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TULAMEEN COAL PROJECT

FILE COPY

INTRODUCTORY NOTES

N.T.S. 92-H-7, 10

Lat.: 49°30'N

Long.: 120°45'W

CYPRUS ANVIL MINING CORPORATION

February 1979

TULAMEEN COAL PROJECT

INTRODUCTORY NOTES

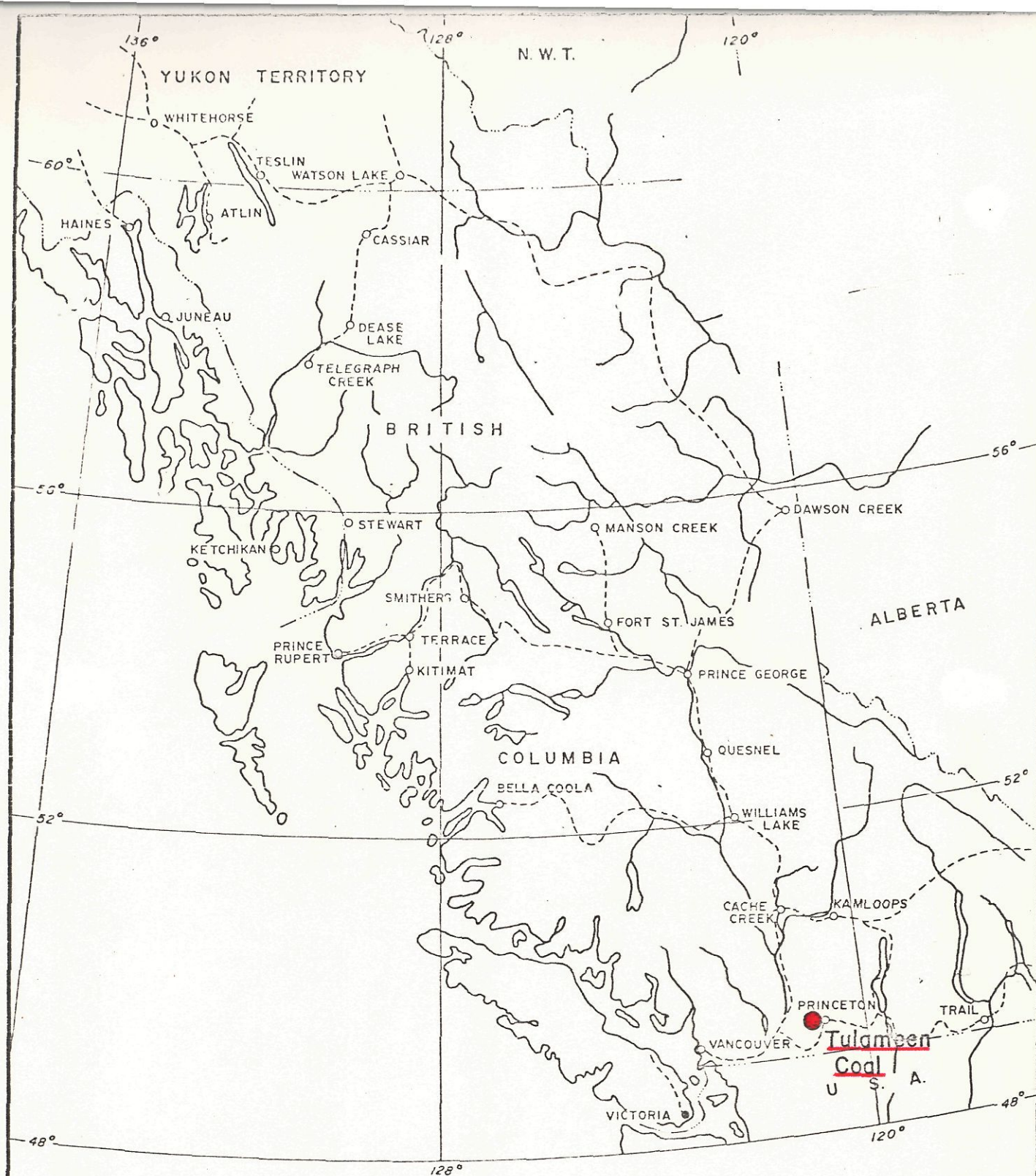
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## TULAMEEM COAL PROJECT

### PROPERTY LOCATION MAP

BRITISH COLUMBIA

SCALE: 1" = 125 MILES



### LEGEND

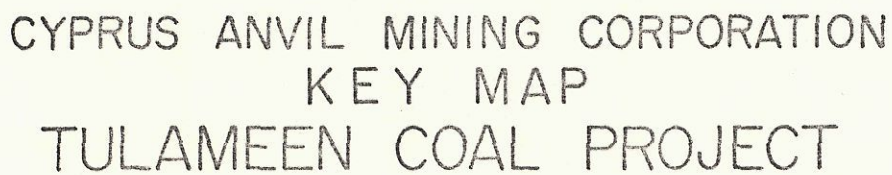
Tertiary

4 UPPER VOLCANICS; brown to black basalt  
UNCONFORMITY

3 COAL BEARING SEDIMENTS; mudstone, shale, sandstone, conglomerate

2 LOWER VOLCANICS; andesite to felsite  
UNCONFORMITY

Upper Triassic  
NICOLA GROUP; metamorphosed volcanic and sediments



SCALE 1:50,000 ÉCHELLE

NTS 92 H-7, 10



FIG. 1



CYPRUS ANVIL MINING CORPORATION

TULAMEEN THERMAL COAL PROJECT

LOCATION: Southwestern British Columbia, about 170 km east-northeast of Vancouver and 15 km northwest of Princeton; good road and rail access; rail distance to Vancouver 420 km.

<u>RESERVES:</u>	<u>Open Pit</u>	<u>Underground</u>
Proven:	10,000,000 m.t.	-
Indicated:	3,000,000 m.t.	-
Inferred:	-	100,000,000 m.t.

PRODUCTION: 420,000 m.t. clean coal per year (54% recovery from 800,000 m.t. per year raw coal mined).

START-UP: 1981.

MINE TYPE: Simple elongate open pit scraper-dozer operation, from a single seam of average 15 m (50 feet) thickness.

PLANT: Washing utilizing BATAC jig for 4" x 28 mesh fraction with compound water cyclones for 28 x 100 mesh fraction.

PROXIMATE ANALYSIS: (Clean Coal, as received)

Total Moisture	12.0%
Ash	14.5%
Volatile Matter	30.2%
Fixed Carbon	43.3%
Sulphur	0.60%
Calorific Value	5,500 cal/gm @ 12% T.M. 5,938 cal/gm @ 5% I.M.

ULTIMATE ANALYSIS: (as received)

Ash	13.80%
Carbon	62.73%
Hydrogen	4.90%
Nitrogen	1.36%
Sulphur	0.63%
Oxygen	16.57%

ASH FUSION TEMPERATURES:

	<u>Oxidizing Atmosphere</u>	<u>Reducing Atmosphere</u>
Initial Deformation	1316°C	1238°C
Softening (Spherical)	1416°C	1360°C
Fluid	1538°C	1516°C

MINERAL ASH ANALYSIS:

SiO <sub>2</sub>	69.51
Al <sub>2</sub> O <sub>3</sub>	13.54
Fe <sub>2</sub> O <sub>3</sub>	6.55
CaO	1.17
MgO	0.44
Na <sub>2</sub> O	0.67
K <sub>2</sub> O	0.64
TiO <sub>2</sub>	0.04
P <sub>2</sub> O <sub>5</sub>	0.17
SO <sub>3</sub>	0.51

HARDGROVE GRINDABILITY INDEX: 55-60BULK DENSITY: 50 lbs./cu.ft.ASTM CLASSIFICATION BY RANK: High Volatile Bituminous C.PILOT SCALE COMBUSTION EVALUATION:

- Handling and Comminution: The "as received" coal was crushed, metred, and pulverized without difficulty. At 12% T.M., flow characteristics were excellent.

- Flame Characteristics: The flame was bright, clean, easily ignited, and extremely stable under all experimental conditions.

- Fly-ash Precipitation: A high fly-ash resistivity ( $10^{11}$  ohm cm) will result in a relatively difficult ash to precipitate.

- Slagging and fouling characteristics were excellent and no significant low temperature corrosion occurred.



