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July 26, 1996

Mineral Titles Ministry of Employment and Investment 4th Floor, 1810 Blanshard Street Victoria, B.C. V8V 1X4

## ATTENTION: Mrs. Kim Stones, Coal Administrator

Dear Mrs. Stone:

Please find enclosed one copy of the report entitled "Summary Report - 1995 Exploration Program."

I trust this submission will fulfill the requirements under the Coal Act and Coal Act Regulations.

Yours truly,

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K.A. Komenac, P. Eng. Sr. Geologist Fording River Operations

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Enclosure

## FORDING RIVER OPERATIONS

SUMMARY REPORT

**1995 EXPLORATION PROGRAM** 

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## Statement of Author's Academic and Professional Qualifications

The author of this report, K.A. Komenac, in 1973 received the degree of Bachelor of Science (Geology Major) from the University of British Columbia, and is registered as a Professional Engineer with the Association of Professional Engineers and Geoscientists of the Province of British Columbia. The author has been an employee of Fording Coal Limited at the Fording River Operations since November of 1973, as Assistant Pit Geologist, Exploration Geologist, Senior Exploration Geologist and, since 1989, Senior Geologist.

Ha found K.A. KONENAD

# SCHEDULE C

PROVINCE OF BRITISH COLUMBIA	MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURC	TITLE PAGE OF ASSESSMENT REPORT ES
GENERAL NATURE OF WO	RK	TOTAL COST
Exploration		\$657,900
Author of Landsman	Signa	iture (s)
K.A. Komenac (P. Eng.)		9 11
Date report filed _14-02	<u>-96</u> Year of w	vork <u>1995</u>
Property Name <u>Fording</u>	River Operations	
Cool ture (if applicable)	Madium to Llink Malatila	
Coal type (if applicable)	<u>viedium to High Volatile</u>	Bituminous
Mining Division _ Fort Steel	e NTS .	82J2W
Latitude <u>50º 10'</u>	Longitude	<u>114º 52'</u>
Coal Licence Numbers; Coa	I Leases; Freehold <u>BC (</u>	Coal Leases 1,2,5&9; Coal Licence 343
Owner(s)		
(1) FORDING COAL LIMITE	Ð	
Box 100, Elkford, B.C.	VOB 1H0	
Operator(s)		
(a) <u>Same</u>		
References to Previous Wo	rk	
Annual Assessment Report	s since 1970	

#### FORDING RIVER OPERATIONS

## SUMMARY REPORT

#### **1995 EXPLORATION PROGRAM**

#### I. INTRODUCTION

#### 1. General Geography and History

The Fording River Coal property is located in the Fording River and Upper Elk Valleys, approximately twenty-five (25) kilometres north of Elkford, B.C. Access is by paved road north from Elkford along the Fording River Valley, or north along the Elk River Valley via the Forestry Service gravel road or the Kan-Elk Powerline road.

The Fording River minesite is situated within the front range of the southern Canadian Rocky Mountains. At least ten (10) major coal seams, generally greater than four (4) metres thick, are contained in the Mist Mountain Formation of the Kootenay Group.

The Elk River portion of the property was actively explored by the Canadian Pacific Railway Company in the period 1902 - 1908. Until 1947, the property was comprised of 10,276 hectares in forty (40) Crown Granted Lots. In that year, the holdings were reduced to 2,979 hectares in fifteen (15) Crown Granted Lots. In 1967 and 1968, Canadian Pacific Oil and Gas re-acquired part of the coal lands which had been abandoned in 1947. At the present time, the Fording River Property consists of 19,780 hectares, held on four (4) Coal Leases, sixty-two (62) Coal Licences and fifteen (15) Crown Granted Lots.

Mining operations which commenced in 1971, have produced more than 95.9 million tonnes of clean metallurgical and thermal coal for markets in North and South America, Africa, Europe and Asia. Of this total, 7.2 million tonnes were produced in 1995.

Reference:

1

i) Illustration No. 1a: Index Map - Coal Properties

# 2. <u>Geology</u>

# i) <u>Stratigraphy</u>

The general stratigraphic succession on the Fording River Property is summarized in the following table:

PERIOD	LITHO-STRATIGRAPHIC UNITS		IGRAPHIC UNITS	PRINCIPAL ROCK TYPES	
Recent				Colluvium	
Quatemary				Clay, silt, sand, gravel, cobbles	
Lower Cretaceous		Blairm	ore Group	Massive bedded sandstones and conglomerates	
Lower Cretaceous to Upper Jurassic	K OO TENAY GRODI	Elk Formation		Sandstone, siltstone, shale, mudstone, chert pebble conglomerate, minor coal	
	r	Mist Mountain Formation		Sandstone, siltstone, shale, mudstone, thick coal seams	
		M F Moose Mountain Member O O R R R M I A S T S I E O Y N Weary Ridge Member		Medium to coarse grained quartz-chart sandstone	
				Fine to coarse grained, slightly ferruginous quartz-chart sandstone	
Jurassic	Fernie Formation		Formation	Shale, siltstone, fine-grained sandstone	
Triassic	Spray River Formation		er Formation	Sandy shale, shaley quartzite	
		Rocky Mou	ntain Formation		
Mississippian	Rundle Group		le Group	Limestone	

The oldest rocks present on the Fording River property are the Rundle Group limestones, located on the west bank of the Fording River, near the southern property boundary. They are in faulted contact with the Kootenay Group to the west, and unconformable contact with Rocky Mountain Formation quartzites to the north. The latter are best exposed on the eastern slope of the Brownie Creek Valley.

The Fernie Formation shales occur throughout the area, generally along the sides of valleys on the lower flanks of the mountains. The shales are recessive and, therefore, poorly exposed. The Fernie Formation is in conformable contact with the Morrissey, through the "Passage Beds," which are a transitional zone from marine to non-marine sedimentation.

The Morrissey Formation, which is the "basal sandstone" of the Kootenay Group, is a prominent cliff-forming marker horizon in many locations. On the Fording River Property, the top of the Moose Mountain member (Morrissey Formation) is in sharp contact with #1 or A seam, the lowermost bed of the Mist Mountain Formation.

The Mist Mountain Formation contains all of the economic coal seams, and is the most widely occurring formation on Fording River Property. This economically important formation is an interbedded sequence of sandstones, siltstones, silty shales, mudstones, and medium to high volatile bituminous coal seams. The volatile content of the coal increases up section, with decreasing rank. Lenticular sandstones comprise about 1/3 of the Mist Mountain sediments at Fording River, but very few laterally extensive sandstone beds exist.

The sandstone above and below seam #4 (B) and above #9 (F), are the most persistent units, and are often cliff-forming marker horizons.

The Mist Mountain Formation is generally overlain conformably by strata of the Elk Formation. On the Fording property, this formation is commonly a succession of sandstones, siltstones, shales, mudstones, chert pebble conglomerates and sporadic, thin, high volatile bituminous coal seams. The coal seams are characterized by a high alginate content and referred to as "Needle" coal. The Elk Formation is observed near the tops of the mountains, mainly on the east side of the Elk Valley on the Greenhills Range, and northward to the Mount Tuxford area.

The top of the Elk Formation marks the upper boundary of the Kootenay Group, which is unconformably overlain by the basal member of the Blairmore Group. This thick bedded, cliff forming sandstone and conglomerate unit is observed on the upper slopes of Mount Tuxford.

## ii) <u>Structure</u>

Subsequent to deposition, the sediments were involved in the mountain building movements of the late Cretaceous to early Tertiary Laramide orogeny. The major structural features of the Fording River property are the north-south trending synclines with near horizontal to steep westerly dipping thrust faults, and a few high angle normal faults. Some of the thrust faults probably were folded late in the tectonic cycle.

The formation of the major fold structures began early in the tectonic cycle. In the current mining area, two (2) asymmetric synclines are evident; the Greenhills Syncline to the west, and the Alexander Creek Syncline to the east of the Fording River. The thrust faulting (i.e. the Ewin Pass and Brownie Ridge Thrusts), was probably contemporaneous with the later stages of folding. The intervening anticline was subsequently faulted (Ericson Fault), then eroded.

The Alexander Creek Syncline can be traced from the southern property boundary on Castle Mountain to the northern end of the property on Weary Ridge. The strata of the west limb, on the west face of Eagle Mountain, dips easterly at 20 to 25°, decreasing gradually to zero (0) as the axis is approached. The east limb, however, attains a 20° westerly dip within a much shorted (500m) distance of the axis. This asymmetry is possibly due, at least in part, to the influence of the Ewin Pass Thrust which subcrops 600 to 800 metres east of the synclinal axis.

Further to the east, on Brownie Ridge, the strata dips westerly at a mean dip of 42°. The Brownie Ridge Thrust, which subcrops near the crest of the ridge, probably contributes to this steepening.

Within the mining area, the axis of the Alexander Creek Syncline plunges to the north at an average of 4°. Turnbull Mountain exhibits a localized series of en echelon fold structures, plunging both to the north and south. These subsidiary folds may be related to thrust faulting. From the south end of Mount Tuxford, the synclinal axis continues north-northwest along the base of Mount Veits and into the Elk River Valley near Aldridge Creek.

On Mount Tuxford, the beds exposed are those of the Elk Formation and the overlying (non-coal bearing) Cadomin Formation. The area has not been extensively explored. The stratigraphic sequence of the east limb, in the more extensively explored Mist Mountain strata near Aldridge Creek (Elco property), closely resembles the east limb strata found on Henretta Ridge, ten (10) kilometres to the south.

On the northwest corner of Eagle Mountain, the lower Kootenay-upper Fernie section is the locus for a zone of near horizontal thrust faulting. The effect is to cause a double repetition of the lower coal seams and basal sandstone on the west synclinal limb. This fault zone is synclinal in form, and continuous with the Ewin Pass Thrust zone found on the east limb.

The Greenhills Syncline in the mining area, is essentially a "mirror-image" of the Alexander Creek structure. The east limb of the asymmetric syncline dips westerly at 15 to  $25^{\circ}$ , except in areas near the Ericson Fault, where 45 to  $55^{\circ}$  dips are common. The west limb exhibits much steeper dips; commonly in the 35 to  $45^{\circ}$  range. The Greenhills Syncline plunges northward (340 to  $350^{\circ}$ ), at less than  $5^{\circ}$ , then apparently dies out to the north in the area of the Osborne Creek Depression.

The Ericson Fault, which locally runs along the base of the Greenhills Range west of the Fording River, is one of the major regional faults. From south to north, this westerly dipping (40 to 70°) normal fault, brings Mist Mountain strata progressively into contact with Rundle, Rock Mountain, Spray River, Fernie and Morrissey strata. The downthrown block is to the west.

Near the south end of Lake Mountain, the Ericson Fault begins to "splay" into two (2) zones. The main fault runs along the eastern margin of Lake Mountain, and the subsidiary fault runs to the west, and appears to "die out" northward. The steep northward dip exhibited in the Lake Mountain strata could be due to influence from these flanking "splays" of the fault. The flat lying region to the north of Lake Mountain (Osborne Creek Depression area) is completely void of outcrop, and the Ericson Fault has not been traced either through or to the north of this area. Reference:

i) Illustration No. 1b: General Geology Map

#### 3. <u>Summary of Work Done in 1995</u>

Fifty-six (56) reverse circulation drill holes were completed for a total of 10,548 metres. Geological field mapping was conducted by staff geologists on Henretta Ridge.

Rotary drilling was done by SDS Drilling using a Jaswell 2400, an Ingersol Rand TH60, and an Ingersol Rand TH100.

All holes were geophysically logged through the rods using the gamma-neutron method. Holes that remained open after the rods were pulled were logged for hole deviation, and selected holes were logged for gamma-density. Logging was done by Fording Coal Limited staff and Roke Oil Enterprises Ltd.

Coal seams encountered by rotary drilling were sampled in 0.5m intervals. Representative composite samples for each coal seam encountered in the hole were prepared at Fording's Process Plant Laboratory. Each seam composite was tested for proximate analysis, % Sulphur and Free Swelling Index. Samples from selected seam composites were sent to David E. Pearson and Associates for petrographic analysis.

Fording Coal Limited Environmental Services staff laid out the access road and drillsite locations. Pre-logging and slashing was done by Raymond Myles Contracting Limited.

Road and drillsite construction was done by Elkford Industries Ltd. and Fording Coal Limited. Staff surveyors provided the required survey control and drillhole pickups.

The following table shows the drillhole locations with respect to Coal Lease and Licence boundaries:

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Lease/Licence	Drillholes
B.C. Coal Lease #1	RH# 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511
B.C. Coal Lease #2	RH# 2430, 2433, 2434, 2501
B.C. Coal Lease #5	RH# 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471
B.C. Coal Lease #9	RH# 2446, 2447, 2448, 2449, 2450, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2495, 2496, 2497, 2498, 2499, 2500
Coal Licence #343	RH# 293, 295, 296

## Reference:

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i) Illustration No. 2: 1995 Exploration Program

## II INDIVIDUAL AREA PROGRAMS

## 1. <u>Henretta Ridge Area Program</u>

## i) <u>Objectives</u>

Results from the 1994 and previous drilling programs indicate a good potential for significant volumes of high and medium volatile coal, at acceptable stripping ratios, may exist on Henretta Ridge Seam 130, a thick high volatile seam thought to be the stratigraphic equivalent of "I" seam, was shown to thin quite dramatically to the west (down dip). This thinning appears to be due to the "shaleing out" of the lower portion of the seam.

The objective of the 1995 drilling and field mapping program was to:

- better define the location of the "transition zone" where the bottom portion of 130 seam shales out;
- extend the drillhole and surface information northward to the Fording River; and
- provide the additional fill-in information, over the entire ridge area, at a density that allows the completion of a 3D Block Model and preliminary economic evaluation.

## ii) <u>Summary of Work Done</u>

Twenty-two (22) reverse circulation rotary drillholes were completed for a total of 4,811 metres. Coal seams exposed on drillsite access roads were mapped and surveyed (GPS).

All of the holes were gamma-neutron logged through the drill rods and all but two (2) holes were also logged for gamma density and deviation.

#### iii) <u>Results and Conclusions</u>

Of the twenty-two (22) holes drilled on Henretta Ridge in 1995; nineteen (19) intersected seam 115 and thirteen (13) intersected seam 130.

Seam 130, which was intersected near outcrop in RH #2485, varies dramatically in both thickness and character. In RH #2485, seam 130 is 7.4 metres thick. A thin parting (1.4 metres) separates 130 from 121 seam, which is 5.6 metres thick. This situation persists down dip (northwest) for approximately 550 metres. In RH #2482 located 620 metres down dip, seam 130 has thinned to 4.6 metres, and the 130/121 parting has increased to 10.4 metres. This situation occurs to the north, between RH #2478 and RH #2442, and to the south between RH #2438 and RH #2489. In the extreme southwest corner of Henretta Ridge, approximately 1,600 miles down dip from outcrop, seam 130 has thinned to 2.3 metres, and the 130/121 parting has increased to 77.5 metres.

Seam 115, which is the most persistent commercially important seam on Henretta Ridge, also thins dramatically from northeast to southwest. Near outcrop, seam thickness in the 10 metre range are common (RH #2485, RH #2372). Further down dip, however, seam thicknesses in the 3 to 6 metre range are the norm (RH #2481, RH #2482).

The variability of seam and parting thickness in the 130 to 115 horizon appears to be depositional in origin, as evidenced by the gradational nature of these changes. Although several minor thrust faults are found on Henretta Ridge the somewhat dramatic seam thickening does not seem to be directly related to the faulting. Indirectly, lateral displacement along the fault planes may interrupt the gradational nature of the thickness changes.

Of the holes drilled on the lower north facing slope, only RH #2449 intersected a recognizable 130 seam. In the drillholes located at the base of the north slope, (RH #2446, 2447 and 2448), seam 130 has shaled out almost completely (1.0 metres thick). The section downward from seam 121, however, is intact and continuous.

Results from the 1995 exploration program allowed the completion of a 3D Block Model for Henretta Ridge. Economic evaluation and a conceptual pit design were completed in the first quarter of 1996.

**References:** 

- i) Illustration No. 3a: Henretta Ridge Area Program
- ii) Illustration No. 3b: Geological Cross Section 155,400N
- iii) Appendix 1: Drillhole Logs
- iv) Appendix 2: Sample Analyses

#### 2. <u>Turnbull Ridge Area</u>

## i) <u>Objectives</u>

Previous drillhole information on the south face of Turnbull Ridge was confined to the lower one-third of the slope. Field mapping on the crest of the ridge encountered up to twenty (20) seam exposures. Seam identifications and correlations with those on Eagle Mountain and Brownie Ridge, however, could not be confirmed without drillhole information.

The objective of the 1995 Turnbull Ridge program was to intersect the entire section of strata from the two easternmost fault blocks, and provide the seam location, thickness, and quality information required to identify and correlate the ridge crest seams with those on the lower flank of Turnbull Mountain and ultimately, with those on Eagle Mountain and Brownie Ridge.

## ii) <u>Summary of Work Done</u>

Three (3) reverse circulation rotary holes were completed for a total of 1,507 metres. All three holes were geophysically logged for gammaneutron, density and deviation.

## iii) <u>Results and Conclusions</u>

All three holes intersected seams from the lower two fault blocks (220 and 230). The easternmost hole (RH #295) is entirely within the lower block (230). The two westernmost holes (RH #296 and RH #293) are entirely within the middle fault block (220).

In the easternmost hole section from the #9 seam horizon down to basal sandstone was intersected. The #5 seam series is missing entirely in this hole.

In the middle hole, RH #296, seams from the #9 seam to basal sandstone horizon were intersected. The westernmost hole (RH #293) intersected seams from the #14 to #5 seam horizon.

The coal seams intersected on Turnbull Ridge are generally thinner and more widely spaced than their counterparts in upper Clode Creek and in Brownie Pit. Stripping ratios are therefore much less attractive; at least in the area investigated by the 1995 drillholes.

## **References:**

- i) Illustration No. 4a: Turnbull Ridge Area Program
- ii) Appendix 1: Drillhole Logs
- iii) Appendix 2: Sample Analyses

## 3. <u>Turnbull West Area</u>

## i) <u>Objectives</u>

Results from the 1993 and previous drilling programs allowed completion of a preliminary dragline mining plan for the lower slope on the west face of Turnbull Mountain. Although the present drillhole density is quite good, the area is affected by several minor normal and thrust faults.

The objective of the 1995 drilling program was to bring the drillhole density within the pit area to a level sufficient for detailed dragline mine design.

#### ii) <u>Summary of Work Done</u>

Eleven (11) reverse circulation rotary holes were completed for a total of 1,063 metres. All holes were geophysically logged (gamma-neutron) through the drill rods. All but one hole (RH #2506) were also logged for gamma-density.

#### iii) <u>Results and Conclusions</u>

In the three northernmost holes (RH #2501, 2502 and 2503) seam #7 is split into several thin bands. This is due to proximity to the Ewin Pass Thrust Fault which defines the northern and eastern pit limits. In RH #2504 an intact thickness (10.9 metres) of seam #7 was intersected. A 1.0 metres band of coal at 75 metres represents the location where seam #5 has been cut off by the Ewin Pass Thrust.

The remaining seven (7) holes intersected full thicknesses of both #7 and #5 seam. RH #2057 continued through the Ewin Pass Thrust and intersected a 4.5 metre seam approximately 5 metres below the footwall of #5 seam. This is probably a repeat of seam #7. RH #2508 continued below the footwall of #5 seam and intersected 3.5 metres of #4 seam, 25.7 metres below #5 seam.

Results from the 1995 program will allow completion of the final Pit Design for West Turnbull.

#### References:

- i) Illustration No. 5a: Turnbull West Area Program
- ii) Illustration No. 5b: Geological Cross Section 152,000N
- iii) Appendix 1: Drillhole Logs
- iv) Appendix 2: Sample Analyses

#### 4. <u>Henretta North Pit Area</u>

## i) <u>Objectives</u>

Upon completion of the final pit design in 1994, it became evident that a few "gaps" existed in the drillhole information; particularly in the extreme northeast corner of the pit and in the synclinal axis region.

The objective of the drilling program in Henretta North Pit was to provide the required fill-in information for seams 121, 120 and 115.

#### ii) <u>Summary of Work Done</u>

Six (6) reverse circulation rotary holes were completed for 453 metres. All holes were gamma-neutron logged through the drillrods. All but RH #2495 were logged for density as well. Seam 121 and 120 subcrop exposures were mapped and surveyed.

#### iii) <u>Results and Conclusions</u>

All six (6) holes intersected seam 115/113. Three (3) holes intersected seams 121 and 120 as well as 115. Two (2) holes, RH #2494 and #2500 were collared below seam 121. The most striking feature revealed by the 1995 drillholes in Henretta North Pit is the rapid increase in thickness of the 121 to 120 seam parting from southwest to northeast. Parting thickness increases from 2.5 metres in RH #2496 to over 21.0 metres in RH #2499, a horizontal distance of only 300 metres.

Results from the 1995 program provided the fill in information required for short range mine planning.

#### **References:**

- i) Illustration No. 6a: Henretta North Pit Area Program
- ii) Illustration No. 6b: Geological Cross Section 154,300N
- iii) Appendix 1: Drillhole Logs
- iv) Appendix 2: Sample Analyses

## 5. <u>Brownie Pit Area</u>

#### i) <u>Objectives</u>

The dip of seam 090 in the 230 fault block in Brownie Pit is almost parallel to the dip of the fault plane, making it difficult to accurately project where the seam is truncated by the fault. Accurate location of this cutoff is critical to the final highwall design.

The objective of the drilling program in this area was to accurately define the 090 seam cutoff over the entire width of Brownie Pit.

## ii) Summary of Work Done

Eleven (11) reverse circulation rotary drillholes were completed for 2,041 metres. All holes were geophysically logged for gamma-neutron, gamma-density and hole deviation.

#### iii) Results and Conclusions

Eight (8) holes intersected seam 090 (230 block) after passing through the Brownie Ridge Thrust Fault. In the remaining three (3) holes, seam 090 was cutoff by the thrust fault and 070 seam was intersected below the fault.

In several holes, the Brownie Ridge Thrust has up to two splays off the main thrust plane. These splays range from 10 to 80 metres (vertical) from the main fault, and cause minor repeats of seam 052 in RH #2462, 040 in RH #2469, and seam 090 in RH #2466. Splays exist both above and below the main thrust plane.

Results from the 1995 drilling program allowed completion of the final design for the eastern highwall in Brownie Pit.

#### **References:**

- i) Illustration No. 7a: Brownie Pit Area Program
- ii) Illustration No. 7b: Geological Cross Section 150,462N
- iii) Appendix 1: Drillhole Logs
- iv) Appendix 2: Sample Analyses

## 6. Eagle South Pit Area

## i) <u>Objectives</u>

The ultimate pit bottom in Eagle South Pit is determined by the stripping ratio below seam #7 footwall. This stripping ratio is determined by:

- the thickness of the #5 seam series, which thins drastically from north to south and;
- ii) the location of the Ewin Pass Thrust plane, which could bring
  "repeated" seams within acceptable stripping ratios of the footwall of
  #7 seam.

The objective of the drilling program in Eagle South Pit was to obtain thickness and location for the #5 seam series and "repeated" seams beneath the Ewin Pass Thrust Fault. It is realized that additional drilling will be required over the next several years, as the pit elevation decreases, and areas further to the south become accessible.

#### ii) <u>Summary of Work Done</u>

Three (3) reverse circulation rotary drillholes were completed for 673 metres. All three holes were geophysically logged for gamma neutron and gamma density. All but RH #2433 were logged for hole deviation.

#### iii) <u>Results and Conclusions</u>

All three holes intersected "normal" thicknesses for seams 110 to 070. In the two westernmost holes (RH #2434 and RH #2433), more than 100 metres of section was drilled below #7 seam. No significant coal seams were encountered below #7 seam, in either hole. The #5 seam series, when present, is normally within 50 to 60 metres of the #7 seam footwall.

In the easternmost hole, RH #2430, seam 11 was intersected 65 metres below the footwall of #7 seam; obviously on the opposite side of the Ewin Pass Thrust. A 1.2 metre seam located 50 metres below #7 seam is likely a thinned out remnant of 051 seam.

Results from the 1995 drilling program in Eagle South Pit show that the seam 070 footwall will be the bottom of the pit in all areas except, possibly, along the eastern pit limit. Additional drilling will be required to determine whether seams from the lower thrust block can be economically mined below 070 seam.

## References:

- i) Illustration No. 8a: Eagle South Pit Area Program
- ii) Illustration No. 8b: Geological Cross Section 148,900N
- iii) Appendix 1: Drillhole Logs
- iv) Appendix 2: Sample Analyses

						D4
GEOL	,2433	25598.040	148699.100	2075.274		
GEOL	2434	25500.200	148799.510	2075.380		
GEO <del>L</del>		-24997.641	-154921.738-	1998.060	<u> </u>	-
GEOL	2446	24332.872	155369.894	1792.380		
GEOL	2447	24203.956	155237.181	1788.750		
GEOL	2448	24075.344	155095.086	1796.250		
GEOL	2449	24359.024	155144.096	1875.530		
GEOL	2450	24550.204	155297.718	1882.930		
GEOL	2461	27089.020	150545.140	2209.160		
GEOL	2462	27033.286	150509.107	2208.880		
GEOL	2462	27033.290	150509,100	2208.880		
GEOL	2463	27085.840	150360.800	2209.820	•	
GEOL	2464	27090.404	150276.700	2209 092		
GEOL	2465	27160.110	150099.000	2209.092		
GEOL	2466	27182 624	149990 500	2194 060		
GEOL	2467	27248 870	149789 710	2174 560		
CEOL	2467	27240.070	150645 200	21/4.002		
CROT.	2460	27049.240	150466 699	2210 100		
CECL	2409	27067.001	150400.009	2210.100		
CEOL	2409	27007.001 27027 420	150466.700	2210.100		
GEOL	2470	27037.430	150467.100	2209.420		
GEOL	24/1	27066.521	150588.300	2209.190		
GEOL	2476	24735.370	155457.530	1891.310		
GEOL	2477	24554.235	155146.166	1934.510		
GEOL	2478	24775.146	155247.886	1958.190		
GEOL	2479	24174.923	154742.049	1903.770		
GEOL	2480	24367.799	154798.260	1922.270		
GEOL	2481	24585.657	154913.958	1960.900		
GEOL	2482	24876.402	155089.063	2053.110		
GEOL	2483	25337.747	155223.251	2083.250		
GEOL	2484	25212.677	155410.780	2076.750		
GEOL	2485	25425.692	155381.464	2164.420		
GEOL	2486	24226.394	154596.628	1883.030		
GEOL	2487	24371.013	154539.691	1874.970		
GEOL	2488	24723.248	154667.289	1898.750		
GEOL	2489	25091.418	154927.337	1997.690		
GEOL	2490	25364.351	155074.688	2003.630		
GEOL	2491	24894.853	155400.000	1969.130		
GEOL	2492	25237.120	155281.660	2142.410		
GEOL	2495	24620.280	153974.030	1740.089		
GEOL	2496	24594.142	154270.752	1803.160		
GEOL	2497	24755.071	154347.133	1825.580		
GEOL	2498	24568.244	154379.214	1820.370	1	
GEOL	2499	24791.986	154502.713	1861.360	2.5	
GEOL	2500	24859.390	154552.849	1878.640		
GEOL	2501	23707.614	152489.058	1793.650	•	
GEOL	2502	23690.546	152414 668	1790 570		
GEOI.	2503	23749 966	152412 705	1821 050		
GEOL	2504	23752 401	152295 065	1833 800		
GEOL	2505	23733 602	152225.005	1017 /00		
GEOL	2505	23789 022	152120.442	1945 040		
GEOL CEOL	2500	23703.032	152129.042	1953 660		
GEOL	2507	23003.275	151006 222	1033.000		
CECT	2500	22110.020 22017 221	15100.223	1050.4LU		
GEOI	2303	4301/.441 99077 EEA	151040 040	1006.010		
GEOL	401U 0511	430//.339	151670.049	1040.010		
GEUL	401 <u>1</u>	24045.246	100000000	1840.980		
GEOL	4-45	2/508.207	149560.030	2121.830		
GEUL	4-40	4/535.578	149462.143	2122.220	-	
GEUL	4-47	27558.240	149388.400	2120.360		
GEOL	4-48	27568.572	149335.430	2121.030		
GEOL	4-49	27570.590	149240.230	2120.750		

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COM	1995	EXPI	ORATION	GEO	LOGY E	RILL	HOLE P/U	MASTER	FILE
GEOL	1-6		27580.4	17	14956	0.624	1 2121	.370	
GEOL	1-7		27598.9	58	14948	3.809	) 2122	.050	
GEOL	1-8		27612.2	40	14933	4.300	) 2121	.270	
$\operatorname{GEOL}$	11-1	-00	26271.8	30	14894	0.200	) 2089	.200	
GEOL	11-1	203	25720.8	00	14908	3.920	) 2092	.142	
GEOL	11-1	.04	25651.8	94	14903	7.600	) 2074	.802	
GEOL	11-1	.05	25576.3	22	14898	5.930	) 2090	.020	
GEOL	11-1	.06	25618.4	90	14915	2.640	) 2075	.930	
GEOL	11-1	07	25660.8	40	14924	4.810	2088	.881	
GEOL	11-1	08	25589.1	70	14931	6.700	2089	.230	
GEOL	11-1	11	25517.2	40	14914	0.900	2073	792	
GEOL	11-1	12	26694.8	33	15040	5 200	2225	130	
GEOL	11-1	13	26739.9	00	15024	1 200	) 2225	190	
GEOL CROL	11_1	14	26771 1	50	15011	n 400	) 2222	320	
CEOL	11_1	15	26794 7	10	15003	A 5AC	) 2220	750	
CROL	11_1	16	267011	<u>د</u> ٥	1/005	0 200	) 2224	.750	
CROL	11_0	120	20003.4	20	1/026	5.30C	) 2224	.940	
CEOD	11 0	2 ) 2	26103.0	20	1/00/	3.730		.560	
GEOD	77-2		26000.0	02	14016	4./10		.480	
GEOL	11-9	14	2010/09	90	14910		2089	.850	
GEOL	77-2		26084.9	04	14917	0.740	2089	.660	
GEOL	77-2	0	261/5.0	01	14907	4.810	2091	.120	
GEOL	11-9		26099.9	33	14908	5.200	2089	.970	
GEOL	11-9	8	26255.0	50	14903	4.700	2090	.110	
GEOL	11-9	9	26314.9	80	14896	6.430	2090	.050	
GEOL	11.1	.10	25487.5	06	14922	5.250	2075	.000	
GEOL	110-	-2	24289.4	61	15368	0.629	1719	.350	
GEOL	110-	3	24263.6	14	15373	1.327	7 1718	.800	
GEOL	12-1	.04	25946.3	70	14934	0.640	2088	.970	•
GEOL	12-1	.05	25844.9	80	14925	8.000	2082	.440	
GEOL	12-1	.06	25784.7	60	14918	6.400	2088	.450	
GEOL	12-1	.07	25779.1	00	14935	2.230	2081	.560	
GEOL	12-1	.08	25053.3	22	14959	9.200	) 2165	.420	
GEOL	12-1	.09	24996.2	10	14977	6.820	) 2166	.882	
GEOL	12-1	.10	24953.8	00	14986	9.310	) 2164	.322	
GEOL	12-1	.11	26754.0	70	15002	1.900	) 2226	.040	
GEOL	12-9	8	25992.3	80	14918	5.400	) 2089	.622	
GEOL	12-9	9	25992.7	22	14927	0.400	) 2090	.502	
GEOL	121-	1	24381.6	48	15405	4.189	) 1763	.800	
GEOL	13-1	.69	25295.2	32	14954	9.820	) 2165	.690	
GEOL	13-1	.70	26527.6	64	15056	0.200	) 2223	.240	
GEOL	13-1	.72	26611.6	60	15033	8.640	) 2224	.480	
GEOL	13-1	.73	26638.2	10	15024	1.900	) 2224	.060	
GEOL	13-1	.74	26657.2	10	15016	0.700	) 2225	.300	
GEOL	14-1	.49	25657.4	74	14954	9.500	) 2164	.820	
GEOL	14-1	.50	25501.3	80	14981	2.500	) 2165	.822	
GEOL	14-1	.52	25554.5	25	15002	5.378	3 2182	.700	
GEOL	14-1	.54	25464.0	40	15016	9.979	2183	.620	
GEOL	14-1	.55	25566.3	42	15034	0.586	5 2155	.250	
GEOL	14-1	.56	25478.6	29	15030	5.552	2159	.110	
GEOL	14-1	.57	25380.9	80	15029	0.400	) 2168	.250	
GEOL	14-1	.58	25258.5	00	15008	4.430	) 2181	.252	
GEOL	14-1	.60	26598.2	08	15003	6.092	2268	.640	
GEOL	14-1	.61	26669.7	75	15005	6.813	3 2272	.510	
GEOL	14-1	.62	26687.9	57	14996	8.807	7 2269	.140	
GEOL	14-1	.63	26548.4	42	14977	9.673	3 2271	.380	
GEOL	14-1	.64	26512.8	45	14973	7.809	2270	.010	
GEOL	14-1	.65	26462.9	52	14977	3.363	2255	.730	
GEOL	2430	)	26325.4	50	14889	8.510	) 2089	.780	

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GEOL	4-50	27239.344	149475.203	2119.190
GEOL	å-51	27204.175	149417.680	2121.910
GECL	4-52	27252.514	149369.237	2123.320
GEOL	4-53	27273.068	149296,666	2120.740
GEOL	4-54	27301.674	149175.417	2121.950
GEOL	4-55	27100.450	150489.540	2210.600
GEOL	4-56	27131,800	150366 000	2209 540
GEOL	4-57	27180 646	150160 661	2208 710
GEOL	5-72	27470 970	149303 710	2120 470
CEOL	5-73	27407 201	149154 000	2120.470
CEOL	5-74	27497.201	150416 400	2220.090
CROT.	7-59	27000.004	149531 400	2209.192
GEOT	7-59	27237.730	150075 200	2120.910
CROL	7-60	27327.135	140202 000	2210.200
CTOL	7-60	27401.790	149392.900	2120.430
GEOD	7-61	2/410.093 27411 124	149219.030	2120.170
GEOL	7-62	27411.124 27420 574	149119.000	4120.470
GEOL	7-63	27428.574	149066.900	2121.830
GEOL	7-64	27194.122	150614.814	2210.090
GEOL	7-65	27214.031	150540.499	2209.330
GEOL	7-66	27232.789	150451.530	2210.320
GEOL	7-67	27258.773	150369.547	2210.480
GEOL	7-69	27327.101	150075.382	2210.200
GEOL	7-70	26861.620	150550.282	2209.940
GEOL	7-71	26881.585	150476.051	2209.840
GEOL	7-72	26899.847	150406.331	2209.960
GEOL	7-73	26920.189	150307.328	2210.406
GEOL	7-73	26920.890	150308.073	2209.860
GEOL	7-76	26978.410	150012.429	2210.450
GEOL	9-100	27100.361	150700.500	2209.842
GEOL	9-101	27104.537	150624.757	2210.352
GEOL	9-102	27149.823	150557.472	2209.190
GEOL	9-103	27176.191	150481.620	2209.270
GEOL	9-104	27208.755	150396.093	2209.950
GEOL	9-107	26750.320	150465.875	2210.951
GEOL	9-107	26750.339	150465.839	2211.000
GEOL	9-108	26772.057	150375.413	2211.260
GEOL	9-108	26772.160	150375.375	2211.401
GEOL	9-109	26793.322	150281.437	2210 852
GEOL	9-111	26851.977	149972.281	2222 530
GEOL	9-112	27366 220	149357 900	2121 330
GEOL	9-113	27382 852	149215 476	2121.550
CROL	9-97	25156 770	149161 600	2120.590
GEOL	0-02	25002 942	149022 020	2007.030
GROT	9-90	23002.343	1/0112 7/0	4007.04U 2122 100
GEOL	2-22 2h202	21303.331 96986 EC9	152010 000	2122.IVV 2200 E20
CEOL	rh205	20200.302 27363 106	154010.000	4330.340
GEOD	TH722	2/303.100 27262 146	151004.943	2398.820
GEOD	200C	4/303.140 26946 014	151076 606	2398.UZU
GROP	TN296	20040.UI4	T2T910.000	2393.280

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