



## MOUNT POLLEY MINING CORPORATION

A DIVISION OF IMPERIAL METALS CORPORATION

MP000118

Mr. George Headley  
Ministry of Energy and Mines  
Mines Branch  
4<sup>th</sup> Floor, 1810 Blanshard Street  
Victoria, BC  
V8W 9N3

Our Reference: 11162/13.01

Number: 0/1223

May 25, 2000

Dear Mr. Headley:

**Mt. Polley Tailings Storage Facility**  
**Application to Construct to Elevation 944 Metres**  
**Amendment to Permit M-200**



Stage 2C of the Mount Polley Tailings Storage Facility (TSF) was completed to a crest elevation of 941 m in March of this year. We request approval from the Mines Branch to construct the Stage 3 embankment to a crest elevation of 944 m. This crest elevation will provide adequate storage capacity for tailings while providing freeboard for the design storm event until early 2002.

The design report for permitting and construction of Stage 3 and on-going stages of the Mount Polley TSF was submitted to your office for review in December 1999 (Knight Piésold Ref. No. 11162/12-2). The report describes the construction of the embankment downstream fill zones by direct placement of cycloned tailings underflow.

The preferred construction method was revised as part of the on-going design process whereby tailings underflow would be stockpiled and placed in the embankment fill by conventional mechanical placement methods. The details are described in the Addendum to the Stage 3 design report (Knight Piésold Ref. No. 11162/13-4).

MINISTRY OF  
ENERGY AND MINES

REC'D JUN 01 2000

We also considered rockfill as an alternative to cycloned sand in the downstream shell zones as part of the Stage 3 tendering process. The rockfill concept was originally presented in a Stage 2 design report (Knight Piésold Ref. No. 10162/9-3, December 1997).

The proposed method for Stage 3 construction includes the use of rockfill at the Main Embankment and cycloned sand at the Perimeter Embankment in order to construct the Stage 3 raise in a cost-effective and timely manner. The three embankments will be constructed as follows:

#### Main Embankment

The Stage 3 Main Embankment shall consist of a downstream raise as shown on the attached Drawings (11162-13-210, 11162-13-215). The downstream shell zone shall consist of locally quarried rockfill.

The embankment includes a downstream rockfill buttress that brings the overall downstream slope to 3H:1V.

#### Perimeter Embankment

The Stage 3 Perimeter Embankment shall consist of a modified centreline raise. The downstream shell zone shall consist of cycloned sand placed by hydraulic methods to the greatest degree possible. Mechanical placement methods will be employed with drained cycloned sand, hauled from stockpiles, to construct the remaining downstream fill. The Perimeter Embankment details are shown in plan and cross section on the attached Drawings 11162-12-120 and 11162-12-125.

The intersection of the Main and Perimeter Embankments will incorporate suitably graded transition materials to provide a filter relationship between rockfill and cycloned sand.

South Embankment

The Stage 3 South Embankment shall consist of a homogeneous glacial till structure with a maximum height of approximately 2 m, as shown on the attached Drawing 11162-13-130.

We request that the permitting process be expedited, as the Contractor will be mobilizing June 1, 2000 and fill placement is expected to commence on June 21, 2000.

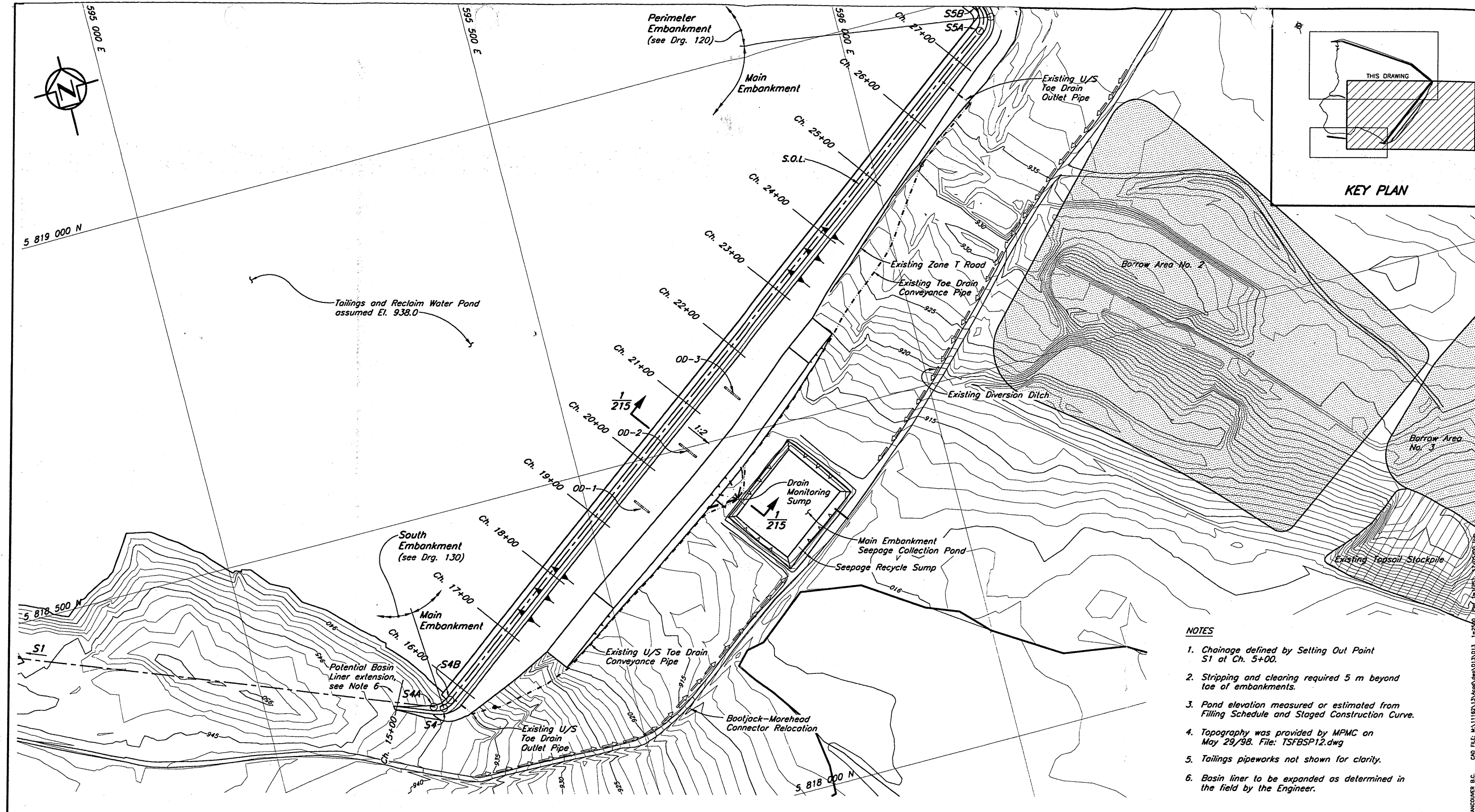
Please do not hesitate to contact the undersigned or Mr. Ken Brouwer or Mr. Jeremy Kinch of Knight Piésold should you have any questions regarding this request for approval.

Yours truly,

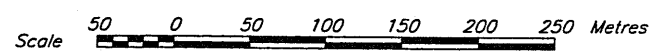
**MOUNT POLLEY MINING CORPORATION**

A handwritten signature in black ink, appearing to read "Don Parsons", is written over the printed name.

Don Parsons



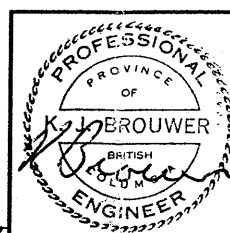
- NOTES**
1. Chainage defined by Setting Out Point S1 at Ch. 5+00.
  2. Stripping and clearing required 5 m beyond toe of embankments.
  3. Pond elevation measured or estimated from Filling Schedule and Staged Construction Curve.
  4. Topography was provided by MPMC on May 29/98. File: TSFBSP12.dwg
  5. Tailings pipeworks not shown for clarity.
  6. Basin liner to be expanded as determined in the field by the Engineer.



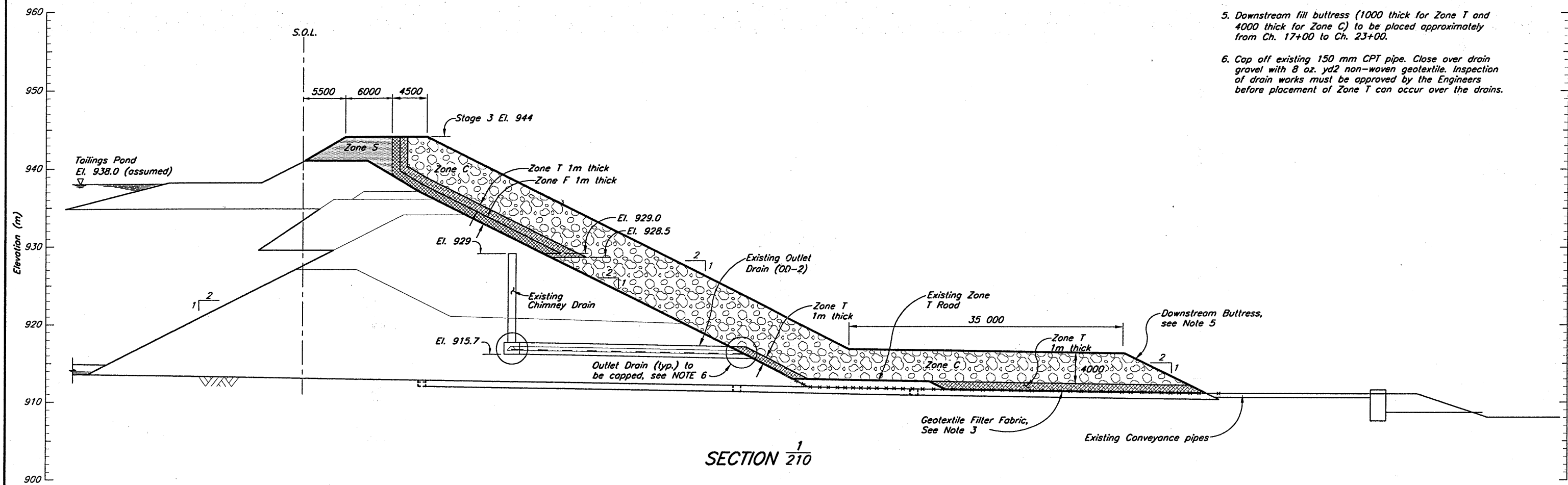
215	TSF - STAGE 3 MAIN EMBANKMENT - SECTION - OPTION 2
130	TSF - STAGE 3 SOUTH EMBANKMENT - PLAN AND DETAILS
120	TSF - STAGE 3 PERIMETER EMBANKMENT - PLAN - OPTION 1
DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						

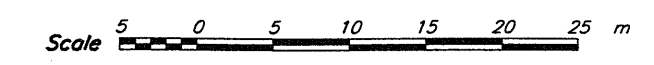
1	17MAY'00	ISSUED FOR TENDER ADDENDUM 3	JRK	TAM	WAL	KJS
0	14APR'00	ISSUED FOR TENDER	JRK	WAL		
REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						



MOUNT POLLEY MINING CORPORATION	
MOUNT POLLEY MINE	
TAILINGS STORAGE FACILITY	
STAGE 3 MAIN EMBANKMENT	
PLAN	
OPTION 2	
	SCALE AS SHOWN DRAWING NO. 11162-13-210 REVISION 1



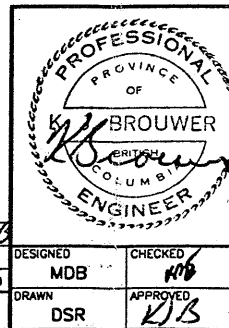
- NOTES**
1. For zone material specifications and legend see Drg. 104.
  2. All dimensions in millimetres and elevations in metres, unless noted otherwise.
  3. Geotextile Filter Fabric (8 oz./sq.yd.) to be placed on prepared ground from Ch. 17+00 to Ch. 23+00 as required.
  4. Stripping and clearing required 5 m beyond toe of embankment.
  5. Downstream fill buttress (1000 thick for Zone T and 4000 thick for Zone C) to be placed approximately from Ch. 17+00 to Ch. 23+00.
  6. Cap off existing 150 mm CPT pipe. Close over drain gravel with 8 oz. yd2 non-woven geotextile. Inspection of drain works must be approved by the Engineers before placement of Zone T can occur over the drains.



210	TSF - STAGE 3 MAIN EMBANKMENT - PLAN - OPTION 2
104	TSF - STAGE 3 - MATERIALS SPECIFICATIONS
DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						

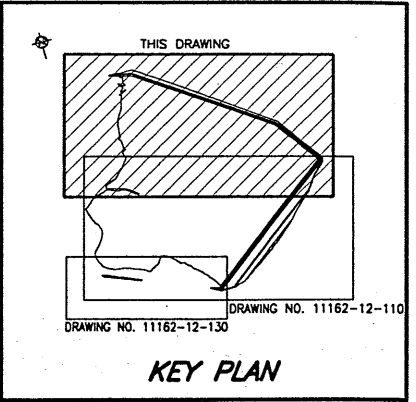
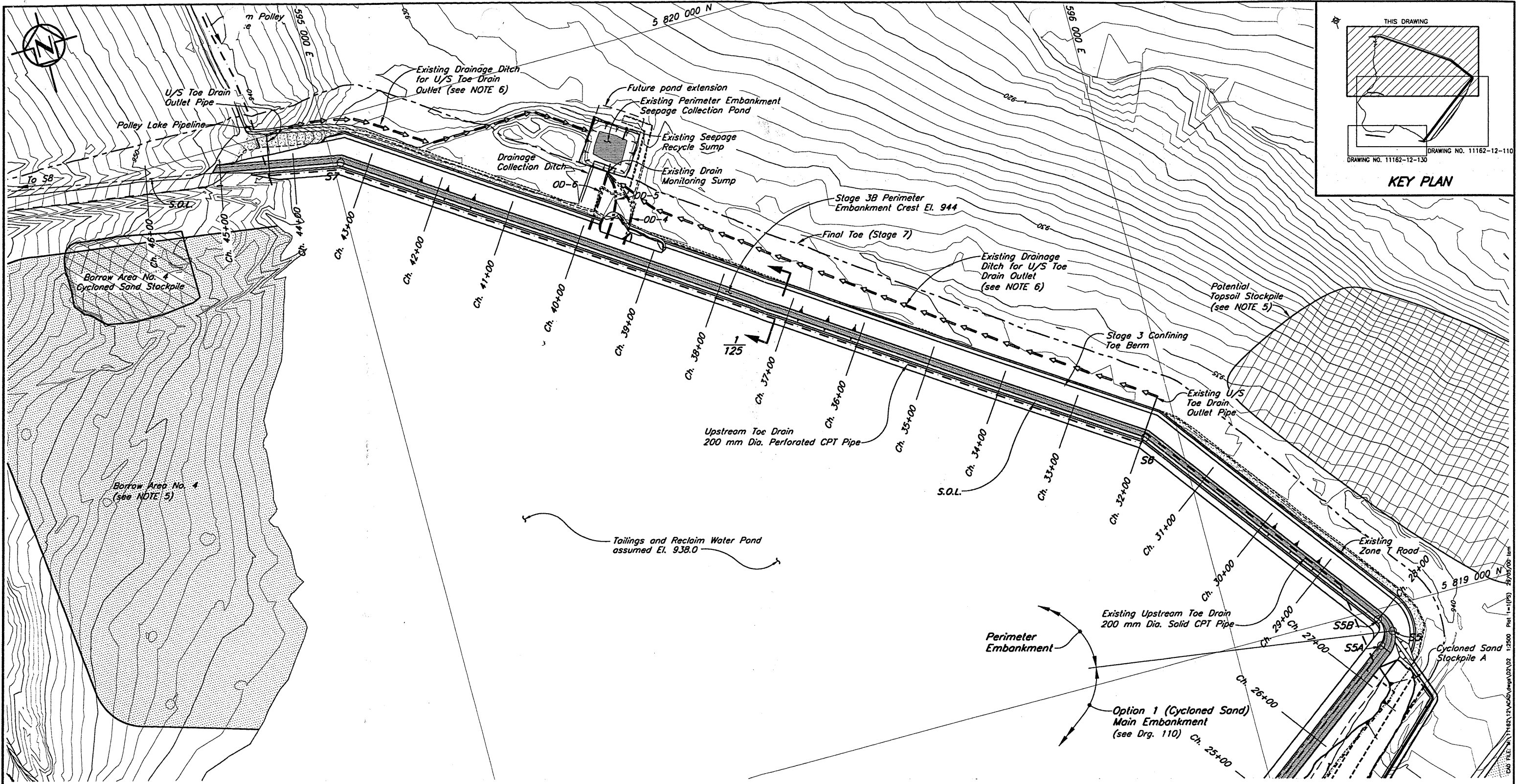
1	17MAY'00	ISSUED FOR TENDER ADDENDUM 3	JRK	TAM	WLB	KJS
0	14APR'00	ISSUED FOR TENDER	MOB	WAL		
REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						



MOUNT POLLEY MINING CORPORATION	
MOUNT POLLEY MINE	
TAILINGS STORAGE FACILITY	
STAGE 3 MAIN EMBANKMENT	
SECTION	
OPTION 2	
	SCALE AS SHOWN DRAWING NO. 11162-13-215 REVISION 1

XREF FILE :

CAD FILE: M:\11162\13\ACAD\dwg\DSR\DSR.DWG 1=250 Plot 1=1(P/S) 17/05/00 km VANCOUVER B.C.



EMBANKMENT SETTING OUT POINTS			
Point	Northing	Easting	Chainage
S1	5 818 626.163	594 249.555	5+00.00
S4A	5 818 243.621	595 227.361	15+49.97
S4B	5 818 246.923	595 251.497	15+77.87
S4	5 818 238.539	595 240.350	15+63.92
S5A	5 818 951.971	596 188.906	27+50.83
S5B	5 818 986.958	596 193.873	28+00.78
S5	5 818 966.983	596 208.866	27+75.80
S6	5 819 304.035	595 955.881	31+97.23
S7	5 819 939.748	595 010.249	43+36.69
S8	5 820 053.034	594 396.471	49+60.83

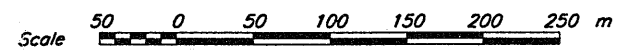
NOTES

- Chainage defined by Setting Out Point S1 at Ch. 5+00.
- Stripping and clearing required 5 m beyond toe of embankments.
- Topography at TSF generated from points and break lines sent from MPMC in July 1999. The Topography outside the TSF area is from 1997 flyover.
- Tailings pipeline on embankment crest not shown for clarity.
- Current size and location of potential and existing Borrow Areas and Topsoil Stockpiles are to be confirmed.
- U/S Toe Drain Outlet Drainage Ditch to be extended as required to contain drainage water from cycloning operations.

LEGEND

--- Outlet Drain No. 4  
OD-4

NOT FOR CONSTRUCTION

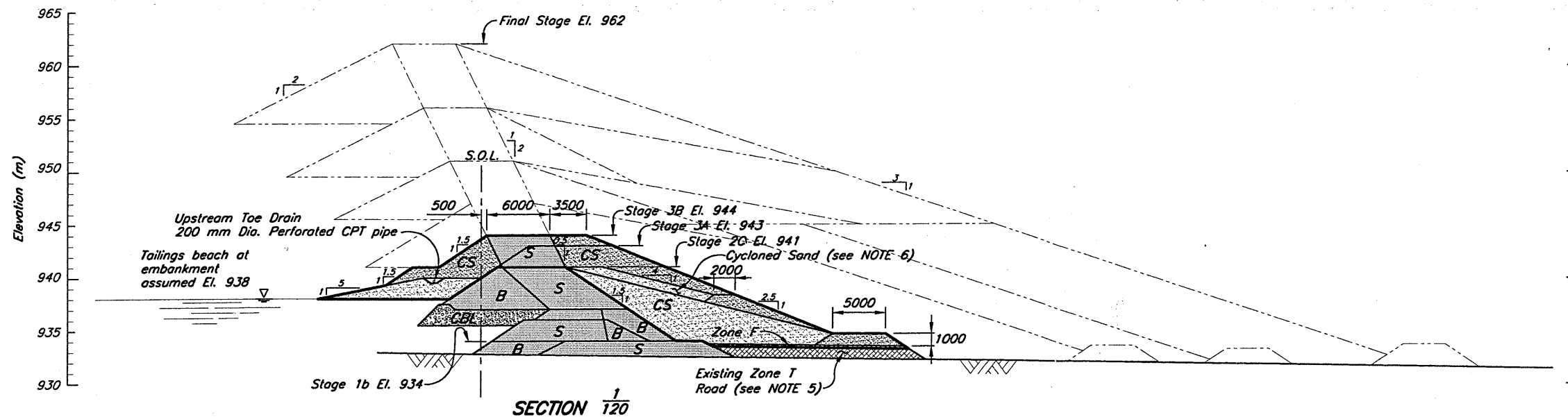


DRG. NO.	DESCRIPTION	REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
125	TSF - STAGE 3 PERIMETER EMBANKMENT - SECTIONS							
115	TSF - STAGE 3 MAIN EMBANKMENT - SECTIONS AND DETAILS							
110	TSF - STAGE 3 MAIN EMBANKMENT - PLAN							
REFERENCE DRAWINGS				REVISIONS				

2	29MAY'00	GENERAL REVISIONS, ISSUED FOR PERMITTING	JRK	TAM	KJB
1	14APR'00	GENERAL REVISIONS, ISSUED FOR ADDENDUM REPORT	MDR	NSD	JRK
0	10DEC99	ISSUED FOR DESIGN REPORT	MDR	NSD	LAG
REVISIONS				DESIGN	

PROFESSIONAL ENGINEER  
K. BROWER  
COLUMBIA

MOUNT POLLEY MINING CORPORATION  
MOUNT POLLEY MINE  
TAILINGS STORAGE FACILITY  
STAGE 3 PERIMETER EMBANKMENT  
PLAN  
Knight Piésold CONSULTING  
SCALE AS SHOWN  
REVISION 2  
DRAWING NO. 11162-12-120



# NOTES

1. All dimensions in millimetres with elevations in metres, unless noted otherwise.
2. Geotextile Filter Fabric (8 oz./sq.yd.) to be placed on prepared ground as required.
3. For zone material specification and legend see Drg. 104.
4. Crest elevations and details of ongoing embankment raises are preliminary only and will be modified during future design stages.
5. Zone T road to be ripped prior to Zone F placement.
6. Actual quantity of Cycloned Sand placed by hydraulic methods will depend on operating conditions. The remaining cycloned sand fill will be placed by mechanical methods

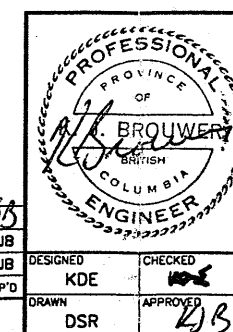
NOT FOR CONSTRUCTION

Scale 5 0 5 10 15 20 25 Metres

120	TSF - STAGE 3 - PERIMETER EMBANKMENT - PLAN
104	TSF - STAGE 3 - MATERIAL SPECIFICATIONS
DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

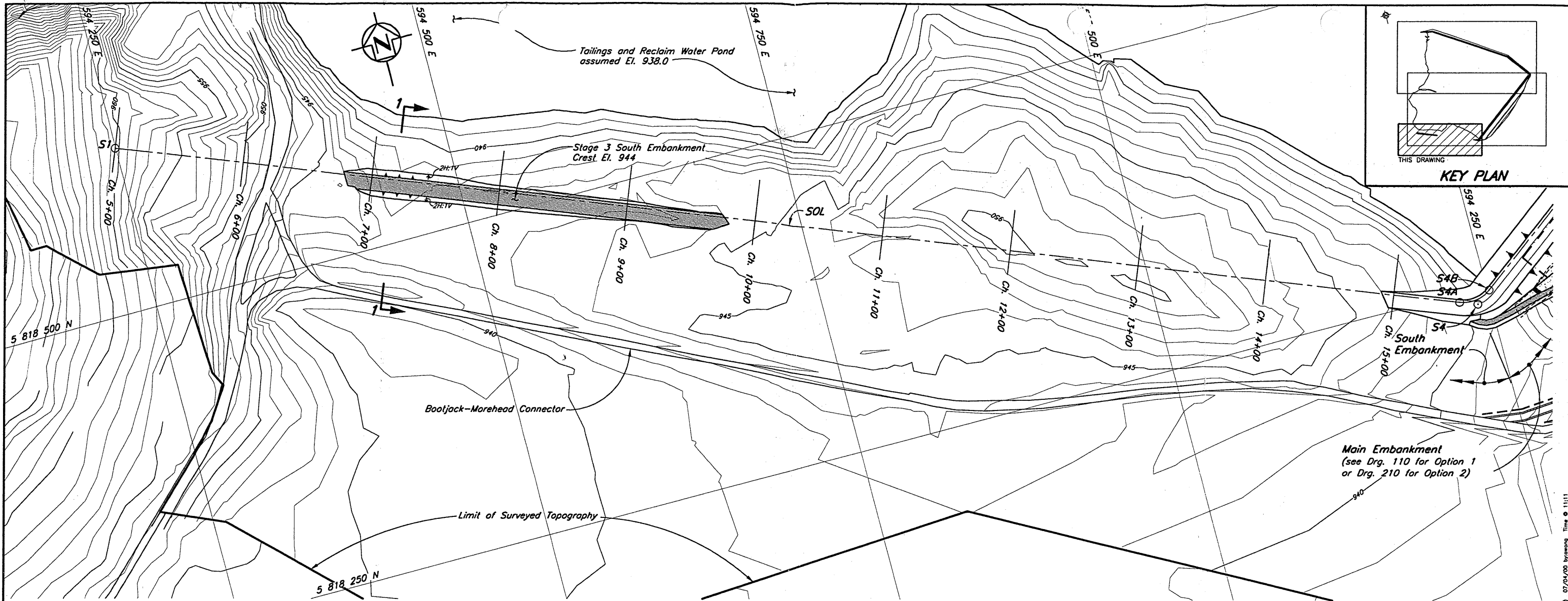
REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						

2	29MAY'00	GENERAL REVISIONS, ISSUED FOR PERMITTING	JRK	TAM	4/5	1/5
1	20APR'00	GENERAL REVISIONS, ISSUED FOR ADDENDUM REPORT	MDR	TAM	JRK	KJB
0	10DEC'99	ISSUED FOR DESIGN REPORT	MDR	NSD	LAG	KJB
REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
REVISIONS						

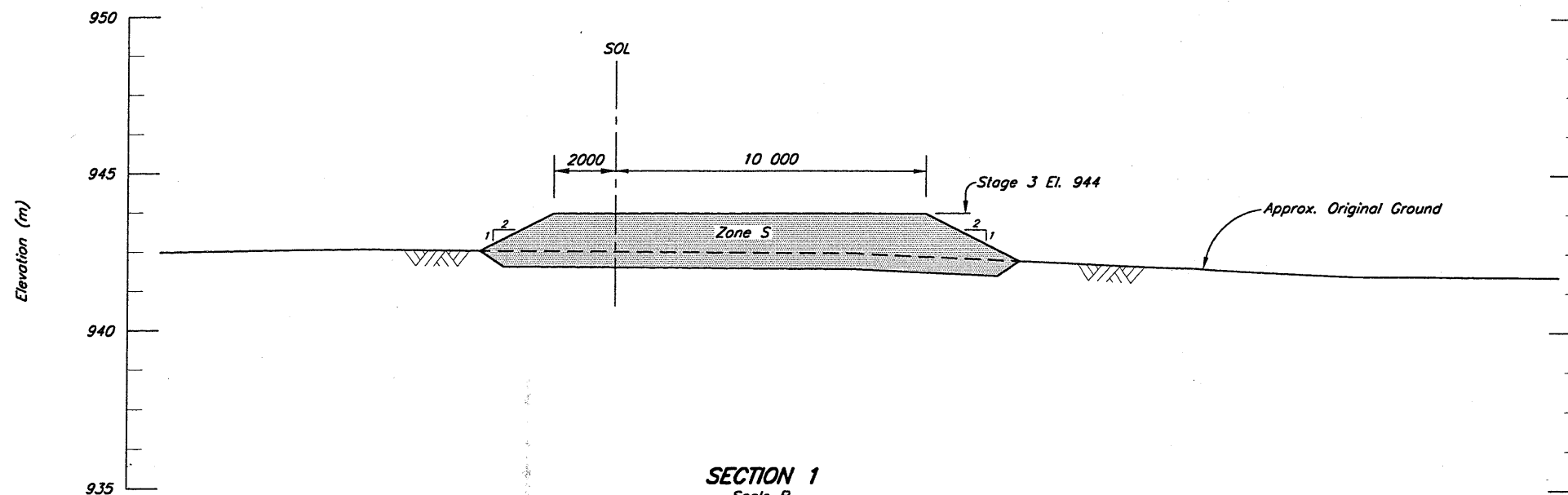


MOUNT POLLEY MINE CORPORATION	
MOUNT POLLEY MINE	
TAILINGS STORAGE FACILITY STAGE 3 PERIMETER EMBANKMENT SECTION	
DESIGNED KDE	CHECKED KJB
DRAWN DSR	APPROVED KJB
<b>Knight Piésold</b> CONSULTING	
SCALE AS SHOWN	REVISION 2
DRAWING NO. 11162-12-125	





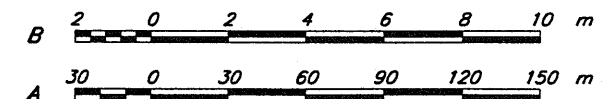
PLAN  
Scale A



SECTION 1  
Scale B

NOTES

1. All dimensions in millimeters and elevations in metres, unless noted otherwise.
2. Topography at TSF generated from points and break lines sent from MPMC in July 1999. The topography outside the TSF area is from 1997 flyover.
3. For Zone Materials Specifications and legend, see Drg. 104.
4. Stripping and clearing required for 5 m beyond toe of embankment.



REF FILE: TOP099, S1, SEMB

DRG. NO.	DESCRIPTION
120	TSF - STAGE 3 MAIN EMBANKMENT - PLAN - OPTION 2
110	TSF - STAGE 3 MAIN EMBANKMENT - PLAN - OPTION 1
104	TSF - STAGE 3 TAILINGS EMBANKMENT - MATERIALS SPECIFICATIONS

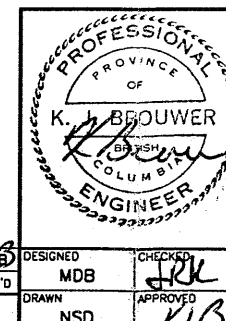
REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D

REVISIONS

REV.	DATE	DESCRIPTION	DESIGN	DRAWN	CHK'D	APP'D
0	14APR'00	ISSUED FOR TENDER	MDB	AW	JRK	KIB

REVISIONS



MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY  
STAGE 3 SOUTH EMBANKMENT  
PLAN AND SECTION

**Knight Piésold**  
CONSULTING

SCALE	AS SHOWN	REVISION	0
DRAWING NO.	11162-13-130		

CAD FILE: M:\11162\13\Main.dwg, 07/04/00 by: awg Time: 11:11



***Knight Piesold***  
CONSULTING

Suite 1400 - 750 West Pender Street  
Vancouver, B.C. V6C 2T8  
Telephone: (604) 685-0543  
Fax: (604) 685-0147

**TRANSMITTAL**

**TO:** Ministry of Energy and Mines  
**DATE:** May 31, 2000  
**REF NO:** 0/1223  
**FILE NO:** 11162/13.01  
**ATTENTION:** Mr. George Headley  
**RE:** Mt. Polley Tailings Storage Facility

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via \_\_\_\_\_  
the following items:

☐ Print(s) ☐ Reproducibles ☒ Letter(s) ☐ Specifications ☐ Disk(s)  
☐ Report(s) ☐ Shop Drawings ☐ Other \_\_\_\_\_

NO.	DESCRIPTION
1 Copy	Letter Number 0/1223, dated May 25, 2000 <del>XXXXXX</del> <del>XXXXXX</del>

**REMARKS:**

Copy To: Fred Hermann, MEM (+letter)  
Don Parsons, MPMC (+letter)

Signed: *R. Brown*

