

NORCO RESOURCES LTD.
Bowron River Mines

TABLE 1. ANALYSIS OF FEED SAMPLE continued

MINERAL ANALYSIS OF ASH:

SiO₂ %
Al₂O₃ %
CaO %
MgO %
Fe₂O₃ %
Na₂O %
K₂O %
TiO₂ %
P₂O₅ %
SO₃ %

ASH FUSIBILITY:

Oxidizing
Atmosphere

Reducing
Atmosphere

Initial Deformation Temperature
Softening Temperature (Spherical)
Softening Temperature (Hemispherical)
Fluid Temperature

OTHER TESTS:

Calorific Value 8,310 BTU/lb.
FSI N.A.
HGI 58.0

00016(01)

NORCO RESOURCES LTD.
Bowron Mines Ltd.

TABLE 2. ANALYSIS OF PRODUCTS AFTER WASHING AT EMR PILOT PLANT continued

MINERAL ANALYSIS OF ASH:

	<u>Clean Coal</u>	<u>Middling</u>
SiO ₂ %		
Al ₂ O ₃ %		
CaO %		
MgO %		
Fe ₂ O ₃ %		
Na ₂ O %		
K ₂ O %		
TiO ₂ %		
P ₂ O ₅ %		
SO ₃ %		

ASH FUSIBILITY:

	<u>CLEAN COAL</u>		<u>MIDDLING</u>	
	<u>Reducing Atmosphere</u>	<u>Oxidizing Atmosphere</u>	<u>Reducing Atmosphere</u>	<u>Oxidizing Atmosphere</u>
Initial Deformation Temp.				
Softening Temp. (Spherical)				
Softening Temp. (Hemispherical)				
Fluid Temperature.				

OTHER TESTS:

	<u>CLEAN COAL</u>	<u>MIDDLING</u>
Calorific Value (BTU/lb)	12,360	8,630
FSI	1/2	N.A.

NORCO RESOURCES LTD.

Bowron River Mines

TABLE 4. FLOAT-SINK ANALYSIS OF + 28 MESH FRACTIONS OF PRODUCTS

SP. GR.	WT. %			
	CLEAN COAL	MIDDLING	COARSE REJECT	FINE REJECT
- 1.25	0.44 ()	--	--	0.19 ()
1.25 - 1.30	18.07	22.71	3.23	2.40
1.30 - 1.35	63.51	15.91	4.32	15.92
1.35 - 1.40	7.42	0.31	5.53	6.32
1.40 - 1.50	5.67	7.28	0.47	9.16
1.50 - 1.60	1.87	2.14	3.36	9.41
1.60 - 1.80	1.28	5.04	6.78	16.68
1.80 - 2.00	0.62	7.35	7.90	15.66
+ 2.00	1.12 ()	39.26 ()	68.41 ()	24.26 ()
TOTAL	100.00	100.00	100.00	100.00

Figures in Parenthesis are the Sp.Gr. of the fractions.

NORCO RESOURCES LTD.
Bowron River Mines

TABLE 5. FLOAT-SINK ANALYSIS OF 28 MESH x 150 MESH FRACTIONS OF PRODUCTS

SP. GR.	WT. %			
	CLEAN COAL	MIDDLING	COARSE COAL	FINE COAL
- 1.25	0.49 ()	0.73 ()	0.33 ()	0.35 ()
1.25 - 1.30	29.45	24.78	10.03	2.59
1.30 - 1.35	43.66	24.49	14.45	21.82
1.35 - 1.40	8.84	5.83	2.17	8.20
1.40 - 1.50	5.33	4.37	2.17	6.64
1.50 - 1.60	3.89	3.50	2.34	8.59
1.60 - 1.80	2.36	4.66	3.68	8.16
1.80 - 2.00	1.56	4.96	5.68	7.17
+ 2.00	4.42 ()	26.68 ()	59.15 ()	36.48 ()
TOTAL	100.00	100.00	100.00	100.00

Figures in Parenthesis are the Sp. Gr. of the fractions.

TABLE 6. ASHES OF 150 M x 0 FRACTIONS OF PRODUCTS

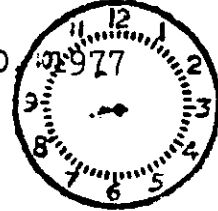
	<u>CLEAN COAL</u>	<u>MIDDLING</u>	<u>COARSE REJECT</u>	<u>FINE REJECT</u>
ASH %	30.12	22.29	38.94	33.87

NORCO RESOURCES LIMITED

#711, 850 West Hastings Street
Vancouver, B.C. V6C 1E2

JAN 21 '77 AM

January 20



DEPT. OF MINES
AND PETROLEUM RESOURCES

Mr. A.R. Corner,
Administrator for Coal,
The Dept. of Mines and
Petroleum Resources,
Mineral Resources Branch,
Parliament Buildings,
Victoria, B.C. V8V 1X4

Dear Mr. Corner:

re: Extension of Term of Coal Licences
#148, 162 & 163 - Norco Resources Ltd.

In reply to your letter dated January 11, 1977, I am pleased to enclose for your examination the analytical report of Cyclone Engineering Sales Ltd. on the "Clean" and "Middling" fractions of our 11 ton bulk sample forwarded to the Department of Energy Mines and Resources' Western Laboratories, Edmonton, Alberta in late September, 1976. Approximately 4 tons of the sample were discarded as rejects and 7 tons are being retained as Clean and Middling fractions.

A summary report is expected from the Department of Energy Mines and Resources but we hope the enclosed data will permit your immediate examination of the report of work done during 1976.

We will continue to supply you with all reports and relevant data on the Bowron Coal deposit as received by our office.

Yours very truly,

M.M. Menzies, P.Eng.,
President.

This report forms part of the report entitled "Bowron River COAL MINE - DEWATERING AND BULK SAMPLING, SEPT, 1976"

00016(02)

Feb 24/1977

615

MMM/rbb
Encl.

016

REFERRED TO	DATE	INITIAL
C.G.C.		
D.C.G.C.	1/11	
G.C.		
	1/11	
FILE NO.		
FILING CLERK		



SEPARATION OF BULK MATERIALS

Manufacturing, Engineering, Testing Services

9751 - 51 Avenue
Edmonton, Alberta T6E 4Z5
Telephone: (403) 436-1385

Cable Address:
Cyclone, Edmonton
Telex: 037-3793

Ref: S1-216

January 13, 1977

Mr. Morris M. Menzies, P. Eng.
President
Norco Resources Ltd.
711 Credit Forcier Building
850 West Hastings Street
Vancouver, B. C.
V6C 1E2

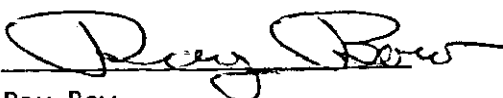
Dear Sir:

Enclosed please find a partial report of analyses performed on samples of test products. This represents all results which are completed to this date. The remaining information will be sent as soon as it is available.

If you have any questions or comments, please do not hesitate to contact us.

Yours very truly,

CYCLONE ENGINEERING SALES LTD.

Per: 
Ray Bow

RB/ejr

Encl.

cc Mr. L. Tranholme
Mr. H. S. "John" Haslem

NORCO RESOURCES LTD.

Bowron River Mines

TABLE 1. ANALYSIS OF FEED SAMPLE

PROXIMATE ANALYSIS:

Ash %	36.10
R.M. %	2.24
V.M. %	30.99
F.C. %	30.67

ULTIMATE ANALYSIS:

Ash %	36.10
Carbon %	48.59
Hydrogen %	3.75
Nitrogen %	0.90
Sulphur %	0.97
Oxygen % (by difference)	9.69
TOTAL	100.00

NORCO RESOURCES LTD.
Bowron River Mines

TABLE 2. ANALYSIS OF PRODUCTS AFTER WASHING AT EMR PILOT PLANT

A. CLEAN COAL AND MIDDLING

PROXIMATE ANALYSIS:

	<u>Clean Coal</u>	<u>Middling</u>
Ash %	9.79	35.00
R.M. %	2.54	2.11
V.M. %	34.93	26.99
F.C. %	52.74	35.90

ULTIMATE ANALYSIS:

Ash %	9.79	35.00
Carbon %	67.89	47.48
Hydrogen %	4.91	3.66
Nitrogen %	1.15	0.87
Sulphur %	0.90	0.87
Oxygen % (by difference)	15.36	12.12
TOTAL	100.00	100.00

NORCO RESOURCES LTD.

Bowron River Mines

TABLE 2. ANALYSIS OF PRODUCTS AFTER WASHING AT EMR PILOT PLANT continued

B. REJECTS:

	<u>Coarse Reject</u>	<u>Fine Reject</u>
Ash %	68.67	37.40
Calorific Value (BTU/lb.)	4,580	8,050

TABLE 3. SIZE CONSIST OF PRODUCTS

SIZE	WT. %			
	Clean Coal	Middling	Coarse Reject	Fine Reject
+ 3/8"	.00	1.42	1.32	0.00
3/8" x 28 mesh	49.85	94.76	89.46	15.18
28 m x 150 mesh	42.90	3.56	8.95	74.96
150 m x 0	7.25	0.26	0.27	9.86
TOTAL	100.00	100.00	100.00	100.00