description of Occurrence: Lignite seams in Lower Cretaceous to Tertiary Upper Bonnet Plume Formation.

WORK DONE IN 1977

Geological Mapping:

Claims Mapped

Scale

All

1:250,000

Geochemistry:

Method

Claims Sampled

Nil

Geophysics:

Method

Claims Covered

Nil

Trenching and Stripping:

Area or Volume

Method

On Which Claims?

Nil

Drilling:

Type

Size

No. of
Holes

Total Footage
or metres

On Which Claims?

Nil

Results of work done: _____

Assessment Work Recorded in 1977:

Physical Work (to be recorded)

Geological Report

Geophysical Report

Geochemical Report

Drilling

Date: Nov 1, 1977

Signature: _____

R. P. Hill

Company: Cyprus Anvil Mining Corp.

Position: Geologist

J. G. Simpson

October 6, 1977

R. P. Hill

Peel River Coal Project

Reconnaissance during August revealed an occurrence of coal on Illtyd Creek, some 45 miles due south of the lignite on Peel River in the Bonnet Plume Basin.

The new coal is of somewhat higher rank than the Peel River lignite - possibly subbituminous to high volatile bituminous (see sample PR8). Two seams were discovered at outcrop; an upper seam approximately 20 feet thick of clean coal dipping 12 degrees southeast, and a lower seam which is incompletely exposed but which has a minimum thickness of 5 feet. The seams outcrop in cliffs above the creek, dipping away from the creek, and the mining situation appears moderately favourable.

According to the preliminary geological map of Norris (1974) this occurrence is within the Lower Bonnet Plume Formation, and is therefore slightly older than the Peel River lignite. This is borne out by two factors:

- (1) the higher rank of the coal,
- (2) the enclosing sediments, unlike those on Peel River, are consolidated and cemented, and hence relatively well indurated.

The area underlain by Lower Bonnet Plume Formation at this locality, as shown on the geological map of Norris, is considerable - at least 28 square miles - although at this stage it is impossible to estimate how much of this area is underlain by coal. (Note - 28 square miles x 25 feet = very approximately 700 million tons.)

From the initial reconnaissance, it appears that Illtyd Creek could be a better prospect than Peel River for two reasons:

- (1) higher rank of coal,
- (2) consolidated sediments, giving more attractive mining proposition.

The writer recommends that this area be protected with coal exploration licences, and plans for geological mapping next year or the year after be drawn up. Unfortunately, the occurrence is close to the corner of a claim sheet and, since exploration licences normally cover one quarter of a claim sheet, four licences may be required. However, licences covering less than the prescribed area have been issued in the past, and we should attempt to obtain these. The ground is apparently vacant - new claim sheets are awaited.

Peel River Coal Project

To cover the area, the following licences would be required:

1 full licence -	106-E-3, NE $\frac{1}{4}$ (approx. 39,260 acres)
3 half licences -	north half of 106-E-2, NW $\frac{1}{4}$ (approx. 19,620 acres)
	- south half of 106-E-6, SE $\frac{1}{4}$ (approx. 19,630 acres)
	- south half of 106-E-7, SW $\frac{1}{4}$ (approx. 19,630 acres)
	<hr/>
	TOTAL approx. 98,150 acres

Under the Territorial Coal Regulations, unwanted acreage may be relinquished after first year, which would reduce the area covered to about 30,000 acres. This area could be reduced further, depending upon the amount of geological information obtained (both by Cyprus Anvil and by the G.S.C.).

To hold this coal area under licence for a full term (three years) would cost as follows (approximately):

Year 1 -	98,150 acres @ 5 cents/acre =	\$ 4,907.50
Year 2 -	30,000 acres @ 10 cents/acre =	3,000.00
Year 3 -	30,000 acres @ 20 cents/acre =	6,000.00
		<hr/>
	TOTAL	\$13,907.50

R. P. HITT

RPH/cb



OTTAWA, Ontario K1A 0H4
September 15, 1977.

Cyprus Anvil Mining Corporation,
330 - 355 Burrard Street,
VANCOUVER, B.C.
V6C 2G8

Your file Votre référence

Our file Notre référence N-7740-346-9

Attention: T.J. Adamson

Dear Sirs:

Coal Exploration Licences 46 and 47,
Your letter July 7, 1977

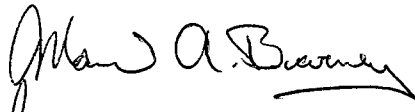
This is to inform you that your request to carry forward into the second year the underexpenditures on the above licences has been approved and your cash deposit of \$3,921.30 applied.

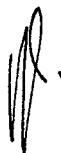
We have also checked the acreages remaining and since our figures are very close to those supplied by you, your figures have been used in calculating the second year work requirements as follows:

<u>Licence</u>	<u>Required Expenditure 1st Year</u>	<u>Acreage 2nd Year</u>	<u>Required Expenditure 2nd Year</u>	<u>Total Work Requirement</u>
46	\$1,959.35	29,390	\$2,939.00	\$4,898.35
47	1,964.50	9,823	982.30	<u>2,946.80</u>
			Total	\$7,845.15

The subject licences are now in good standing to July 22, 1978.

Yours sincerely,


P.M. Corrigan,
A/Head,
Mining Lands Section,
Mining Division.

OK. 

TOM. MARG - To FILE.

Cyprus Anvil Mining Corporation

330, 355 Burrard Street Telex 04508594
Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

July 7, 1977

Dr. H. W. Woodward
Assistant Director
Oil and Minerals Division
Northern Natural Resources and
Environment Branch
Department of Indian and
Northern Affairs
Room 554
400 Laurier West
Ottawa, Ontario K1A 0H4

Dear Dr. Woodward:

Re: Your File No. N-7740-346-9
(Coal Exploration Licences Nos. 46, 47)

Cyprus Anvil Mining Corporation is planning to carry out field work on Coal Exploration Licences Nos. 46 and 47 during this summer field season, in conjunction with some work scheduled for this area by the Institute of Sedimentary and Petroleum Geology (Geological Survey of Canada, Calgary, Alberta). The annual anniversary date of the above referenced Coal Exploration Licences is July 22nd. However, our field work will probably not proceed until sometime after the July 22 licence due date. Accordingly, as outlined in Sec. 39(5) of the Territorial Coal Regulations, application is hereby made to permit Cyprus Anvil to spend, during the second year of the licences, the amount initially required to be spent during the first year (a total of \$3,923.85), in addition to, during the second year, the normal required second year expenditure.

Also, in accordance with Sec. 41 and Sec. 42 of the Territorial Coal Regulations, application is hereby made to relinquish certain portions of both Coal Exploration Licences Nos. 46 and 47 at the end of the first year of the terms of these licences. Those lands to be relinquished and those lands to be retained are defined on the attached sketches and descriptions.

The acreage and second year work requirements for the retained portions of these licences has been calculated as follows:

... 2

CYPRUS ANVIL

Dr. H. W. Woodward

-2-

July 7, 1977

<u>Licence No.</u>	<u>Retained Acreage (acres)</u>	<u>Required Year 2 Expenditure</u>
46	29,390	\$2,939.00
47	9,823	982.30
	TOTAL	<u>\$3,921.30</u>

As required by Sec. 39(1)(b) of the Regulations, a cheque in the amount of \$3,921.30 is enclosed which is the deposit required to secure second year expenditures.

Yours truly,

CYPRUS ANVIL MINING CORPORATION

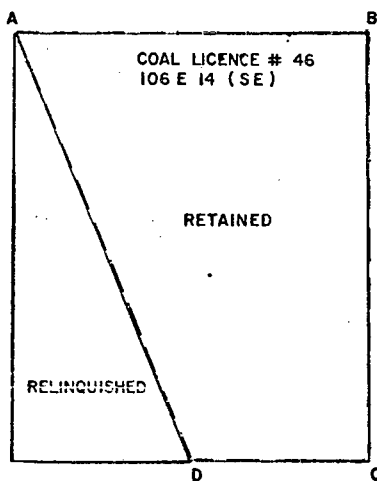
T. J. Adamson

TJA/cb
Encl.

CYPRUS ANVIL

COAL EXPLORATION LICENCE #46

Sketch and Description to Accompany
an Application Under Sec. 41 and Sec. 42
of the Territorial Coal Regulations



1: 250,000

Portion to be retained

- outlined in red on above sketch.
- retained area enclosed by a line beginning at "A" at the N.W. corner of the coal licence, and then running east to "B", the northeast corner of the licence, and thence running south to point "C" at the S.E. corner, and thence running west to point "D" being the midpoint of the south boundary of the licence, and thence running northwesterly to point "A".
- retained acreage: 29,390 acres.

Portion to be relinquished - all area of the coal licence excepting the retained area described above.

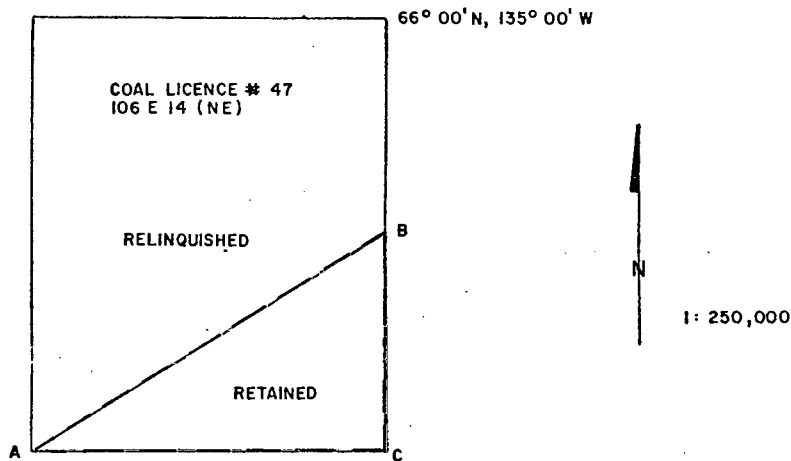
Cyprus Anvil Mining Corporation

330, 355 Burrard Street
Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

Telex 04508594

COAL EXPLORATION LICENCE #47

Sketch and Description to Accompany
an Application Under Sec. 41 and Sec. 42
of the Territorial Coal Regulations



Portion to be retained

- outlined in red on above sketch.
- retained area enclosed by a line beginning at "A" at the S.W. corner of the coal licence, running northeasterly to a point "B" being the midpoint of the eastern boundary of the licence, and thence south to "C" at the southeast corner of the licence area, and thence west to "A" at the starting point.
- retained acreage: 9,823 acres.

Portion to be relinquished - all areas of the coal licence excepting the retained area described above.

To

J. G. Simpson

Date

July 21, 1976

From

T. J. Adamson

Subject

Bonnet Plume Basin Coal OccurrenceLocation

- In the Bonnet Plume lowland basin, near the confluence of the Peel, Wind, and Bonnet Plume Rivers.
- 106-E-14.
- Approximately $65^{\circ}52'N$, $135^{\circ}09'15"W$.

References

- Coal discovered in 1893 and first described by C. Camsel, G.S.C. Annual Report, 1906.
- Mountjoy, E. W., "Upper Cretaceous and Tertiary Stratigraphy, Northern Yukon", G.S.C. Paper 66-16.
- Rouse, G. E. and Srivastava, S. K., "Polynological Zonation of the Bonnet Plume Formation", Canadian Journal of Earth Sciences, Vol. 9, 1972.
- Norris, D. K., G.S.C. Open File 279, 1974.
- Norris, D. K., Personal Communication, 1976.

Description

Coal beds (lignite?) to 40 feet thick are known to occur in Paleocene sediments along the Peel River on map sheet 106-E-14. Recent geological investigations have been carried out in this area by Dr. D. K. Norris of the G.S.C., Calgary. A G.S.C. Paper describing this work is now in preparation for release during the spring of 1977.

Norris, on the basis of very sparse surface exposure, has "guesstimated" a tonnage potential for coal of 1.5 to 2 billion tons in an area of about 30 square miles, in seams greater than 5 feet thick and to a maximum depth of 400 feet. The coal occurs in a synclinal structure with gently dipping limbs. The degree of complexity introduced by faulting is uncertain.

Norris has a pending G.S.C. "AFE" requesting funds for a diamond drilling program costing \$200,000, to further define the coal resources of this area. He expects that this project will be approved for the summer of 1977 or 1978.

... 2

At the present time, none of the area underlain by coal is held under either a coal exploration licence or coal lease. Norris' tonnage estimate and drilling plans are not widely known. Norris indicated that at least one other major company has recently expressed interest in the area and is aware of the same information as we are.

Recommendation

Although remote, this deposit has the potential to be a major future energy source. It is within 55 miles of the Dempster Highway and 70 miles of the Crest Iron deposit.

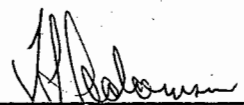
I think that unless we act now, it is very probable that the coal area will be acquired by some other company, as the government drilling plans become known.

I recommend that two coal exploration licences, covering the area of interest, be staked. These licences, unless terminated early, would be in force for three years. At the beginning of each year, a security deposit is made, in the amount of \$.05/acre for the first year, \$.10/acre for the second year, and \$.20/acre for the third year. This deposit is forfeited if exploration work to that amount is not made during the year. Licences can only be acquired in 1/4 mineral claim staking sheet blocks (about 40,000 acres) but, after the first year, any unwanted portion of the licence can be relinquished. Therefore, to hold the coal area of the two licences, for the three-year term, would cost as follows:

Year 1	-	79,066 acres @ \$.05/acre	-	\$ 3,953.00
Year 2	-	27,673 acres @ \$.10/acre	-	2,767.00
Year 3	-	27,673 acres @ \$.20/acre	-	<u>5,535.00</u>
				\$12,255.00

The G.S.C. drilling proposal has not yet received government approval. If the G.S.C. do proceed with this program, they would be under no obligation to provide us with any of the acquired data. However, during a recent coal drilling project in Saskatchewan on which a large percentage of the drilling was on leased land, leaseholders were generally provided with much of the data pertaining to their individual leases, on an informal data-trade basis, although the results of the overall drilling project have not been made public at this time.

Although any coal development in the Bonnet Plume Basin is many years into the future, it is possible that the proposed government drilling project may help us in defining a small area of large tonnage potential that could reasonably be held for the long term.



T. J. Adamson

TJA/cb