

~~CONFIDENTIAL~~



Crows Nest Resources

Eau Claire Place, 525 - 3rd Avenue S.W., Calgary, Alberta (403) 232-4355 **LIMITED**
P.O. Box 2699, Station M, Calgary, Alberta T2P 2M7 Telex 03-822505

February 10, 1986

Ministry of Energy, Mines & Petroleum Resources
617 Government Street
Victoria, B.C.
V8V 1X4

Attention: Mr. P. Hagen
Coal Administrator

Dear Sir:

Enclosed please find our report on the Zymoetz Project.

This report has been prepared by Mr. S. Cameron, who is employed by Crows Nest Resources Limited as a geologist.

Mr. S. Cameron, B.Sc., in Geology graduated from the University of Calgary in 1981. Prior to graduation Mr. Cameron worked as an assistant for a major exploration company in the North West Territories. He also worked for Crows Nest Resources Limited as a geological assistant in 1980. Mr. Cameron has been employed by Crows Nest Resources Limited as a Geologist since May 1981.

In my opinion, Mr. Cameron is fully qualified, by training and experience to prepare this report and this account of work done under his direct supervision.

Yours very truly

H.G. Rushton
Vice President - Development

Enclosure

~~CONFIDENTIAL~~

ZYMOETZ RIVER GEOLOGICAL REPORT

NTS MAP SHEET: 93L/13
LATITUDE/LONGITUDE: 54° 30'/127° 45'
COAL LICENCES: Group 322
4252, 4253, 4254, 4255
HELD BY: SHELL CANADA LIMITED
OPERATED BY: CROWS NEST RESOURCES LIMITED
EXPLORATION PERIOD: SEPTEMBER, 1985
REPORT DATE: OCTOBER, 1985
GEOLOGIST: STEVE CAMERON
SUBMITTED 10-11-86

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STRUCTURE CONTOUR MAP	1:10 000	6 ✓
CROSS SECTIONS (A-A' and B-B')	1:10 000	7 ✓
GEOPHYSICAL LOGS	1:20	8 ✓
DRILL CORE DESCRIPTIONS		9 ✓
COAL QUALITY CONFIDENTIAL		10 ✓
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1.0 SUMMARY

The Zymoetz River Coal Project is contained within four coal licences. These licences are held by Shell Canada Ltd. and operated by Crows Nest Resources Ltd.

The 1985 drilling program included the preparation of two drill sites and drilling two NQ diamond drill holes. The coordinates of the drill holes were located by air photos. The total expenditure for 1985 was \$61,809.65. All of this amount is being applied to the coal licences covered by this report.

2.0 INTRODUCTION

2.1 Location

Enclosure 1 - location and Index map. The property is located at the confluence of the Zymoetz river and Coal Creek.

N. Lat. 54° 30'

W. Long. 127° 45'

2.2 Tenure

The Zymoetz River Licences are contained in group number 322. The coal licence numbers included in this group are 4252, 4253, 4254 and 4255.

3.0 REGIONAL GEOLOGY

Mesozoic successor basins developed in the Intermontane Belt between the Columbian and Pacific Orogens in the B.C. Cordillera. These deeply subsiding troughs usually had both marine and fresh water depositional environments. Coal-bearing clastic sequences also accumulated in areas of dip-slip and strike-slip faulting in the troughs.

The Skeena Group successor basin is filled with interbedded marine and non-marine sedimentary and volcanic strata. This assemblage was deposited on the folded and faulted terrane of the Bowser Lake and older groups such as the Hazelton. Sediments of the Skeena Group are distinguishable from the Bowser Lake and Hazelton sediments by the presence of fine detrital muscovite. "In the Late Jurassic to Early Cretaceous, prior to deposition of the Skeena Group sediments, the Hazelton Group underwent a period of uplift, deformation and erosion. During the mid Early Cretaceous, the sea readvanced from the west, in the area of Skeena Valley, inundating the non-marine, Late Lower Cretaceous coal basins such as Telkwa and Lake Kathlyn. The sediments of the Skeena Group were derived from an uplifted Pinchi-belt - Columbian Orogen. They were deposited in a southwesterly direction, across the Skeena Arch, which apparently had little influence on the shape of the basin receiving the Skeena Clastics".¹

¹ Tipper H.W. and Richards T.A., Jurassic Stratigraphy and History of North Central British Columbia, 1976, page 7.

4.0 ZYMOETZ GEOLOGY

4.1 Stratigraphy

The basement rocks of the Zymoetz property consist of Upper Jurassic/Lower Cretaceous volcanics of the Hazelton Group. The volcanics are unconformably overlain by Cretaceous sediments of the Skeena group. These sediments are composed of conglomerate, sandstone, siltstone, shale, mudstone, coal and minor lava flows. Younger intrusives in the form of dykes, sills and stocks are often present.

The Skeena sedimentary section at Zymoetz River varies in thickness but probably does not exceed 300 meters. A basal conglomerate overlies the basement volcanics. At least five coal seams are present with an aggregate coal thickness ranging from 4 meters to 8 meters. These seams vary in thickness and are not laterally extensive. 1985 drilling indicates that the seams pinch out to the north as well as to the south. All of the economic coal seams are in the Coal Creek area, and are contained in the lower part of the Skeena section.

4.2 Structure

In the Coal Creek area of the Zymoetz property, the section dips to the west at an average 25°. To the West (down dip), the Skeena sediments are in fault contact with the Hazelton volcanics. The area of interest is truncated to the north by a high angle fault (normal or reverse). To the south and east the underlying Hazelton Group outcrops. (See Geology Map)

5.0 SUMMARY OF PREVIOUS WORK

Work done in 1979

- 1:10 000 scale geological mapping
- Diamond drilling (two holes)
- Location survey of diamond drill holes
- Drill site reclamation

No exploration work was performed in 1980.

Work done in 1981

- 1:10 000 scale geological mapping
- Additional reclamation of 1979 drill sites

No exploration work was performed in 1982.

Work done in 1983

- One diamond drill hole
- Drill site reclamation

Work done in 1984

- Two diamond drill holes
- Drill site reclamation

6.0 WORK DONE IN 1985

- 5,000 scale mapping
- Two diamond drill holes

7.0 MINEABILITY

On the Zymoetz property five seams can be correlated over a strike length of approximately half a kilometer. The coal seams appear to be limited to the area directly adjacent to Coal Creek in the center of the licence block. The coal seams are dipping at an average 25° into the topography and have a limited strike length. The 1985 drilling program did not prove any additional reserves. It is estimated that there is less than one million tonnes in place of surface mineable coal at ratios less than 7m³/raw tonne.

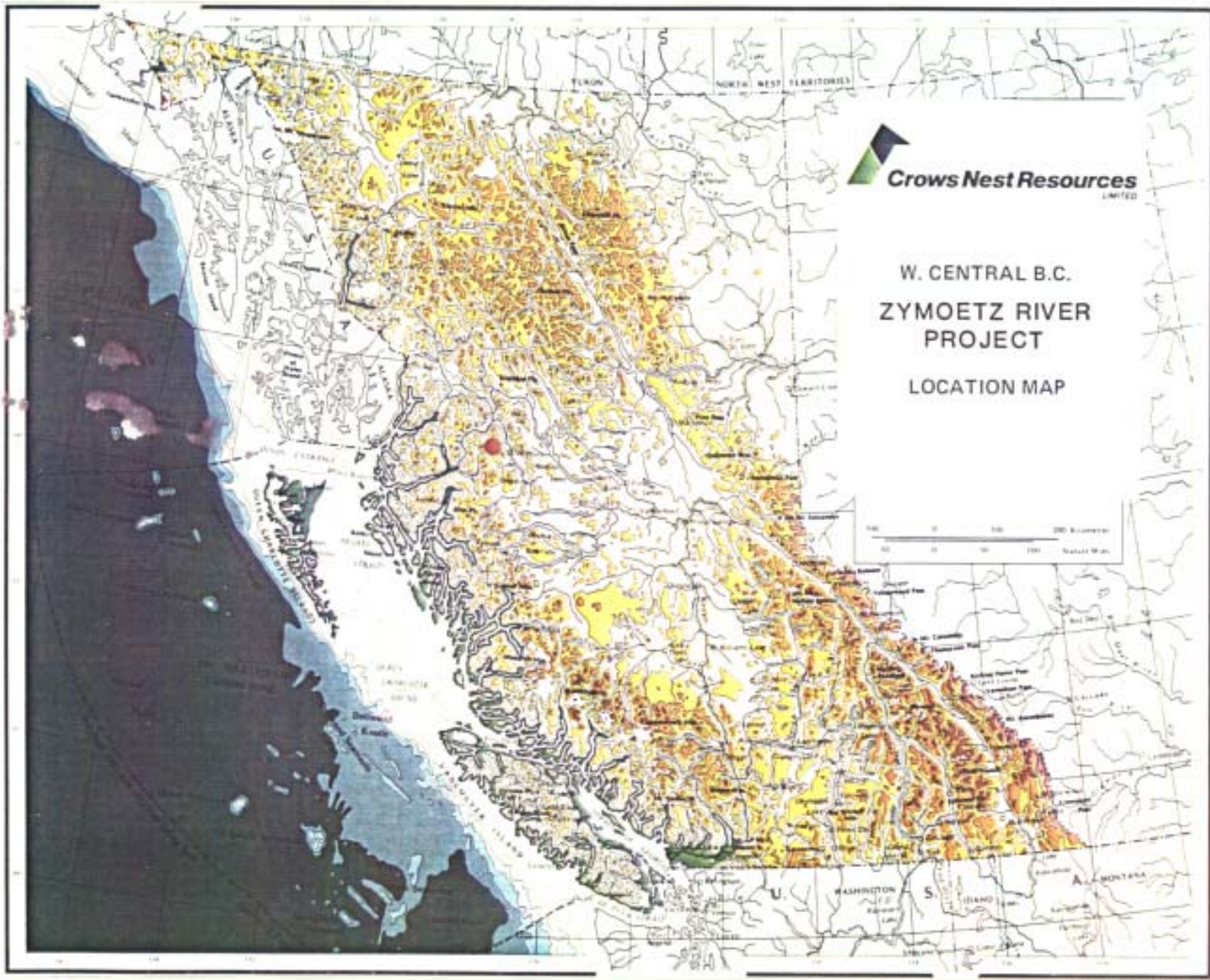
8.0 COAL QUALITY

Coal core samples were obtained from 2 NQ3 diamond drill holes.

The Zymoetz coal is ranked as high volatile A Bituminous by ASTM standards. Incremental results for each hole can be found in Enclosure 8.

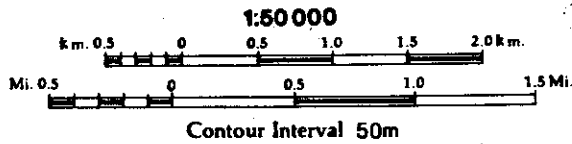
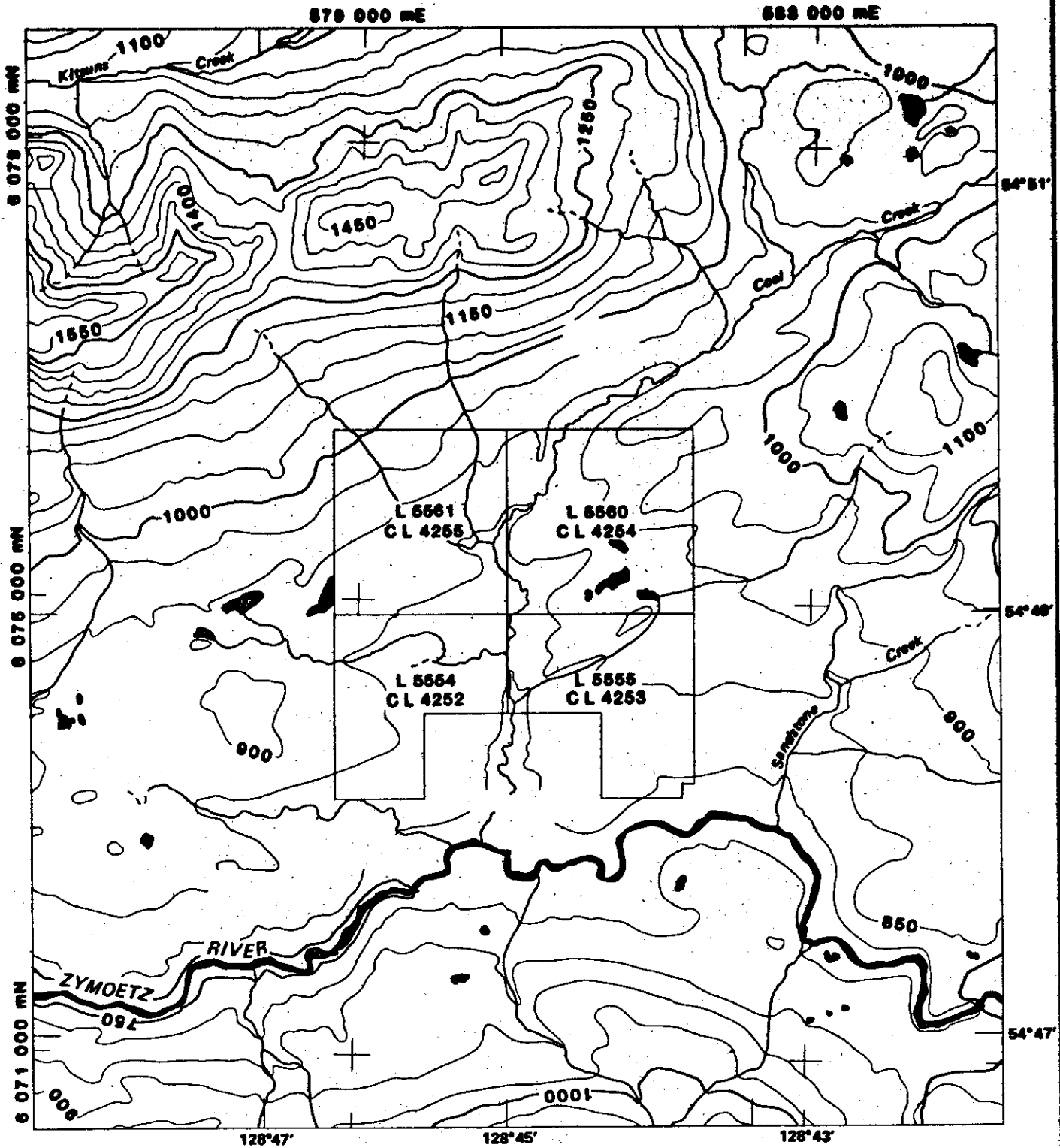
9.0 REFERENCES

- Dowling, D.B. - 1915: Coal Fields of British Columbia, Canada Dept. of Mines, No. 57, Geological Series, pp. 167-189.
- Eisbacher, G.H. - 1974: Evolution of Successor Basins in the Canadian Cordillera, Society of Economic Paleontologists and Mineralogists, Special Publication 19.
- Eisbacher, G.G. - 1981: Late Mesozoic - Paleogene Bowser Basin Molasse and Cordilleran Tectonics, Western Canada, Geological Association Canada, Special Paper #23.
- Handy, D.L. - 1979: Geological Report - Smithers Area Coal Prospects, Crows Nest Resources Limited.
- Handy, D.L. and Cameron, S.J. - 1981: Geological Report - Smithers Area Coal Prospects, Crows Nest Resources Limited.
- Handy, D.L. and Cameron, S.J. - 1983: 1983 Zymoetz River Geological Report.
- Handy, D.L. and Cameron, S.J. - 1984: 1984 Zymoetz River Geological Report.
- Koo, J. and Matheson, A. - 1983: Economic Coal Potential of the Southern Bowser Basin in West Central British Columbia, CIM District 6 Meeting, Smithers, B.C., Paper No. 22.
- Long, D.G.F. - 1981: Dextral Strike Slip Faults in the Canadian Cordillera and Depositional Environments of Related Fresh-Water Intermontane Coal Basins, Geological Association of Canada, Special Paper #23.
- Handy, D.L. and Richards, T.A. - 1976: Jurassic Stratigraphy and History of North Central British Columbia, Geological Survey of Canada, Bulletin 270.



W. CENTRAL B.C.
ZYMOETZ RIVER
PROJECT
LOCATION MAP






Reference map produced by the Surveys and Mapping Branch, Department of Energy, Mines and Resources in 1973.

Legend

Road; Highway, Main road	—————
Road; Loose surface, Dry weather	—————
Track or trail	- - - - -
Railway	—+—+—+—+—+—
River	~~~~~
Stream	~~~~~
Contours	~~~~~ 750
Licence boundary	—————

T.N.
G.N.

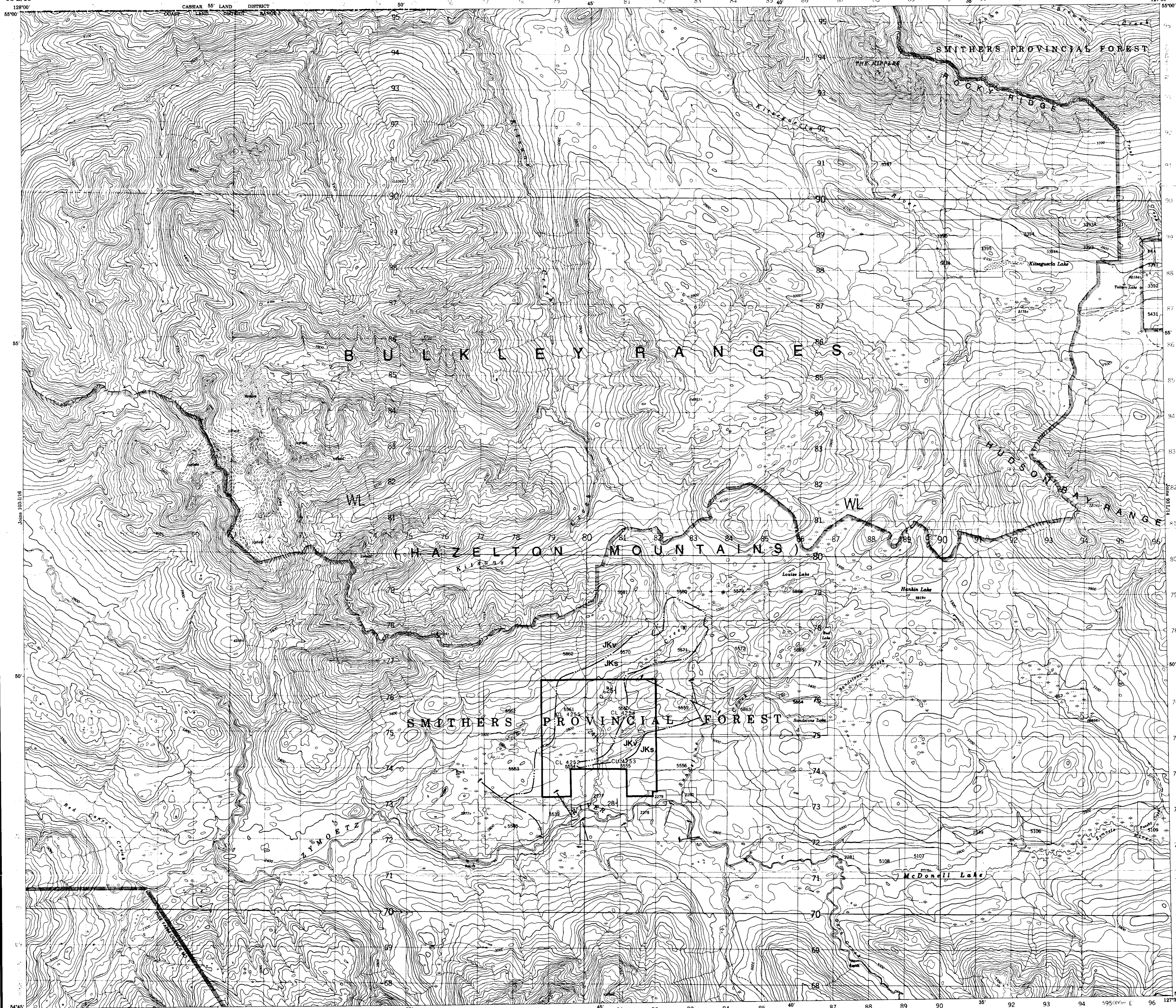
 **Crows Nest Resources Limited**

ZYMOETZ RIVER PROJECT

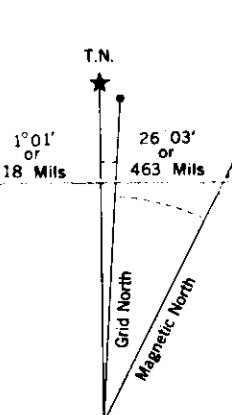
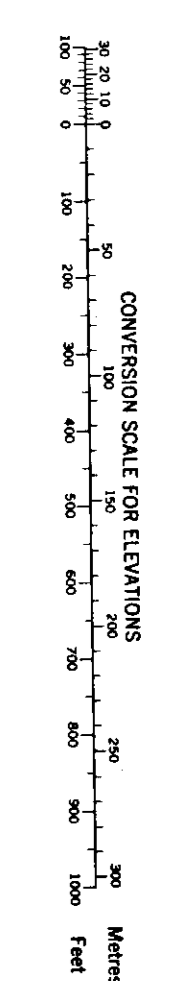
ENCL 2

LAND MAP

NTS-93L/13 UTM ZONE II

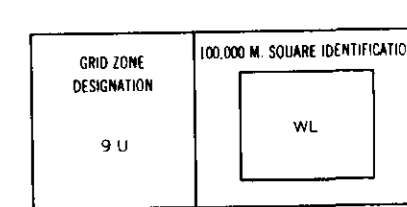


Refer to this map as: 93 L/13 EDITION 1 MCE SERIES A 721

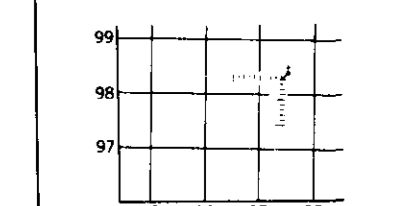


Use diagram only to obtain numerical values. APPROXIMATE MEAN DECLINATION FOR CENTRE OF MAP. Annual change decreasing 3.2'

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9



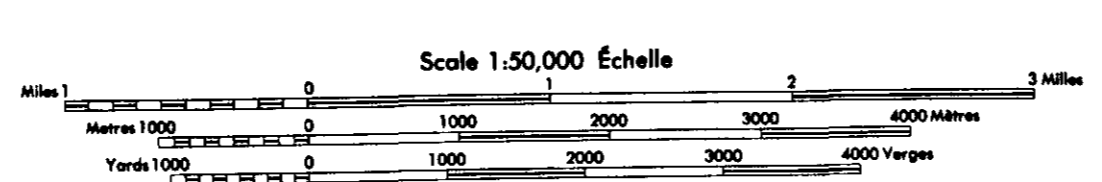
EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES. THE FOLLOWING GRID REFERENCE IS A SQUARE UNIT AND DOES NOT REFER TO A POINT ON THIS MAP.



REFERENCE POINT CHURCH (see above). EASTING: Road number on grid line immediately to left of point. Estimate tenths of a square from this line eastward to point. NORTHING: Road number on grid line immediately below point. Estimate tenths of a square from this line northward to point. EXAMPLE MILITARY GRID REFERENCE 975884. Nearest similar grid reference (100,000 metres (about 32 miles)).

Produced, 1970, by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, from aerial photographs taken in 1968. Field surveys 1968. Printed 1974. Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer. © Canada Copyright Reserved 1974.

Roads: loose or stabilized surface, all weather; loose surface, dry weather and unclassified streets; cart track; trail or portage. Routes: gravel; aggregate; loose surface; gravel; heavy traffic; runs north class; gravel; heavy traffic; runs north class; gravel; heavy traffic; runs north class.



This Provisional Map is equivalent to a standard map in accuracy of content. Some names on this map are not yet official. Corrections or additions are invited by the Surveys and Mapping Branch. CONTOUR INTERVAL, 100 FEET (Elevations in Feet above Mean Sea Level; North American Datum 1927; Transverse Mercator Projection).

- GEOLOGICAL LEGEND**
- JKs - Jurassic/Cretaceous Sediments
 - JKv - Jurassic/Cretaceous Volcanics
 - KTi - Cretaceous/Tertiary Intrusives
 - Geological contact
 - - - Geological fault
 - f - Bedding attitude
 - ~ ~ ~ Syncline

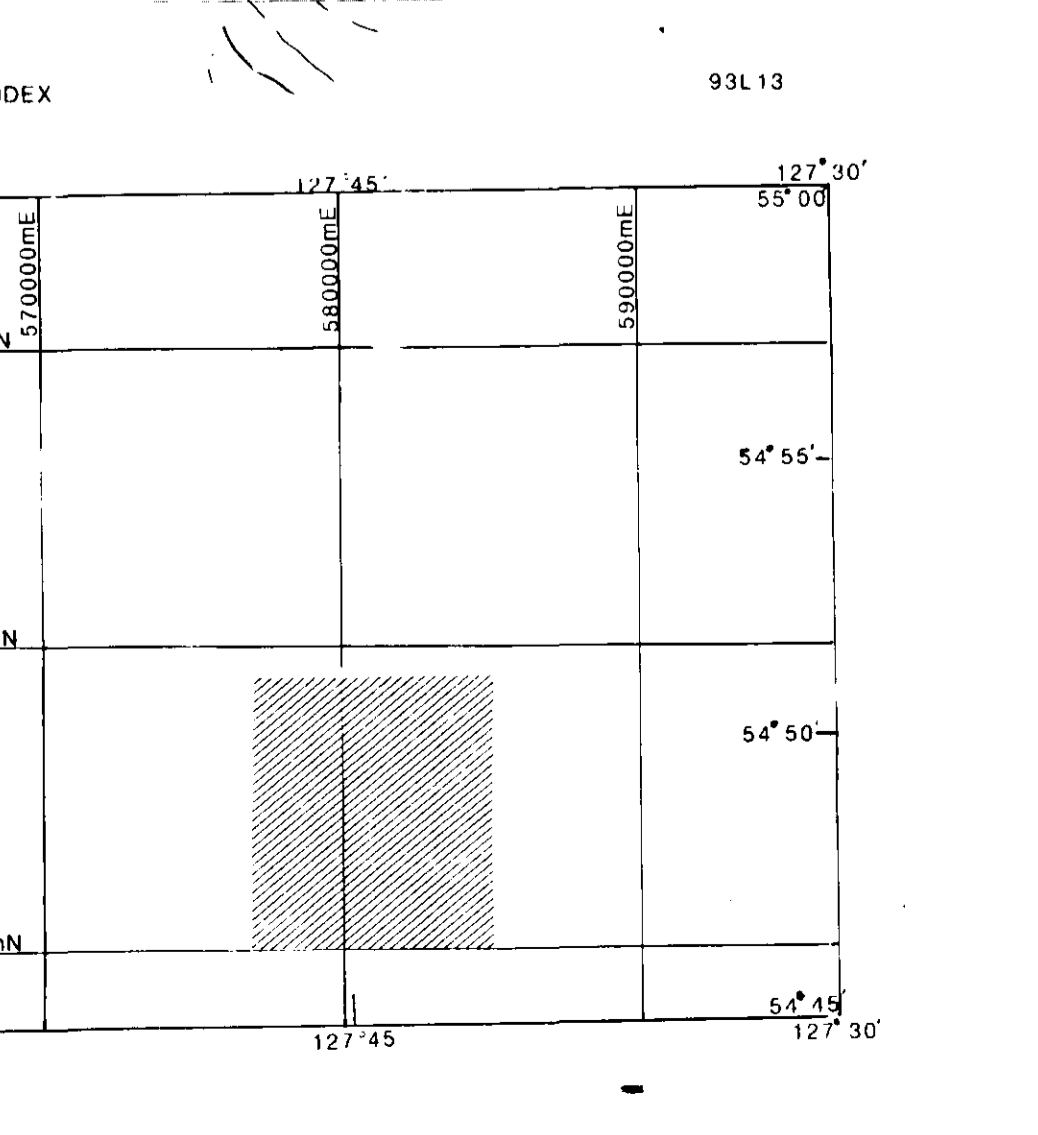
Crows Nest Resources Limited
EXPLORATION

WEST CENTRAL BRITISH COLUMBIA
SMITHERS PROJECT
ZYMOETZ RIVER
ENCL 3

715
pt 1
①

GEOLOGY COMPILATION MAP

NTS 93L/13 UTM ZONE 9
AUTHOR: S. CAMERON SCALE: 1:50,000 ENCLOSURE No.:
DATE: DEC 15, 1981 REVISED: 85-11 DRAWING No.: S15U01
To Accompany 1983 GEOLOGICAL REPORT



LEGEND

Track or Trail
Trees
Lot Corners
Spot Height
Contours
Depression Contour

River
Intermittent Stream
Lake
Sand

Note: Lot Corners Approx. Only

MAP PROJECTION: UNIVERSAL TRANSVERSE MERCATOR
CENTRAL MERIDIAN REFERENCE 129 W. ZONE 9

NOTE: PHOTOGRAMMETRIC MAPPING BASED ON CONTROL
TAKEN FROM NTS SHEET 93L13.

PREPARED BY: AERO GEOMETRICS LTD

DATE OF PHOTOGRAPHY
Topography 1974
Planimetry 1974 & 1981
Compilation 1978-1982 Cartography 1982

SCALE: 1:10000

CONTOUR INTERVAL: 10 METRES

METRES 200 400 600 800 1000 METRES

LEGEND

JKs UPPER JURASSIC/LOWER CRETACEOUS SEDIMENTS
JKv UPPER JURASSIC/LOWER CRETACEOUS VOLCANICS
Cretaceous/Tertiary Intrusive
BEDDING ATTITUDE
OUTCROP
DEFINED FAULT
POSSIBLE FAULT
ANTICLINE
DIAMOND DRILLHOLE

HAZELTON GROUP

Crows Nest Resources Limited

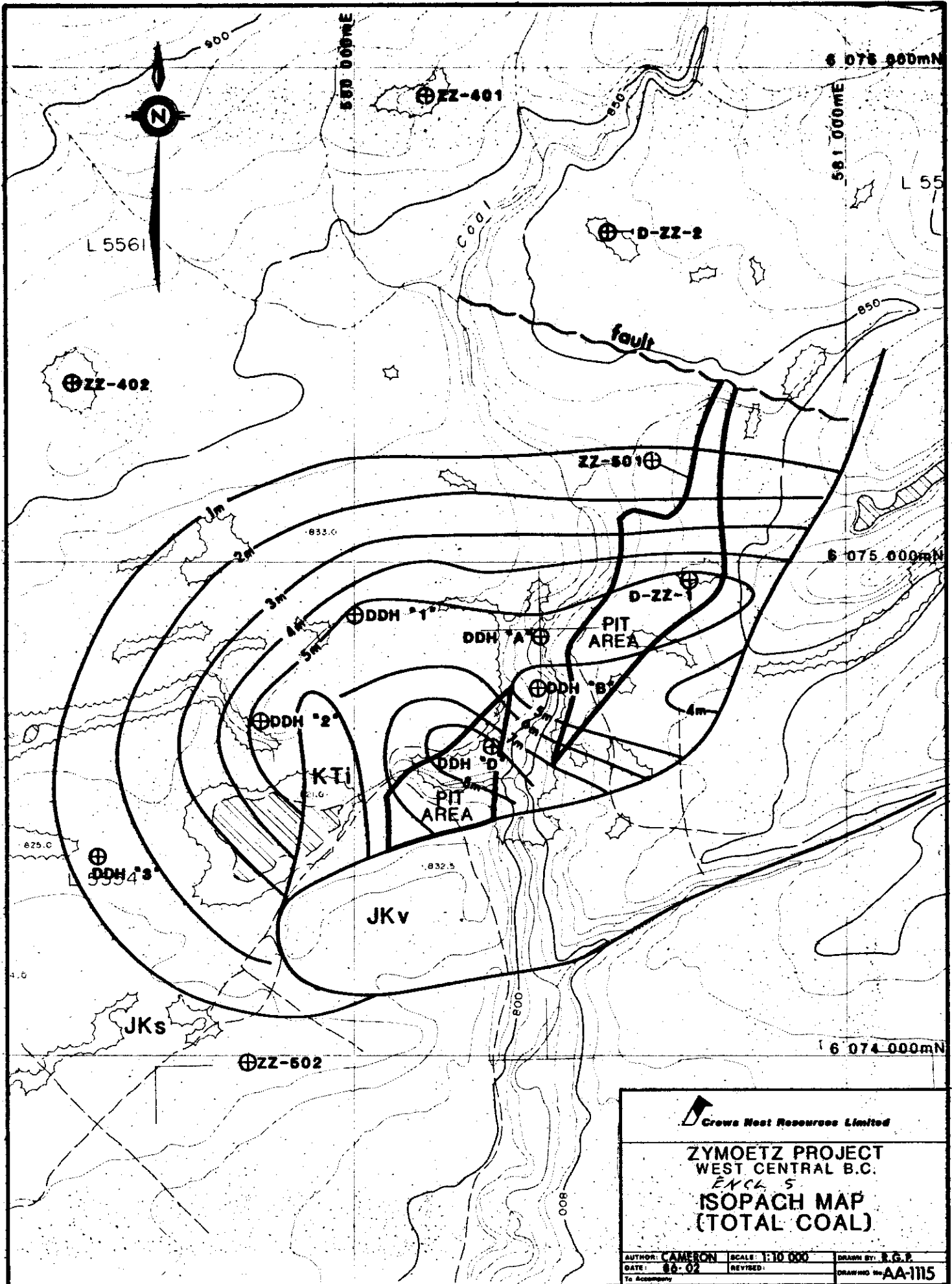
ZYMOETZ PROJECT
WEST CENTRAL B.C.


ENCL H

GEOLOGY MAP 715 pt. 1

NTS-93L/13 UTM ZONE 9

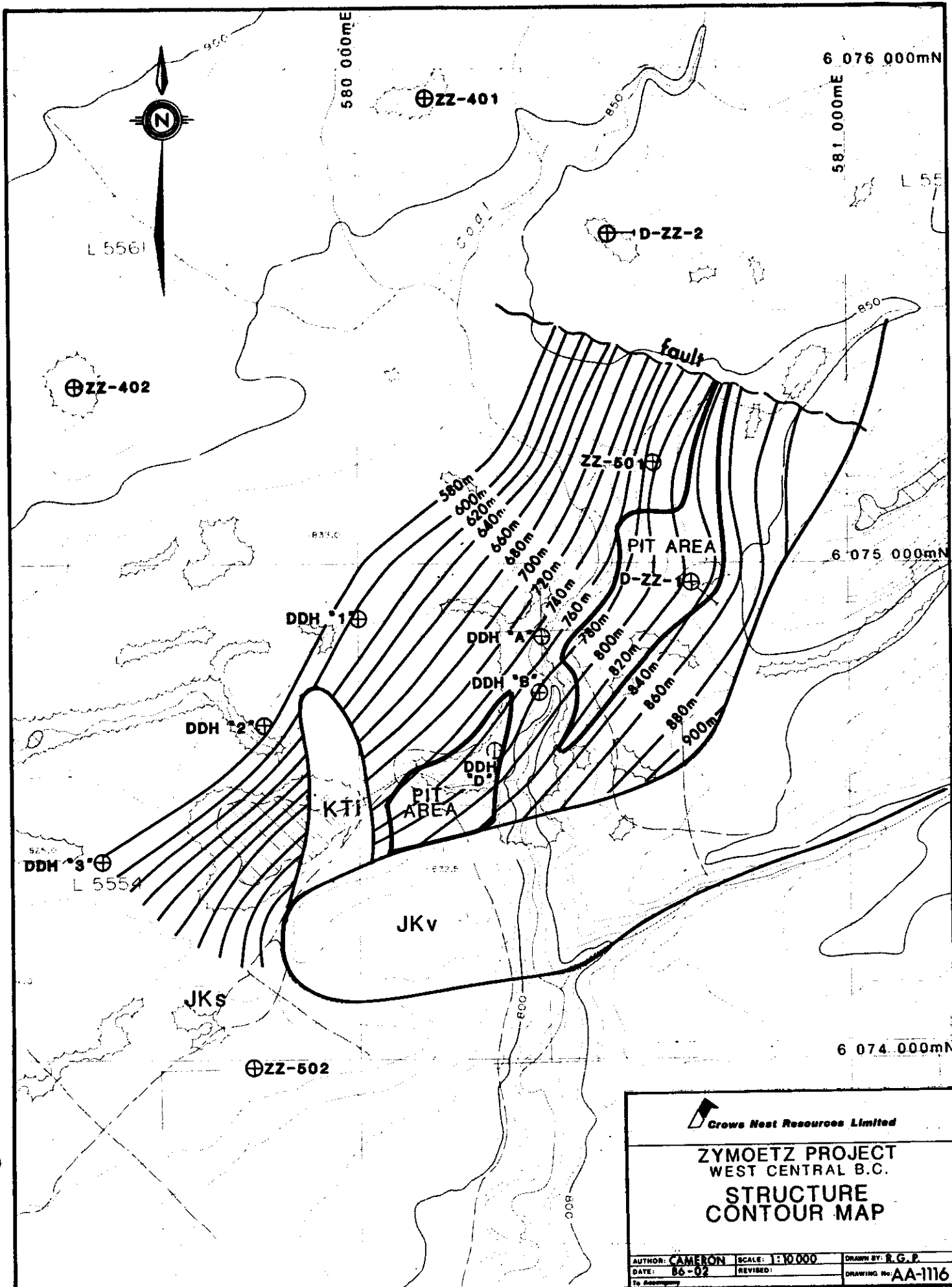
AUTHOR: CAMERON	SCALE: 1:10000	DRAWN BY: RGP
DATE: 85-04	REVISED: 86-04	DRAWING No: ZR3001
To Accompany		





Crows Nest Resources Limited

ZYMOETZ PROJECT
WEST CENTRAL B.C.
ENCL 5
ISOPACH MAP
(TOTAL COAL)

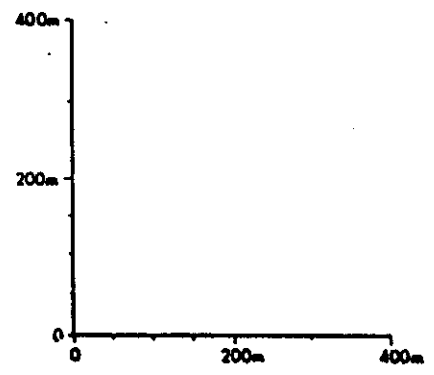
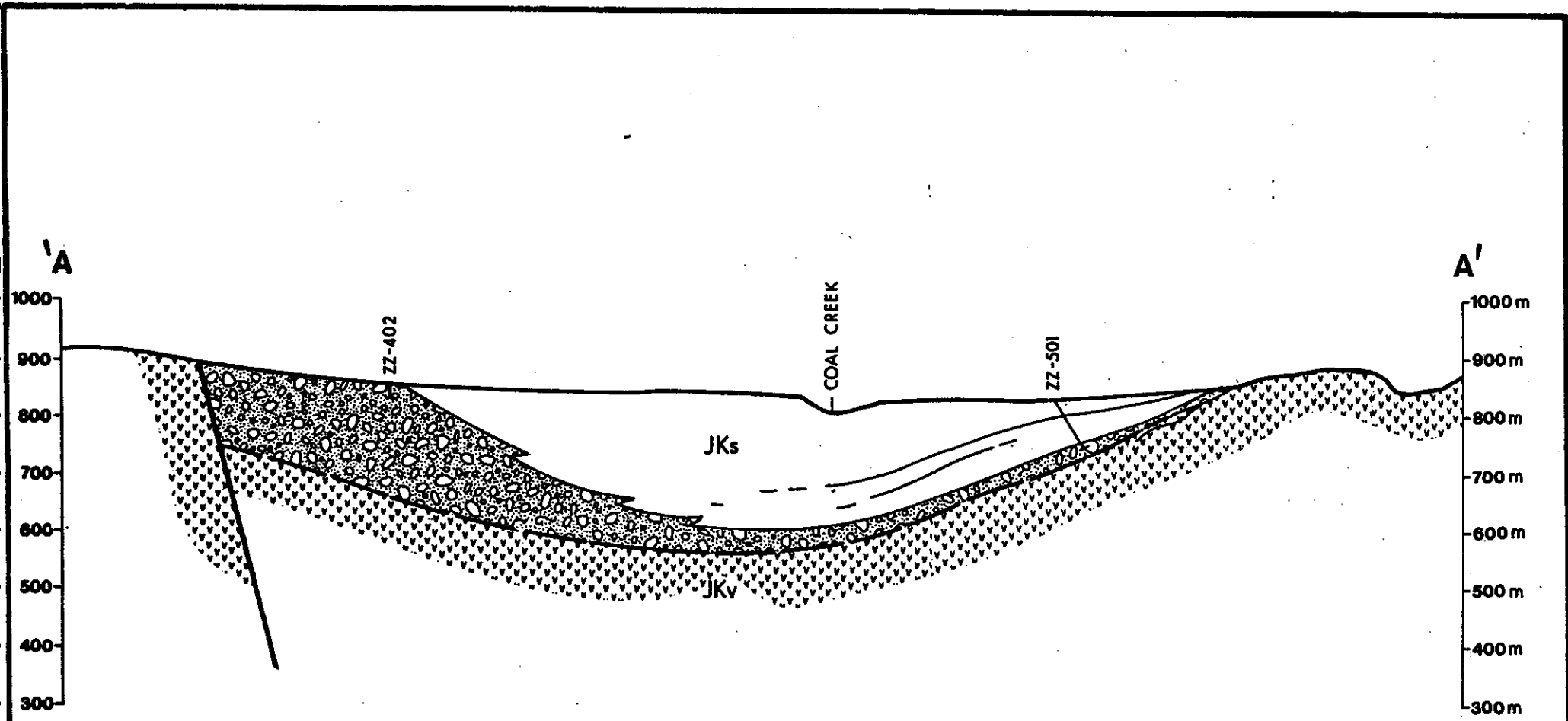
AUTHOR: CAMERON	SCALE: 1:10 000	DRAWN BY: R.G.P.
DATE: 80-02	REVISED:	DRAWING No: AA-1115
To Accompany		








Crow's Nest Resources Limited

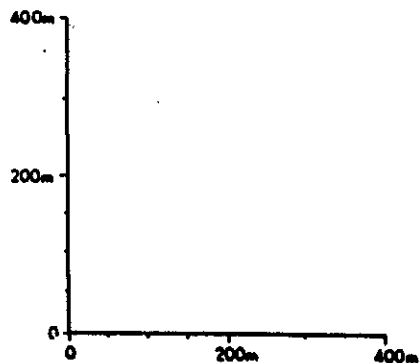
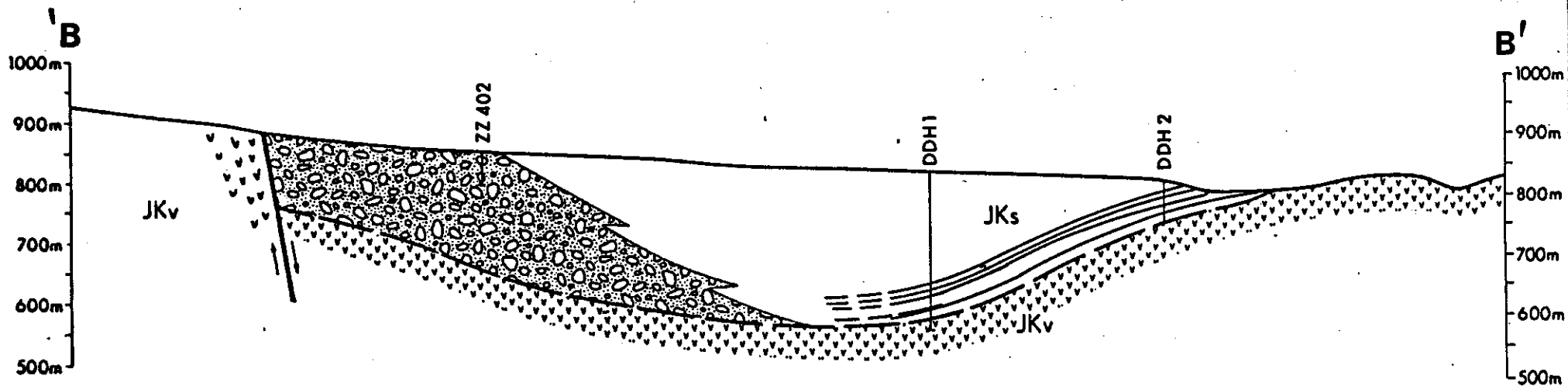
ZYMOETZ PROJECT
WEST CENTRAL B.C.
STRUCTURE
CONTOUR MAP

AUTHOR: CAMERON	SCALE: 1:10000	DRAWN BY: R.G.P.
DATE: 86-02	REVISED:	DRAWING NO: AA-1116
To accompany		




-  HAZELTON GROUP
-  SKEENA GROUP
-  BASAL CONGLOMERATE / AGGLOMERATE

 Crow's Nest Resources Limited EXPLORATION		
ZYMOETZ PROJECT <i>ENCL 7A</i> SECTION 'A-A'		
NTS-93L/13		UTM ZONE 9
AUTHOR: S. CAMERON	SCALE: 1:10 000	DRAWN BY: K.W. PASCOE
DATE: 1984-04-18	REVISION:	CHECKED BY:
To Accompany		



-  HAZELTON GROUP
-  SKEENA GROUP
-  BASAL CONGLOMERATE / AGGLOMERATE

 Crown Point Resources Limited EXPLORATION		
ZYMOETZ PROJECT ENCL 7 13 SECTION 'B - B'		
NTS-93L/13		UTM ZONE 9
AUTHOR: CAMERON	SCALE: 1:10000	DRAWN BY: RSP
DATE: 88-04	REVISED:	PROJECT No: AA-1108
<small>Do Not Reproduce</small>		



BOREHOLE 85-1 (1)

CLIENT Crows Nest Resources Ltd.

AREA Zymoetz B.C.

DEPTH SCALE
1:20

COUNTRY Canada

DATE LOGGED 07/Sep/85

4 of 4 LOGS

BOREHOLE DATA REFER TO Hydrology LOG

OPERATION DATA REFER TO Hydrology LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE #101

LOG	TAPING	LOG RECORD	RECORD SPEED	RECORD RELAT	PANEL	SECS	NORM	COAL
S/R	Y	2m/m	R	2	2	-	-	1.8
BR DENSITY	Y	2m/m	R	2	3	7.94	-	-

SEAM THICKNESS LOG INTERVALS

FROM 35.0m

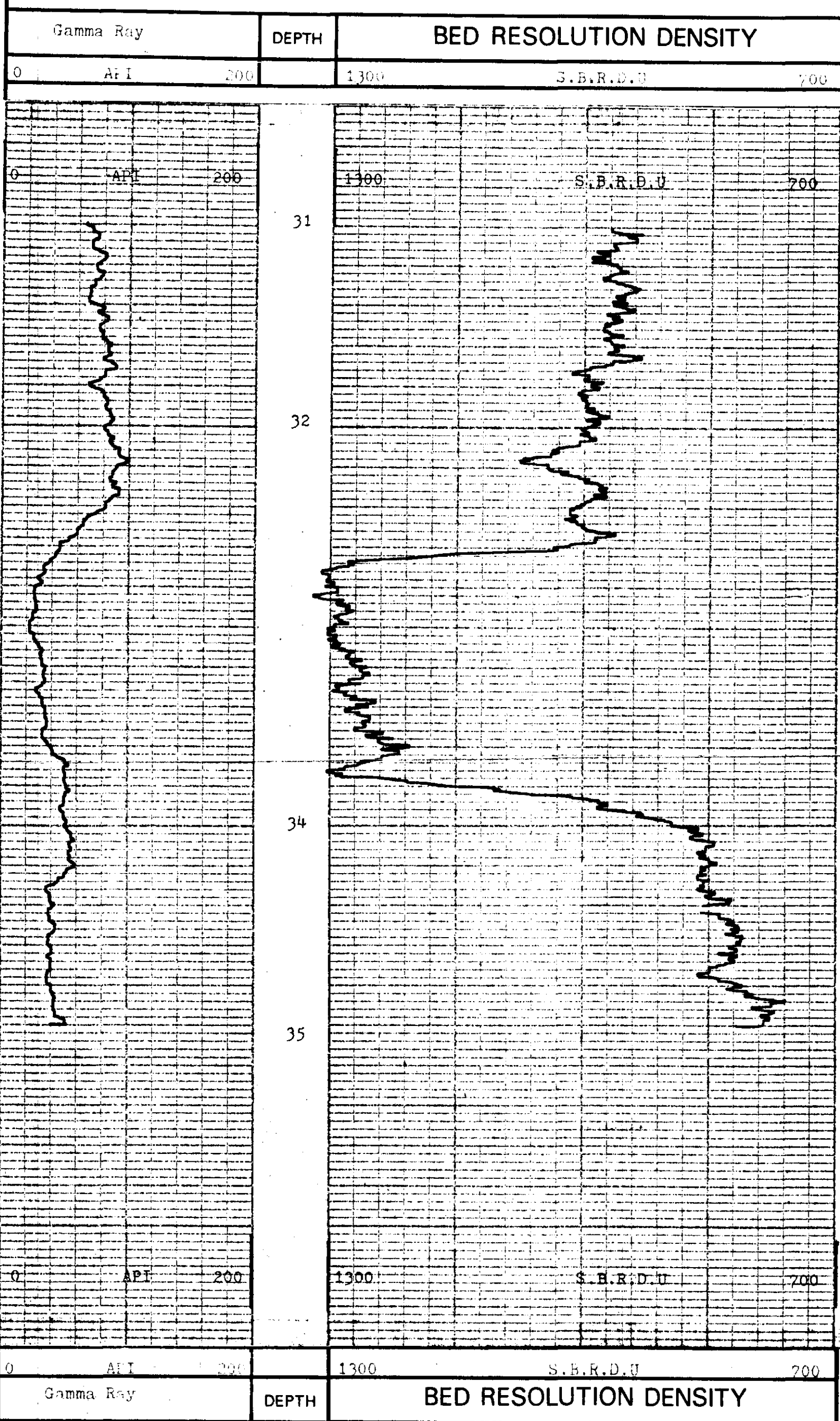
TO 31.0m

INTERVAL 4.0m

LOG SUITE:
CALIPER
BR. DENSITY

REMARKS
Logged through drill rods, caliper not displayed.

B P B SEAM THICKNESS LOG



Gamma Ray	DEPTH	BED RESOLUTION DENSITY
0	200	1300
0	200	700



BOREHOLE 85-1
CLIENT Crows Nest Resources Ltd.

AREA Zymoetz B.C.
COUNTRY Canada

SEAM THICKNESS LOG

ENCL 8 (1)

715



Gamma Ray & Long Staced Density
(Logged through Drill Rods)

BOREHOLE 85-1 (2)

CLIENT Crows Nest Resources Ltd.

AREA Zymoetz B.C.

COUNTRY Canada

DATE LOGGED 07/Sep/85

DEPTH SCALE
1:100

LOGS
10-11-0085

BOREHOLE DATA REFER TO THIS LOG LOG

OPERATION DATA REFER TO THIS LOG LOG

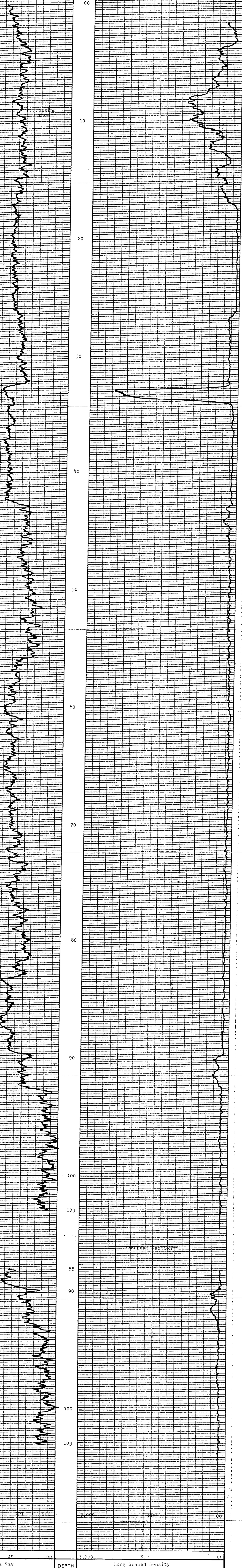
EQUIPMENT AND RECORDING DATA

LOGS

TABLE SPEED REVERSE SPEED NORM
G/R Y gm/m D 9 1 - 1.3
I.S.D Y gm/m D 9 1.3 2.1 -
R.H.D Y gm/m R 2 1.3 2.9 -

REMARKS NO OPEN LOGS
BILL NO TO 3.4M
DIR TD1105.74m
PRP TD1105.00m

Gamma Ray DEPTH Long Staced Density



Gamma Ray DEPTH Long Staced Density

BOREHOLE 85-1 AREA Zymoetz B.C.
CLIENT Crows Nest Resources Ltd. COUNTRY Canada



MY A58452R

715



Gamma Ray & Long Spaced Density
(Logged through Drill Rods.)
Detail Section

BOREHOLE 85-1 (3)
CLIENT Crows Nest Resources Ltd.

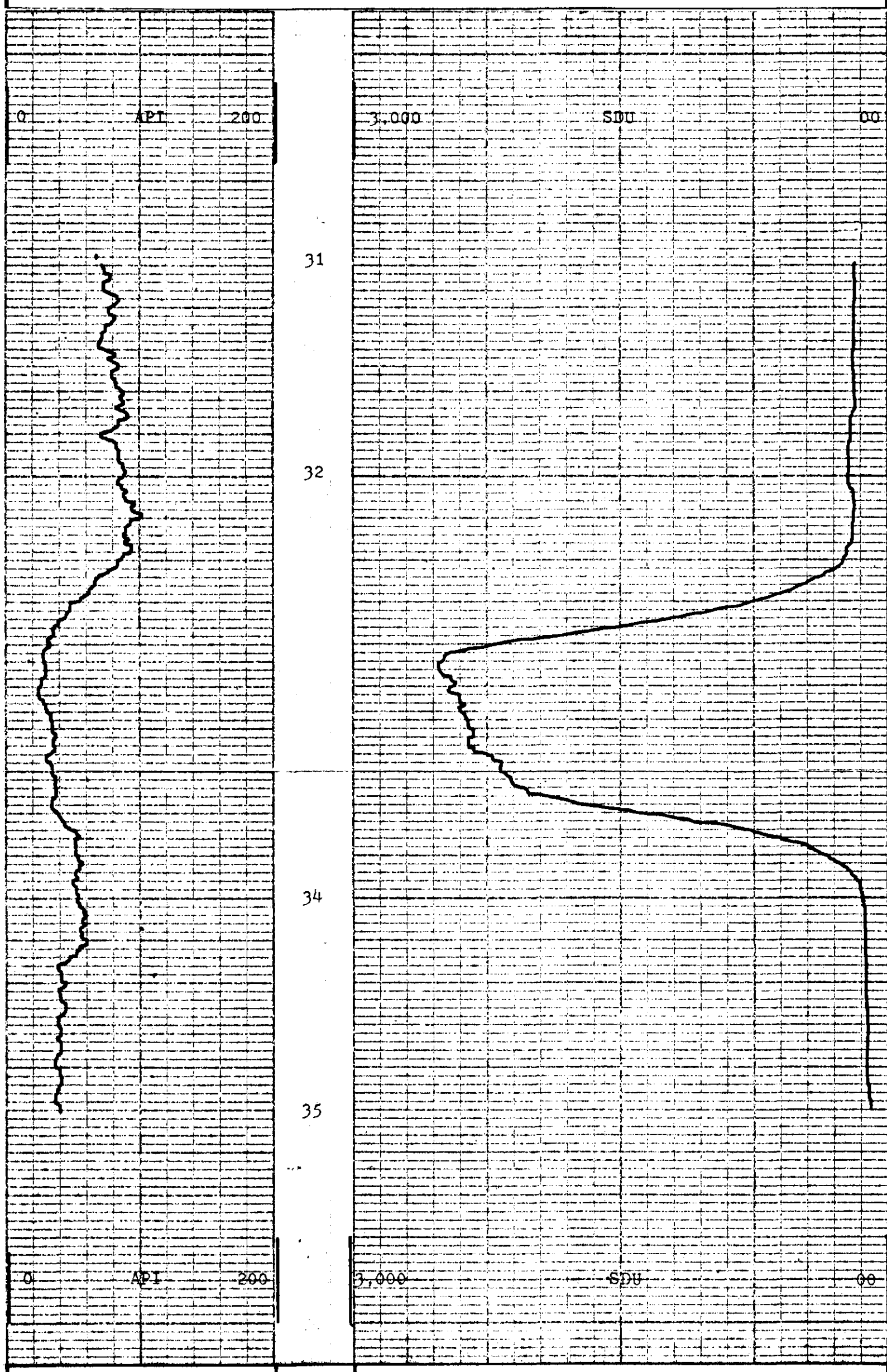
AREA Zymoetz B.C. DEPTH SCALE 1:20
COUNTRY Canada
DATE LOGGED 07/Sep/85 3 OF 4 LOGS

BOREHOLE DATA REFER TO GR/ISD LOG
OPERATION DATA REFER TO GR/ISD LOG
EQUIPMENT AND RECORDING DATA

LOG	TAPING LOG	RECORDING	DIRECT	REPLAY	SPEED	T.C.	PANEL	CAL
	TAPED	RECORD	DIRECT	REPLAY	SPEED	T.C.	PANEL	COEFF
G/R	Y	2m/m	R	2	2	-	-	1.84
ISD	Y	2m/m	R	2	1	7.11	-	-
		SQ/SEC						
		101						0.59

REMARKS
Detail Section 35-31m

Gamma Ray	DEPTH	Long Spaced Density
API	3,000	SDU

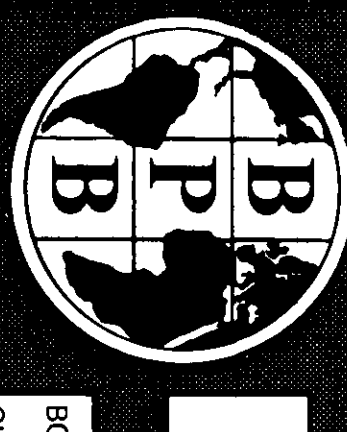


Gamma Ray	DEPTH	Long Spaced Density
API	3,000	SDU



BOREHOLE 85-1 AREA Zymoetz B.C.
CLIENT Crows Nest Resources Ltd. COUNTRY Canada

ENCL 8(3)
715



Gamma Ray & Neutron/Neutron
(Logged through Drill Rods)

BOREHOLE B5-1 4

CLIENT Crows Nest Resources Ltd.

AREA Zymoetz B.C.

COUNTRY Canada

DATE LOGGED 07/Sep/55

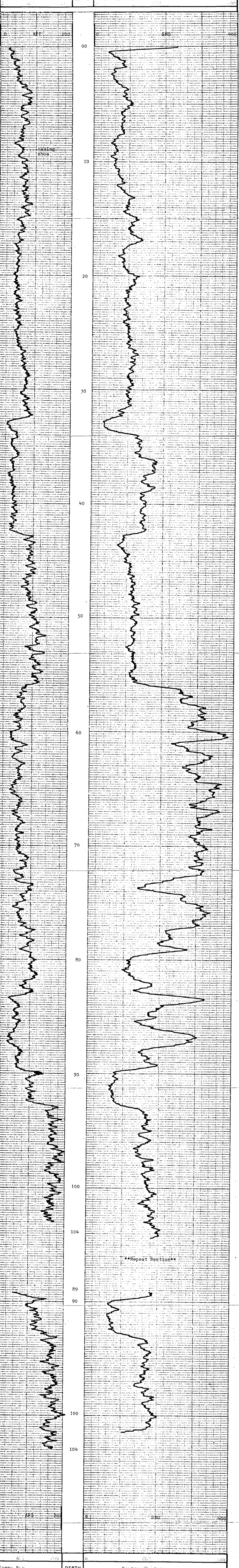
BOREHOLE DATA REFERTO GR/1331 LOG

OPERATION DATA REFERTO GR/1331 LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPPING	PANEL	SCALE
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Y	Y	R	9
N/A	Y	D	9
			1
			725

REMARKS No down hole logs available

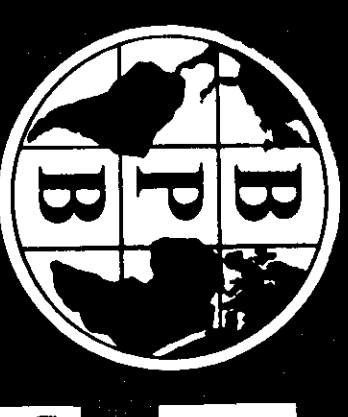


ENCL 8 (4)

715



BOREHOLE B5-1 AREA Zymoetz B.C.
CLIENT Crows Nest Resources Ltd. COUNTRY Canada



Gamma Ray & Long Spaced Density
(Logged through drill rods.)

BOREHOLE 85-502
CLIENT Crows Nest Resources Ltd.

AREA Zymetra, B.C.
COUNTRY Canada
DATE LOGGED 08/Sep/85

DEPTH SCALE
1:100

LOG 2 LOSS

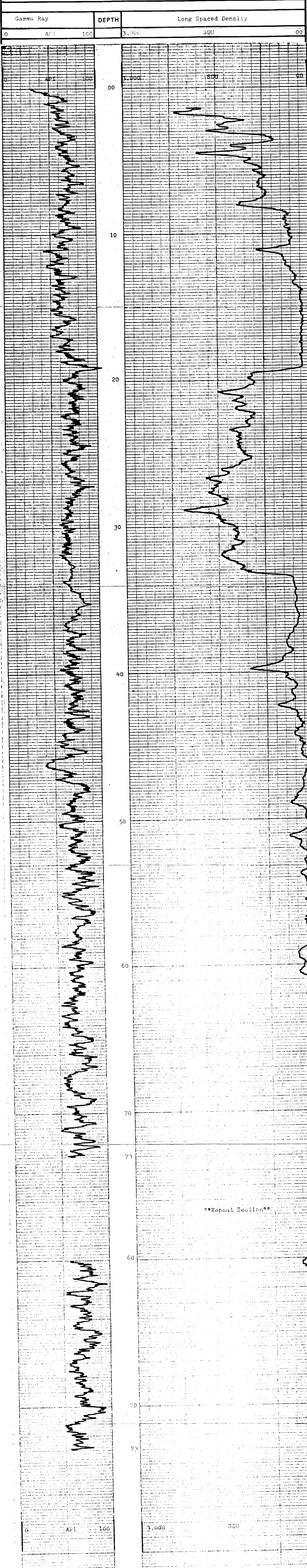
BOREHOLE DATA REFER TO This Log LOG

OPERATION DATA REFER TO This Log LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	DEPTH	SPEED	SCALE	UNIT
Y	9m/m	D	9	1	1.8
Y	9m/m	D	9	3	2.0
SERIAL 101 (85-059)					

REMARKS: No open hole logs available
D/L: 44.25.2 Bit-NW to 9.1m
D/B: 10474.0 NW to 25.2m
C&C: NW to 9.1m



DEPTH	Gamma Ray	SDU
0	AF1	3,000
100	100	4,000



BOREHOLE _____ AREA _____
CLIENT _____ COUNTRY _____

715



DATE LOGGED _____

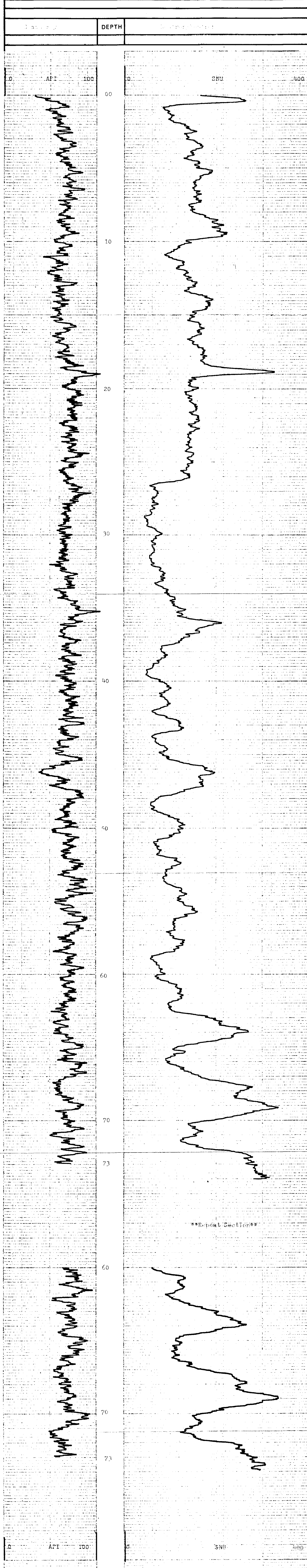
BOREHOLE _____ S02 (2)

AREA _____
COUNTRY _____
DEPTH SCALE _____

BOREHOLE DATA REFER TO _____ LOG
OPERATION DATA REFER TO _____ LOG

EQUIPMENT AND RECORDING DATA

LOGS TAPPING PANEL COEFF.
LOG RECORDING SPEED SCS NORM
REMARKS



715



BOREHOLE _____ AREA _____
CLIENT _____ COUNTRY _____

ZYMOETZ

 DRILL HOLE # ZZ85D-501

10/15/85

LOG DATE 85/09/10
 EXAMINED BY S. CAMERON

TOP	BASE	THICKNESS	MAJOR	SEAM	SAMPLE#	REC %	MINOR LITHOLOGY	REMARKS	C.B.A.	DEPTH
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
.00	3.40	3.40	OB					O.B.		
3.40	14.80	11.40	SLST					INTERBDD WITH THIN BANDS OF SS1. LIGHT GREY	60	6.00
14.80	26.40	11.60	SS1					INTERBDD WITH SLST AND SS2. SLST IS LIGHT GREY. SS IS SALT & PEPPER.	63	18.00
									66	22.00
26.40	32.45	6.05	MDST					DARK GREY, FAIRLY MASSIVE, CARB NEAR BASE.		
32.45	33.65	1.20	COAL		1	65.00		BROKEN STICK		
33.65	42.70	9.05	CONG					SS MATRIX, VOLC PEBBLES UP TO 5 CM. IN DIAMETER.		
42.70	55.80	13.10	MDST					BLACK CARB. OCC COALY SHALE BAND. IRST BANDS CONTAINING ABUNDANT CALCITE VIENS	71	45.00
									64	47.00
									62	52.50
55.80	70.40	14.60	SS2					SALT & PEPPER, CONTAINS THIN MDST STRINGERS AND RIP UP CLASTS, OCC THIN BANDS OF SLST	55	60.00
									33	64.33
									59	67.00

ZYMOETZ

 DRILL HOLE # ZZ85D-501

10/15/85

LOG DATE 85/09/10
 EXAMINED BY S. CAMERON

TOP	BASE	THICKNESS	MAJOR	SEAM	SAMPLE#	REC %	MINOR LITHOLOGY	REMARKS	C.B.A.	DEPTH
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
70.40	77.25	6.85	SS1				SLST	INTERBDD LIGHT GREY SS WITH DARK GREY SLST		
77.25	83.00	5.75	MDST				FAULT	DARK GREY, FAULT AT 81 METERS.		
83.00	89.20	6.20	SS2					SALT & PEPPER	64	85.00
									58	89.00
89.20	89.65	.45	BREC					OCC CHLORITE BAND		
89.65	92.60	2.95	VOLC					FINE GR. WEATHERED RED, VERY SOFT.		
92.60	105.76	13.16	VOLC					AGGL. GREEN COARSE GR MATRIX, VOLC PEBBLES. ALSO PEBBLES OF A FELSIC PORPHYRY, MASSIVE.		

ZYMOETZ

10/15/85

DRILL HOLE # ZZ85D-502

LOG DATE 85/09/10
EXAMINED BY S. CAMERON

TOP	BASE	THICKNESS	MAJOR	SEAM	SAMPLE#	REC %	MINDR LITHOLOGY	REMARKS	C.B.A.	DEPTH
.00	29.00	29.00	SS							
29.00	35.60	6.60	MDST				SLST	INTERBEDDED DARK GREY MDST WITH LIGHT GREY SLST.	66	33.00
35.60	37.20	1.60	SS4					COARSE GR WITH OCC SMALL VOLC PEBBLES.	64	36.00
37.20	38.90	1.70	SS1					LIGHT GREY WITH INTERBEDDED DARK GREY MDST.		
38.90	39.40	.50	MDST					BLACK CARB INTERBEDDED WITH LIGHT GREY MDST.	60	39.00
39.40	40.00	.60	COAL		1	65.00				
40.00	45.45	5.45	SLST					GREY, INTERBEDDED WITH DARK GREY MDST	60	40.00
									60	43.00
45.45	48.60	3.15	SS1					LIGHT GREY, OCC BAND OF CONG	56	46.00
48.60	49.10	.50	COAL			64.00	SHALEY			
49.10	51.10	2.00	SS1				SLST	INTERBEDDED, LIGHT GREY.		
51.10	51.38	.28	SH				CARB	BLACK		

ZYMOETZ

10/15/85

DRILL HOLE # ZZ85D-502

LOG DATE 85/09/10
EXAMINED BY S. CAMERON

TOP	BASE	THICKNESS	MAJOR	SEAM	SAMPLE#	REC %	MINOR LITHOLOGY	REMARKS	C.B.A.	DEPTH
51.38	59.05	7.63	SLST					THIN INTERBEDS OF CARB MDST AND LIGHT GREY SLST.	54	53.00
									51	58.00
59.05	59.60	.55	SH				CARB	BLACK		
59.60	60.10	.50	SLST					A/A		
60.10	60.60	.50	SH				CARB	BLACK		
60.60	64.85	4.25	SS1					LIGHT GREY, FINES UPWARD. THIN CONG BANDS NEAR BASE.	63	63.00
64.85	65.20	.35	MDST					DARK GREY		
65.20	66.10	.90	SLST					DARK GREY		
66.10	67.15	1.05	MDST					DARK GREY		
67.15	68.90	1.75	CONG					VOLC PEBBLES UP TO 4CM IN DIAMETER.		
68.90	69.47	.57	MDST					GREY/RED.		

ZYMOETZ

 DRILL HOLE # ZZ85D-502

10/15/85

LOG DATE 85/09/10
 EXAMINED BY S. CAMERON

TOP	BASE	THICKNESS	MAJOR	SEAM	SAMPLE#	REC %	MINOR LITHOLOGY	REMARKS	C.B.A. DEPTH
---	---	---	---	---	---	---	---	---	---
69.47	71.72	2.25	SS1					DARK GREY TO RED, OCC CARB STRINGERS NEAR BASE OF UNIT.	61 71.00
71.72	75.20	3.48	CONG					VOLC PEBBLES UP TO 8CM IN DIAMETER.	

Report on the Sealing of drillholes

Inspection District # 9 Date of Report Dec 11/85
Company Crows Nest Resources Land District Coast Range 5
Coal Map Number NTS Map Sheet 93L/13 Licence Number 4254

1. Number of Drillhole. ZZ 85D - 501
2. Surface elevation. 835 m
3. Type (Vertical, diamond, rotary, size etc.) 60° Diamond Drill Hole 1003
4. Drilled by: Name of Contractor J.T. Thomas Diamond Drilling Ltd
Name of Exploration Company Crows Nest Resources

5. Date of completion. Sept 7/85
6. Date of Sealing Sept 7/85

7. Sealed by: Name of Contractor J.T. Thomas Diamond Drilling Ltd
Name of Exploration Company Crows Nest Resources Limited

8. (a) Has any casing, drill pipe, drill bits, core barrel, etc. been left in the hole? No
(b) If so, give details and location. _____

9. (a) Was the drillhole sealed in the manner outlined in the Chief Inspectors Instructions? Yes
(b) If No, give reasons and details of variation. _____

10. (a) Was the sealing effective? Yes
(b) Details of any tests carried out. _____

11. I certify that the above drillhole has been effectively sealed in accordance with the instructions of the Chief Inspector of Mines.

Signature Steve Cameron
Designation Geologist
Date Dec 11/85
Countersignature Dr. Blair
Designation Manager
Date Dec 11/85

Report on the Sealing of drillholes

Inspection District # 9 Date of Report Dec 11/85
Company Crows Nest Resources Limited Land District Coast Range 5
Coal Map Number NTS Map Sheet 93L/13 Licence Number 4252

1. Number of Drillhole. ZZ 85D - 502
2. Surface elevation. 833m
3. Type (Vertical, diamond, rotary, size etc.) Vertical Diamond

4. Drilled by: Name of Contractor J.T. Thomas Diamond Drilling Ltd.
Name of Exploration Company Crows Nest Resources Limited

5. Date of completion. September 8/85
6. Date of Sealing September 8/85

7. Sealed by: Name of Contractor J.T. Thomas Diamond Drilling Ltd.
Name of Exploration Company Crows Nest Resources Limited

8. (a) Has any casing, drill pipe, drill bits, core barrel, etc. been left in the hole? No
(b) If so, give details and location. _____

9. (a) Was the drillhole sealed in the manner outlined in the Chief Inspectors Instructions? Yes
(b) If No, give reasons and details of variation. _____

10. (a) Was the sealing effective? Yes
(b) Details of any tests carried out. _____

11. I certify that the above drillhole has been effectively sealed in accordance with the instructions of the Chief Inspector of Mines.

Signature Steve Cameron
Designation Geologist
Date Dec 11/85
Countersignature Jim Baker
Designation Manager
Date Dec 18/85



Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

APPLICATION TO EXTEND TERM OF LICENCE

1. Glenn C. Brandfoot agent for Shell Canada Limited
(Name) (Name)
(same) P.O. Box 2499 Station "N"
(Address) (Address)
Calgary, Alberta T2P 3Y9
 Valid FMC No. _____

herby apply to the Minister to extend the term of Coal Licence(s) No(s). 4252, 4253 + 4254

for a further period of one year.

2. Property name Zymoetz River

3. I am allowing the following Coal Licence(s) No(s). to forfeit 4255

4. I have performed, or caused to be performed, during the period September 3, 1985 to September 13, 1985, work to the value of at least \$ 61,809.⁶⁵

on the location of coal licence(s) as follows:

CATEGORY OF WORK

CATEGORY OF WORK	Licence(s) No(s).	Apportioned Cost
Geological mapping	_____	_____
Surveys: Geophysical	_____	_____
Geochemical	_____	_____
Other	_____	_____
Road construction	_____	_____
Surface work	<u>4252 + 4254</u>	<u>1800.⁰⁰</u>
Underground work	_____	_____
Drilling	<u>4252 + 4254</u>	<u>46,172.³⁰</u>
Logging, sampling and testing	<u>4252 + 4254</u>	<u>10,598.¹⁵</u>
Reclamation	_____	_____
Other work (specify)	_____	<u>3,239.⁰⁰</u>
Off-property costs	_____	<u>\$61,809.⁶⁵</u>

5. The work performed on the location(s) is detailed in the attached report entitled Zymoetz 1985
Geological Report

April 9, 1986
(Date)

John H.
(Signature)

Supervisor hand - CNRL
(Position)

(FORMS AND REPORT TO BE SUBMITTED IN DUPLICATE)

GEOLOGICAL MAPPING

	Area (hectares)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Scale	Duration
Reconnaissance	_____				
Detail: Surface	_____				
Underground	_____				
Other* (specify)	_____				
					Total Cost \$ _____

GEOPHYSICAL/GEOCHEMICAL SURVEYS

		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Method	_____			
Grid	_____			
Topographic	_____			
Other* (specify)	_____			
				Total Cost \$ _____

ROAD CONSTRUCTION

		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Length	_____			
Width	_____			
On Licence(s) No.(s)	_____			
Access to	_____			
				Total Cost \$ _____

SURFACE WORK

		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
	Length	Width	Depth	Cost	
Trenching	_____	_____	_____	_____	
Beam Tracing	_____	_____	_____	_____	
Crosscutting	_____	_____	_____	_____	
Other* (specify)	Site Preparation			1800. ⁰⁰	
				Total Cost \$	1800. ⁰⁰

UNDERGROUND WORK

		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
	No. of Adits	Maximum Length	No. of Holes	Total Metres	Cost
Test Adits	_____	_____	_____	_____	_____
Other workings*	_____	_____	_____	_____	_____
					Total Cost \$ _____

DRILLING

		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
	Hole Size	No. of Holes	Total Metres	Cost	
Core: Diamond	NA	2	180	26,660. ⁵⁰	
Wireline	_____	_____	_____	_____	
Rotary: Conventional	_____	_____	_____	_____	
Reverse circulation	_____	_____	_____	_____	
Other* (specify)	Helicopter			19,512. ⁰⁰	
Contractor	_____				
Where is the core stored?	_____				
					Total Cost \$ 46,172. ⁵⁰

LOGGING, SAMPLING AND TESTING

		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Lithology: Drill samples	<input type="checkbox"/>	Core samples	<input checked="" type="checkbox"/>	Bulk samples	<input type="checkbox"/>
Logs: Gamma-neutron	<input checked="" type="checkbox"/>	Density	<input checked="" type="checkbox"/>		
Other* (specify)	_____				
Testing: Proximate analysis	<input checked="" type="checkbox"/>	FSI	<input checked="" type="checkbox"/>	Washability	<input type="checkbox"/>
Carbonization	<input type="checkbox"/>	Petrographic	<input type="checkbox"/>	Plasticity	<input type="checkbox"/>
Other* (specify)	_____				
					Total Cost \$ 10,598. ¹⁵

RECLAMATION

		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Details	_____			
				Total Cost \$ _____

OTHER WORK (Specify details)

		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
Details	_____				
					Total Cost \$ _____

OFF-PROPERTY COSTS

		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Details	Report Preparation			
				Total Cost \$ 3239. ⁰⁰

Total Expenditures \$ 61,809.⁶⁵

April 9, 1986
(Date)

[Signature]
(Signature)

Manager Geology - CNRL
(Position)

*A full explanation of other work is to be included.

[REDACTED]
COAL QUALITY DATA

ENCLOSURE 10

71

part 2

LORING LABORATORIES LTD.

CERTIFICATE OF COAL TESTING

COMPANY CROWSNEST RESOURCES LTD.
 ATTENTION B. Ryan
 PROJECT Zymoetz

FILE NO. 28042
 DATE October 24, 1985
 PAGE 1 of 1

SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY		BASIS OF ANALYSIS	REC'D % H ₂ O	% H ₂ O	% V.M.	% ASH	% F.C.	% S	Kcal/Kg	F.S.I	NOTES	
		SINK	FLOAT											
ZZ-501-1 32.45-33.65	Raw Coal			As Received	7.21	-		12.46						
				Air Dried	-	1.45		13.23					3	
				Dry Basis	-	-		13.42						
1.60 Ft	-	89.95		Air Dried	-	.93	35.18	8.68	55.21	.60	7,263	3		
				Dry Basis	-	-	35.51	8.76	55.73	.61	7,331			
ZZ-502-1 48.6-49.1	Raw Coal			As Received	10.87	-		50.91						
				Air Dried	-	.93		56.59					0	
				Dry Basis	-	-		57.12						
1.60 Ft	-	24.42		Air Dried	-	.87	32.24	25.31	41.58	.73	5,767	1		
				Dry Basis	-	-	32.52	25.53	41.95	.74	5,818			

CONFIDENTIAL

CONFIDENTIAL

PURCHASE ORDER NUMBER: CN 24019

ANALYST: D. [Signature]

[REDACTED]
COAL QUALITY DATA

ENCLOSURE 10

71

part 2

LORING LABORATORIES LTD. CERTIFICATE OF COAL TESTING				COMPANY		CROWSNEST RESOURCES LTD.					FILE NO.	28042		
				ATTENTION		B. Ryan					DATE		October 24, 1985	
				PROJECT		Zymoetz					PAGE 1 of 1			
SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY		BASIS OF ANALYSIS	REC'D % H ₂ O	% H ₂ O	% V.M.	% ASH	% F.C.	% S	Kcal/Kg	F.S.I	NOTES	
		SINK	FLOAT											
ZZ-501-1 32.45-33.65	Raw Coal			As Received	7.21	-		12.46						
				Air Dried	-	1.45		13.23					3	
				Dry Basis	-	-		13.42						
1.60 Ft	-	89.95		Air Dried	-	.93	35.18	8.68	55.21	.60	7,263	3		
				Dry Basis	-	-	35.51	8.76	55.73	.61	7,331			
ZZ-502-1 48.6-49.1	Raw Coal			As Received	10.87	-		50.91						
				Air Dried	-	.93		56.59					0	
				Dry Basis	-	-		57.12						
1.60 Ft	-	24.42		Air Dried	-	.87	32.24	25.31	41.58	.73	5,767	1		
				Dry Basis	-	-	32.52	25.53	41.95	.74	5,818			

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 LORING LABORATORIES LTD.

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 LORING LABORATORIES LTD.

PURCHASE ORDER NUMBER: CN 24019

ANALYST: D. [Signature]