MOUNT POLLEY PROJECT

CONSTRUCTION DRAWINGS

MP00007

GR1 2612

TABLE 1

MOUNT POLLEY PROJECT
CONSTRUCTION DRAWINGS

J:\JOB\DATA\1627\MISC\CONSTDRG.XLS 15-May-96

KP No.	Drawing No.	Rev. No.	Title	Plot Scale	Date Issued
D19	1625.200	4	Overall Site Plan	1=20	5/301997
D18	1625.201	6	Tailings Storage Facility - Basin Preparation and Basin Liner	1=5	5/301997
D20	1625.202	6	Tailings Storage Facility - Foundation Preparation and Basin Liner - Sections and Details	1=5	5/301997
D17	1625.205	6	Tailings Storage Facility - Stage Ib Tailings Impoundment - General Arrangement	1=5	5/301997
D51	1625.206	1	Tailings Storage Facility - Reclaim Barge Channel Excavation Details	1=2	5/301997
D55	1625.207	1	Tailings Storage Facility - Tailings Dam Chimney Drain	1=2.5	5/301997
D31	1625.210	5	Tailings Storage Facility - Main and Perimeter Embankments - Plan	1=2.5	5/301997
D21	1625.211	7	Tailings Storage Facility - Tailings Embankment - Sections and Details	1=0.5	5/301997
D30	1625.212	2	Tailings Storage Facility - Material Specifications	1=1	5/301997
D22	1625.213	7	Tailings Storage Facility - Sediment Control and Seepage Collection	1=2.5	5/301997
D23	1625.214	7	Tailings Storage Facility - Sediment Control and Seepage Collection - Sections and Details	1=0.5	5/301997
D26	1625.218	6	Tailings Storage Facility - Tailings Distribution and Reclaim System - Plan	1=5	5/301997
D27	1625.219	6	Tailings Storage Facility - Tailings Distribution and Reclaim System - Sections and Details	1=0.2	5/301997
D28	1625.220	7	Tailings Storage Facility - Instrumentation	1=2.5	5/301997
D29	1625.221	4	Tailings Storage Facility - Instrumentation - Sections and Details	1=0.02	5/301997
D42	1625.222	1	Tailings Storage Facility - Tailings Impoundment - Tailings and Reclaim Pipework Plan	1=5	5/301997
D40	1625.223	1	Tailings Storage Facility - Reclaim Pipeline Details	1=0.02	5/301997
D39	1625.224	1	Tailings Storage Facility - Tailings Distribution System - Details	1=0.05	5/301997
D41	1625.225	1	Tailings Storage Facility - Tailings Pipework Details Drop Box No 2	1=0.02	5/301997
D52	1625.226	1	Tailings Storage Facility - Reclaim Booster Pump Station Area - General Arrangement	1=0.25	5/301997
D48	1625.228	1	Tailings Storage Facility - Tailings Impoundment - Tailings and Reclaim Pipework Profiles	1=10	5/301997
D32	1625.230	5	Drainage Plan - Mine Site	1=5	8-May-97
D34	1625.231	6	Drainage Plan - Mill Site	1=1.25	5/301997
D33	1625.232	5	Drainage Plan - Sections and Details	1=0.1	8-May-97
D1	1627.001	0	Tailings Storage Facility - Geological Investigations - Plan	1=5	5/301997
D2	1627.002	0	Tailings Storage Facility - Geological Investigations - Section 1	1=2.5	5/301997
D3	1627.003	0	Tailings Storage Facility - Geological Investigations - Section 2	1=2.5	5/301997
D4	1627.004	0	Tailings Storage Facility - Geological Investigations - Section 3	1=2.5	5/301997
D5	1627.005	0	Tailings Storage Facility - Geological Investigations - Section 4	1=2.5	5/301997
D6	1627.006	0	Tailings Storage Facility - Geological Investigations - Section 5	1=2.5	5/301997
D7	1627.007	0	Tailings Storage Facility - Geological Investigations - Section 6	1=2.5	5/301997
D8	1627.008	0	Tailings Storage Facility - Geological Investigations - Section 7	1=2.5	5/301997
D9	1627.009	0	Tailings Storage Facility - Geological Investigations - Section 8	1=2.5	5/301997
D10	1627.010	0	Tailings Storage Facility - Geological Investigations - Section 9	1=2.5	5/301997
D11	1627.011	0	Tailings Storage Facility - Geological Investigations - Section 10	1=2.5	5/301997
D12	1627.012	0	Tailings Storage Facility - Geological Investigations - Section 11	1=2.5	5/301997

GR 1 2612

NOTES

1. Millsite layout as per CSFM Engineering.
2. As-built information from Mount Polley Mining Corporation.
3. Topography has not been updated from 1997 Flyover.
4. Pipeline alignments to be updated based on as-built survey.

Scale 1000 500 0 1000 2000 m

CAD FILE\1625\DIR\019 1:20000 Plot 1:20 MAY 30, 1997

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
4	MAY 30/97	AS-BUILT STAGE Ib EMBANKS, PONDS BARGE CHAN & SE SEDIMENT POND	KJB
3	MAY 24/96	ISSUED FOR CONSTRUCTION	
2	APRIL 1/95	MILLSITE AND CONTROL POND REVISED	
1	MAR 25/96	UPDATE OPEN PITS, WASTE DUMP, SITE DRAINAGE & ROADS	
0	JUNE 2/95	ISSUED FOR TENDER	
REVISIONS			

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — K. D. KUMBREE

DESIGNED	KDE/KGB
DRAWN	NSD/VY
CHECKED	KJB
APPROVED	KJB
DATE	JUNE 2, 1995
SCALE	AS SHOWN

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

OVERALL SITE PLAN

DRG. NO. 510-12-01-1625.200 REV. 4

595 000 E
5 821 000 N
Polley Lake
Creek
Polley Lake Pipeline
Bootjack
Perimeter Embankment seepage collection pond
Perimeter Embankment Stage Ib crest El. 934
6
Stripping limits (typ.)
Original Borrow Area
S.O.L., see Drg. No. 1625.205
Alternate Borrow Area
Topsoil Stockpile
Future Borrow Area
5 820 000 N
596 000 E
5 819 000 N
Main Embankment Stage Ib crest El. 934
Embankment Foundation Drains
Main Embankment Seepage Collection Pond
5 818 000 N
6 Basin liner limits, see Note 1
6 Reclaim barge channel
594 000 E
Tailings pipeline route
Tailings and Reclaim Pipeline
Reclaim pipeline route
Bootjack-Morehead Connector
Bootjack-Morehead Connector Relocation
S.O.L., see Drg. No. 1625.205
Scale 100 0 100 200 300 400 500 m

LEGEND

Stripped Areas

NOTES 6

1. Basin liner limits finalized from exploration trenches.
2. Stripped material to be stockpiled in designated areas for future reclamation use.
3. All drillholes in tailing basin grouted as per technical specifications.
4. Clearing around Perimeter Embankment Seepage Collection Pond finalized in the field.
5. Soft foundation soils to be removed as required by the Engineer.
6. As-built information provided by Mount Polley Mining Corporation.
7. Topography has not been updated from 1997 Flyover.
8. Geological Investigations are shown in plan on Drg. No. 1627.001 and on section on Drg. Nos. 1627.002 to 1627.012.

CAD FILE\1625\018\018 1:5000 Plot 1=5 MAY 30, 1997

DRG. NO.	DESCRIPTION
1625.205	TSF – STAGE Ib IMPOUNDMENT – GENERAL ARRANGEMENT

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
6	MAY 30/97	AS-BUILT LINERS, EMBANKMENTS, PONDS, AND BARGE CHANNEL	KJB
5	MAY 24/96	ISSUED FOR CONSTRUCTION	
4	APR 11/96	RE-ISSUED FOR TENDER	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
3	APRIL 1/96	NOTE 4 AND STRIPPING LIMITS	
2	MAR 25/96	UPDATE ROADS & DRAINAGE	
1	JULY 27/95	NOTE 4 AND STRIPPING LIMITS	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. BUMBEE

DESIGNED	KDE
DRAWN	RDT
CHECKED	KJB
APPROVED	KJB

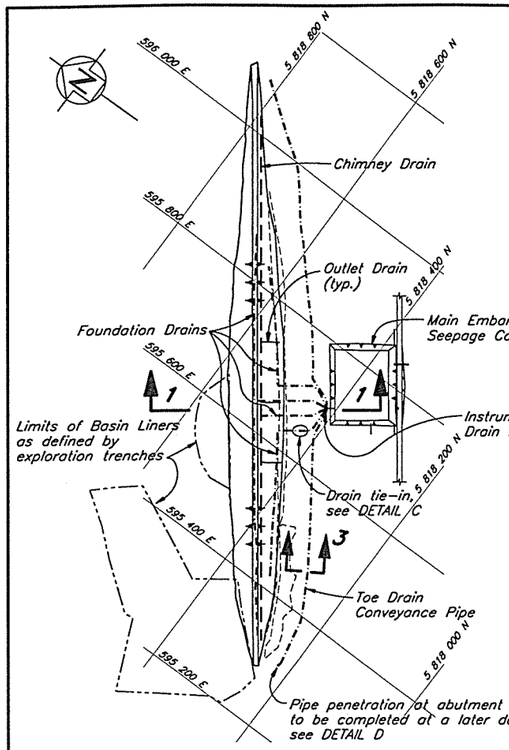
DATE JUNE 2, 1995 | SCALE AS SHOWN

MOUNT POLLEY MINING CORPORATION

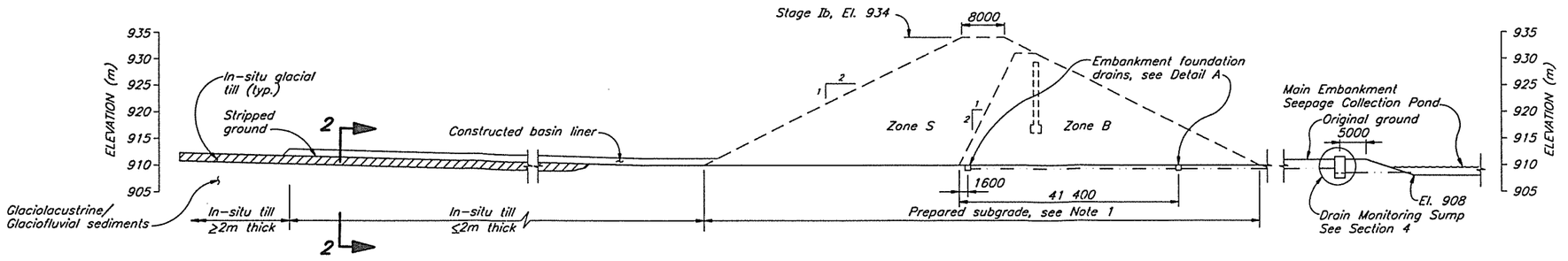
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY BASIN PREPARATION AND BASIN LINER

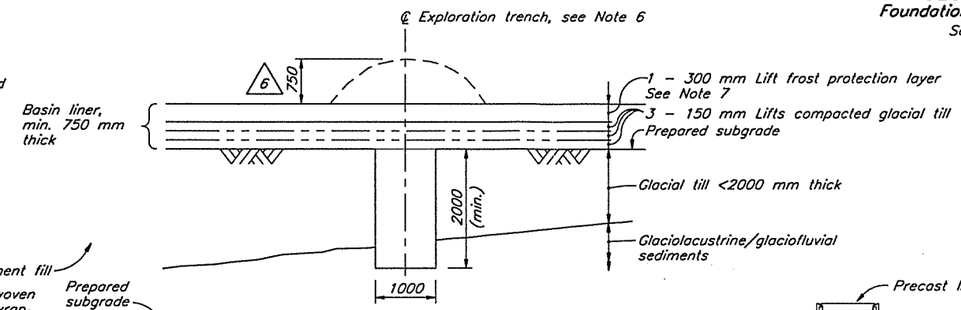
DRG. NO. 510-11-01-1625.201 | REV. 6



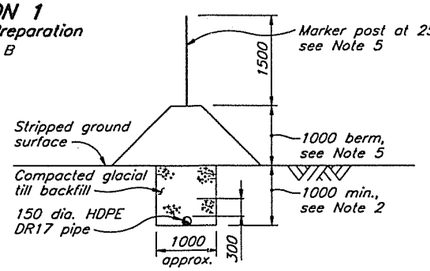
KEY PLAN △6
Scale A



SECTION 1
Foundation Preparation
Scale B



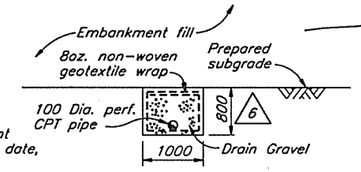
SECTION 2
Basin Liner
Scale D



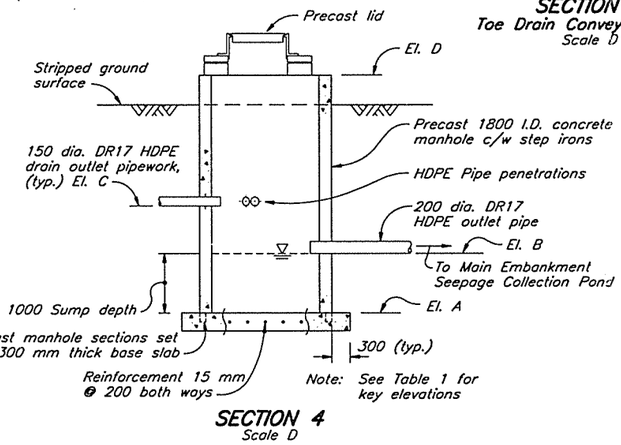
SECTION 3
Toe Drain Conveyance Pipe
Scale D

△6

Table 1		
ELEV.	MAIN EMBANKMENT	PERIMETER EMBANKMENT
A	907.5	925.5
B	908.5	926.5
C	909.3	927.0
D	911.5	930.5



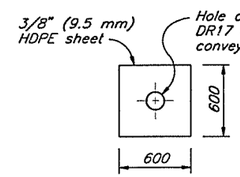
DETAIL A
Embankment Foundation Drain
Scale D



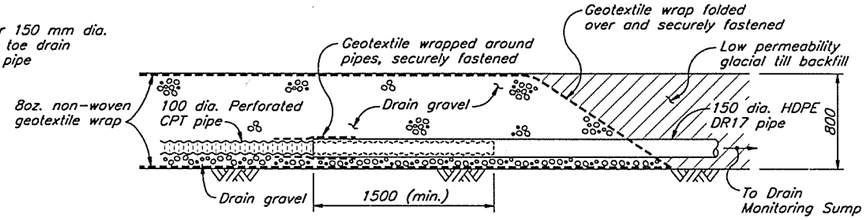
SECTION 4
Scale D

△6 NOTES

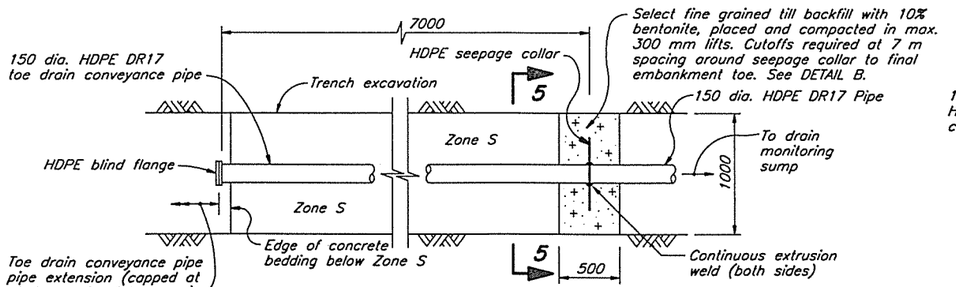
1. Subgrade preparation to comprise stripping of topsoil and organics and removing saturated materials to establish a competent, bearing surface for fill placement as directed by the Engineer.
2. All pipework to have a minimum of 1 m of cover for frost protection.
3. All HDPE pipe penetrations to be water tight.
4. Drain monitoring sump invert elevations shown on Table 1 may be adjusted in the field by the Engineer.
5. Buried pipework to be covered by a berm and clearly marked by a line of stakes.
6. Exploration trenches backfilled in compacted lifts, with additional material mounded at surface.
7. 300 mm Frost protection layer only required for Upper Basin Liner. Lower Basin Liner to have extra 450 mm placed in one lift for frost protection.
8. As-built information provided by Mount Polley Mining Corporation.



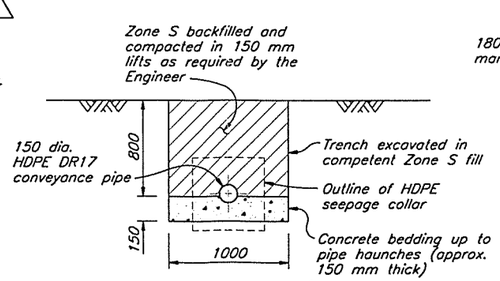
DETAIL B
HDPE Seepage Collar △6
Scale C



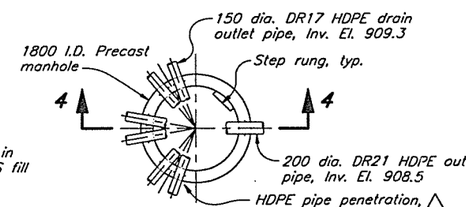
DETAIL C
Embankment Foundation Drain Tie-in (in Section) △6
Scale C



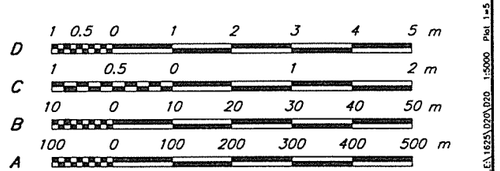
DETAIL D
Conveyance Pipe (in Plan) △6
Scale C



SECTION 5 △6
Scale C



DETAIL E
Drain Monitoring Sump
Scale D



C:\D_FILES\1625\V020\020 1:5000 Plot 1=5 MAY 30, 1997

REFERENCE DRAWINGS					
1625.210	TAILINGS STORAGE FACILITY – MAIN & PERIMETER EMBANKMENTS – PLAN				
1625.207	TAILINGS STORAGE FACILITY – TAILINGS DAM CHIMNEY DRAIN				
1625.111	TAILINGS STORAGE FACILITY – TAILINGS EMBANKMENT – SECTIONS & DETAILS				
DRG. NO.	DESCRIPTION				

REVISIONS				
6	MAY 30/97	AS-BUILT EMBANK., REVISED DRAIN DETAILS	KJB	
5	MAY 24/96	ISSUED FOR CONSTRUCTION		
REV.	DATE	DESCRIPTION	APPROVED	

REVISIONS			
4	APR 18/96	UPDATE FOR EXPLORATION TRENCH	
3	MAR 25/96	UPDATE DRAINAGE & SEEPAGE COLLAR	
2	JAN 18/96	REVISIONS FOR REVIEW COMMENTS	
1	JULY 15/95	FROST LAYER REVISED AND NOTE 9 ADDED	
0	JUNE 2/95	ISSUED FOR TENDER	
REV.	DATE	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. KALENCHUK
DESIGNED KDE
DRAWN RDT/WAL/NSD
CHECKED KJB
APPROVED KJB
DATE JUNE 2, 1995

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY FOUNDATION PREPARATION AND BASIN LINER SECTION AND DETAILS

SCALE AS SHOWN | DRG. NO. 510-15-01-1625.202 | REV. 6

ORIGINAL SETTING OUT POINTS

Description	Point	Northing	Easting
Setting Out Line (S.O.L.)	S1	5 818 622.590	594 258.688
	S2	5 818 392.402	594 765.778
	S3	5 818 365.375	594 995.246
	S4	5 818 238.539	595 240.350
	S5	5 818 966.983	596 208.866
	S6	5 819 304.035	595 955.881
	S7	5 819 932.926	595 020.397
	S8	5 820 025.632	594 375.061
Stripping Limits	S13	5 818 233.372	595 392.851
	S14	5 818 696.416	595 997.943
	S15	5 818 828.350	596 066.684
Main Embkmnt. Seepage Collection Pond	S19	5 818 461.203	595 790.290
	S20	5 818 391.047	595 697.013
	S21	5 818 317.351	595 752.085
	S22	5 818 387.678	595 845.590
Reclaim Barge Channel	S23	5 818 743.870	595 479.103
	C5	5 818 856.841	595 365.834
	BC	5 818 879.675	595 408.055
	EC	5 818 903.862	595 375.481
	PI5	5 818 899.065	595 397.857
	S24	5 819 007.126	594 840.706
	C1	5 818 550.264	595 840.492
	BC	5 818 447.016	595 949.303
	EC	5 818 430.386	595 930.655
	PI1	5 818 437.922	595 940.674
	C2	5 818 243.100	595 432.097
	BC	5 818 123.222	595 522.260
	EC	5 818 112.295	595 505.514
	PI2	5 818 117.199	595 514.252
Bootjack – Moorehead Connector Relocation	C3	5 818 096.998	595 273.949
	BC	5 818 009.797	595 322.894
	EC	5 818 002.473	595 241.322
	PI3	5 817 987.827	595 283.752
	C4	5 818 228.844	594 248.367
	BC	5 818 333.078	594 283.514
	EC	5 818 307.478	594 171.448
	PI4	5 818 354.995	594 220.025

LEGEND

- C1 – Curve No. 1 (typ.)
- BC – Begin Curve
- EC – End Curve
- PI1 – Point of Intersection for Curve No. 1

NOTES

1. Stripping and clearing required 5m beyond seepage collection ponds and pipeworks.
2. As-built information provided by Mount Polley Mining Corporation.
3. Topography has not been updated for 1997 Flyover.
4. Pipeline alignments to be updated based on as-built survey.

Polley Lake
Polley Lake Pipeline
Creek
Bootjack
595 000 E
596 000 E
5 821 000 N
5 820 000 N
5 819 000 N
5 818 000 N
S.O.L.
Tailings Pipeline
Tailings and Reclaim Pipelines, see Note 4
Perimeter Embankment seepage collection pond
Perimeter Embankment Stage Ib crest El. 934
Stripping Limits
Original Borrow Area
Main Embankment Stage Ib crest El. 934
Alternate Borrow Area
Topsoil Stockpile
Future Borrow Area
Main Embankment seepage collection pond
Channel invert El. 918
Lower basin liner
Reclaim barge channel
Reclaim pipeline access road, see Section 3/1625.213
Bootjack-Morehead Connector Relocation
Wet or unsuitable material
Upper basin liner
Stage Ib stripping limits
Reclaim Pipeline
Channel invert El. 937
2/1625.211
1/1625.211
S1 S2 S3 S4 S5 S6 S7 S8 S13 S14 S15 S19 S20 S21 S22 S23 S24
Scale 100 50 0 100 200 300 400 500 m

CAD FILE\1625\017\D17 1:5000 Plot 1=5 MAY 25, 1997

1625.213	TSF – TAILINGS CONTROL AND SEEPAGE COLLECTION
1625.211	TSF – TAILINGS EMBANKMENT – SECTIONS AND DETAILS
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
6	MAY 30/97	AS-BUILT LINERS, EMBANKMENTS, PONDS AND BARGE CHANNEL	KJB
5	MAY 24/96	ISSUED FOR CONSTRUCTION	
4	APR 1/96	DIVERSION DITCH NOTE AND CULVERT	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
3	MAR 22/96	UPDATE ROAD & BORROW AREA ADDED	
2	JAN. 18/96	REVISED SEEPAGE COLLECTION POND	
1	JULY 27/95	POINT S16 AND S17 DELETED	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROVINCE OF BRITISH COLUMBIA PROFESSIONAL ENGINEER K. D. KLEMMER

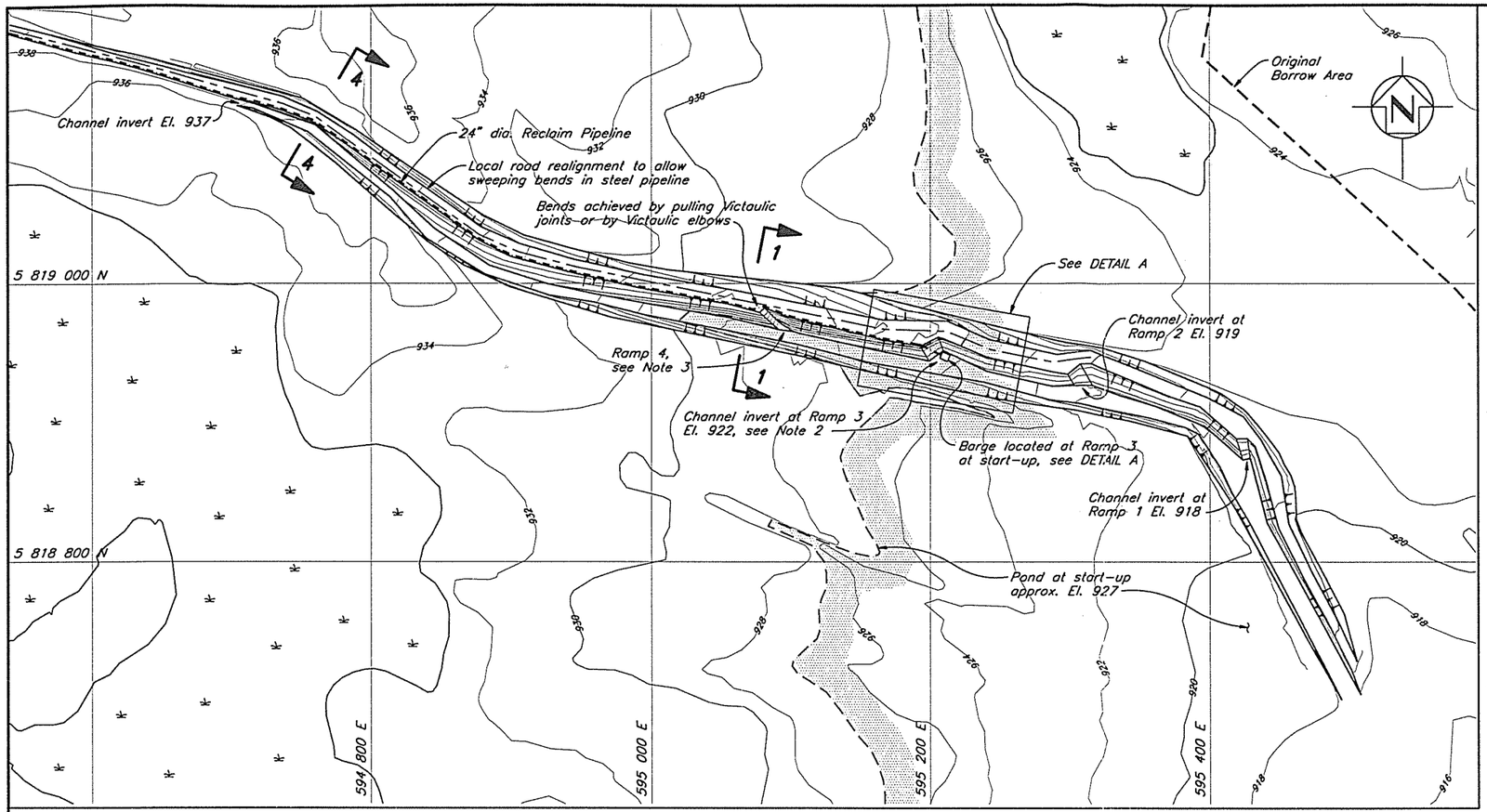
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY STAGE Ib TAILINGS IMPOUNDMENT GENERAL ARRANGEMENT

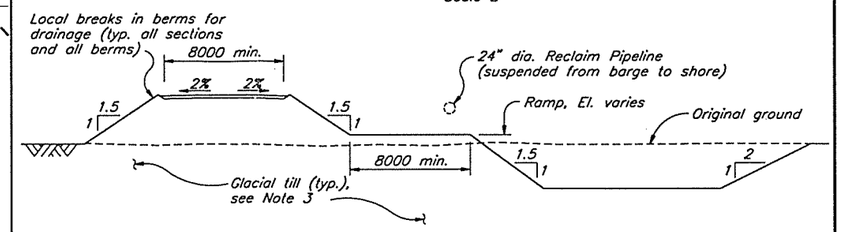
DESIGNED	KDE/KGB
DRAWN	WAL/VY/NSD
CHECKED	KJB
APPROVED	KJB

DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 510-12-02-1625.205 | REV. 6

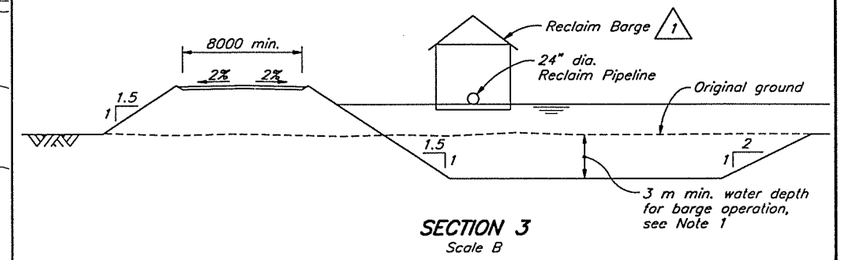


PLAN – RECLAIM BARGE CHANNEL (1)
Scale A

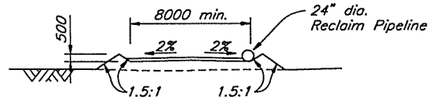
SECTION 1
Scale B



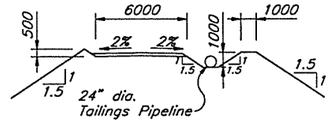
SECTION 2
Scale B



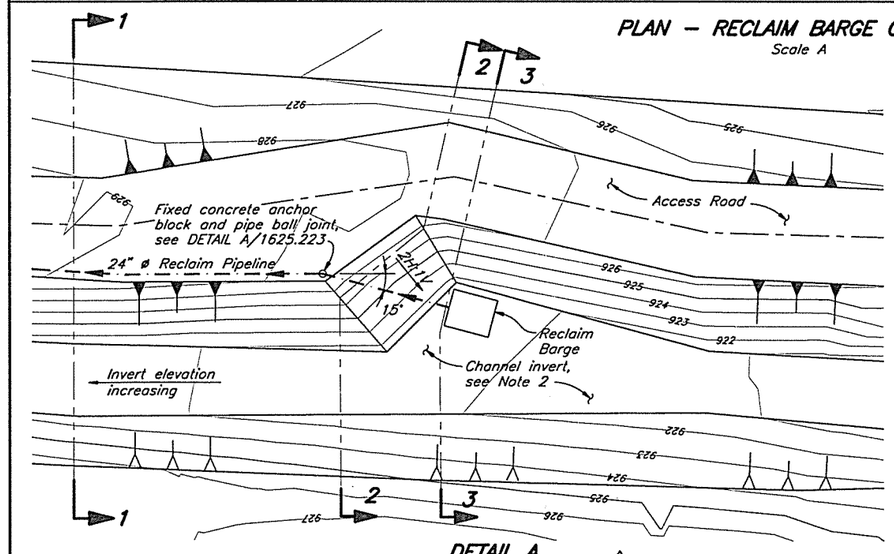
SECTION 3
Scale B



SECTION 4, 4/1625.218, 1/1625.222
Scale B



SECTION 5/1625.218, 2/1625.222
Scale B



DETAIL A
BARGE ACCESS RAMP (1)
Scale C

NOTES

1. Barge requires a minimum water depth of 3 m for operation and can operate over a 3 m range (see Drg. No. 1625.223).
2. Pond level at start-up approx. El. 927, with initial access road and ball joint at El. 928 and channel invert at El. 922 or lower.
3. Additional access ramps to be added as required at 3 m elevation increments. If the initial ramp is moved down channel from the assumed start-up location, additional reclaim pipe will be required.
4. Compacted glacial till placed along the barge channel excavation when higher permeability soils encountered (to meet basin liner requirements), as directed by the Engineer.
5. As-built information provided by Mount Polley Mining Corporation.
6. Topography has not been updated for 1997 Flyover.
7. Pipeline alignments to be updated based on as-built survey.

Scale C: 10 0 20 40 m

Scale B: 10 5 0 10 20 Metres

Scale A: 100 50 0 100 200 Metres

CAD FILE\1625/051/051 1:2000 Plot 1=2 MAY 28, 1997

DRG. NO.	DESCRIPTION
1625.223	TSF – RECLAIM PIPELINE DETAILS
1625.222	TSF – TAILINGS IMPOUNDMENT – TAILINGS & RECLAIM PIPEWORK – PLAN
1625.218	TSF – TAILINGS DISTRIBUTION & RECLAIM SYSTEM – PLAN

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	AS-BUILT RECLAIM BARGE CHANNEL	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER – PROVINCE OF BRITISH COLUMBIA – H. J. DEW

DESIGNED	HPD
DRAWN	NSD
CHECKED	KJE
APPROVED	KJB

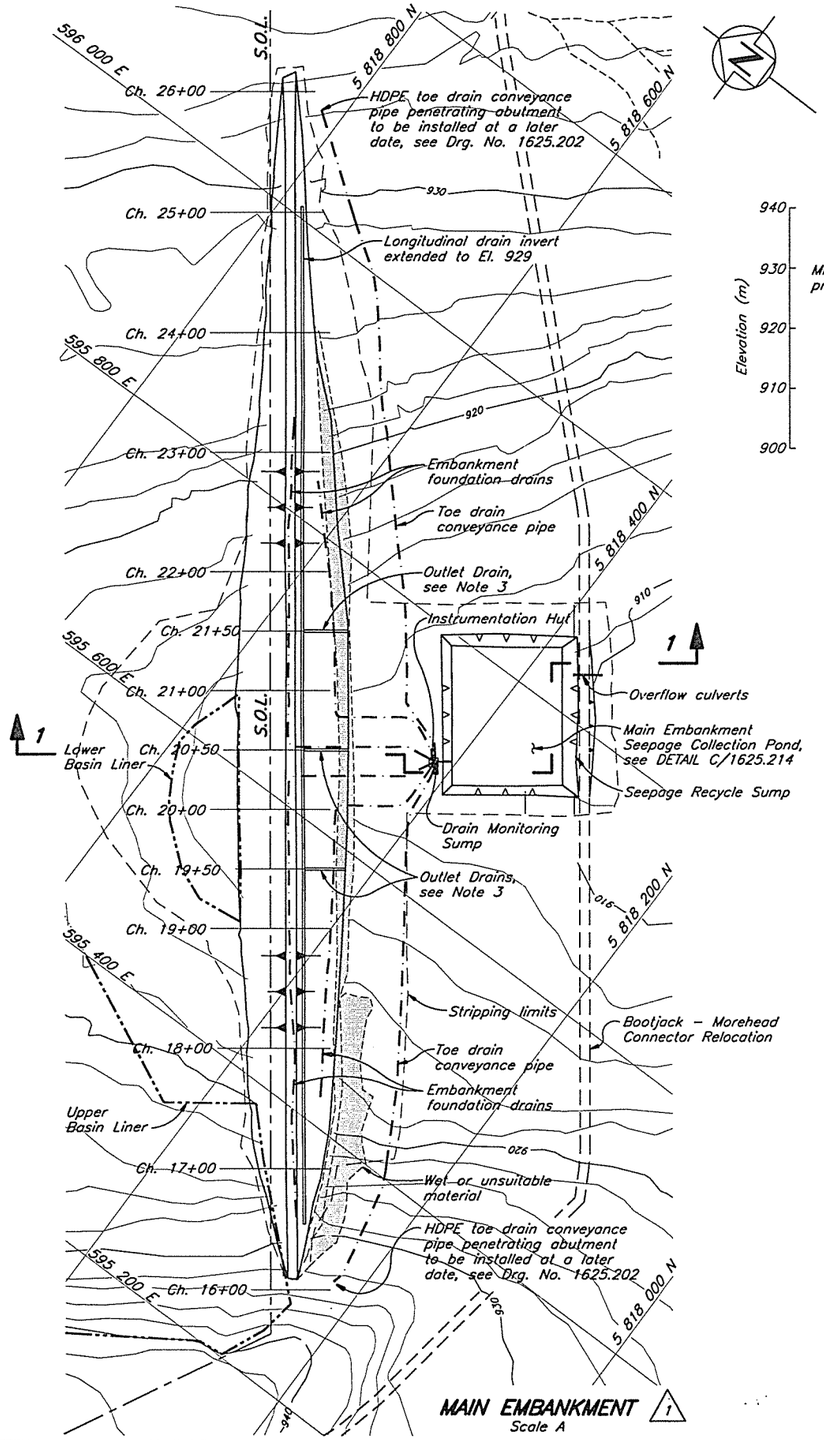
DATE JULY 15, 1996

MOUNT POLLEY MINING CORPORATION

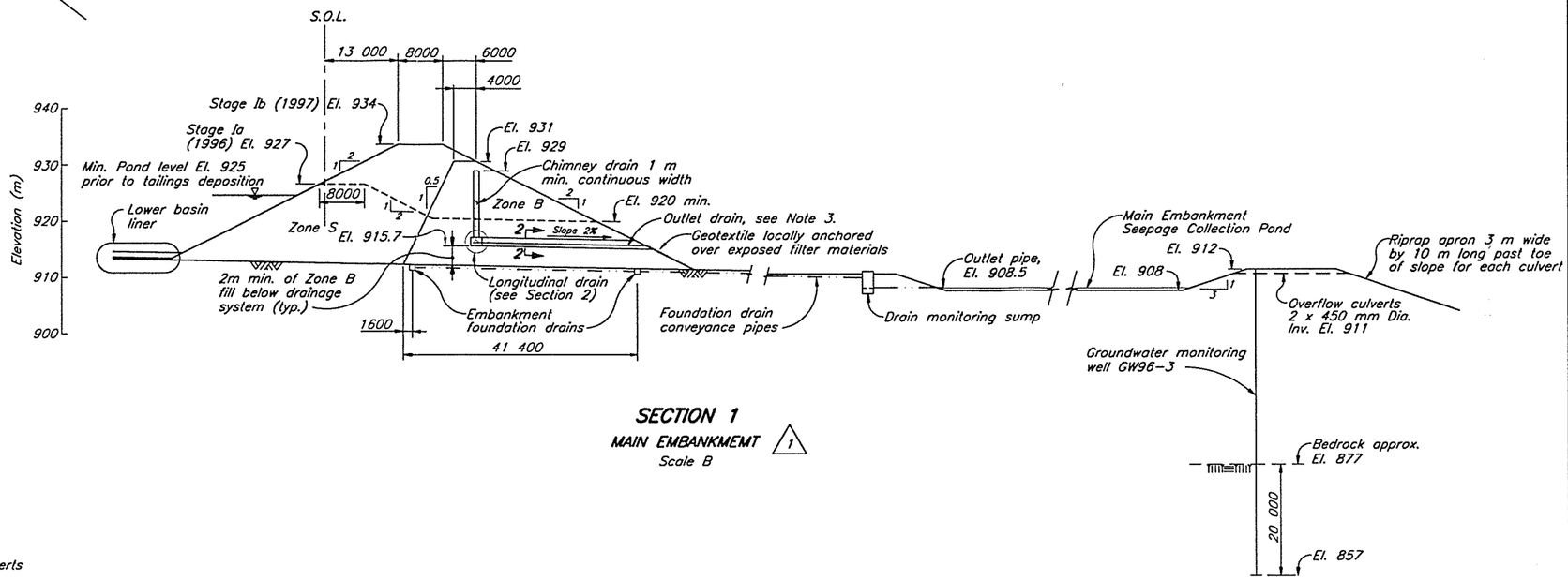
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY RECLAIM BARGE CHANNEL EXCAVATION DETAILS

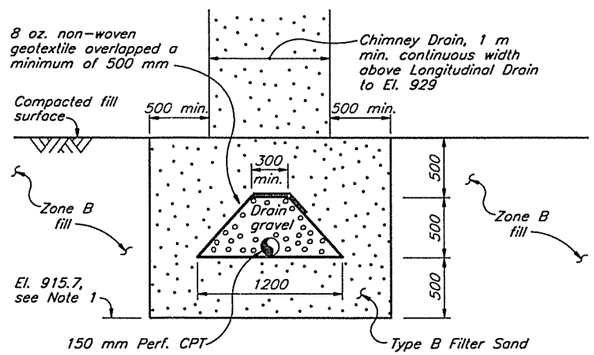
SCALE AS SHOWN | DRG. NO. 1625.206 | REV. 1



MAIN EMBANKMENT 1
Scale A



SECTION 1
MAIN EMBANKMEMT 1
Scale B



SECTION 2
LONGITUDINAL DRAIN/OUTLET DRAIN DETAIL 1
Scale C

1 NOTES

1. Longitudinal drain installed with invert El. 915.7 m approx. Ch. 18+50 to 23+00. On the right abutment, (Ch. 16+00 to 18+50) it was installed to invert El. 929 m in placed and compacted Zone B fill. On the left abutment (Ch. 23+00 to 25+25) it was installed in original ground, following the prepared ground surface.
2. HDPE toe drain conveyance pipe to be installed at later date. To be bedded with concrete as shown on Drg. No. 1625.202.
3. Outlet drains to be extended to Drain Monitoring Sumps during Stage II construction.
4. As-built information provided by Mount Polley Mining Corporation.
5. Topography has not been updated for 1997 Flyover.

C 500 0 500 1000 1500 2000 2500 mm
B 10 0 10 20 30 40 50 m
A 100 50 0 100 200 m

CAD FILE\ 1625\055\055_12500 Plot 1:2.5 MAY 28, 1997

DRG. NO.	DESCRIPTION
1625.214	TSF - SEDIMENT CONTROL & SEEPAGE COLLECTION - SECTIONS & DETAILS
1625.202	TSF - FOUNDATION PREPARATION & BASIN LINER

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	AS-BUILT EMBANKMENT AND POND	KJB
0	SEPT 4/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. J. BROUWER

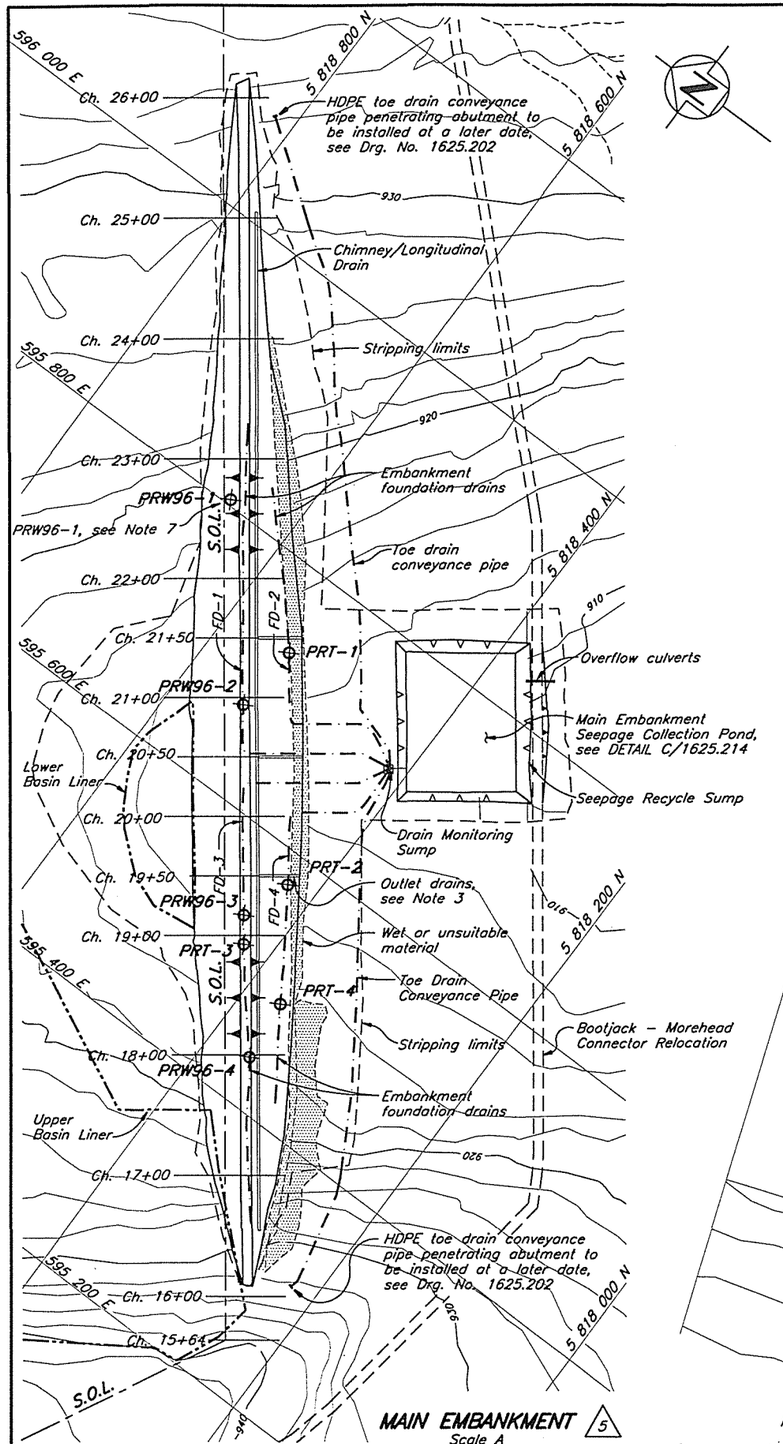
DESIGNED	KJB
DRAWN	WAL/DHS
CHECKED	KJB
APPROVED	KJB

MOUNT POLLEY MINING CORPORATION

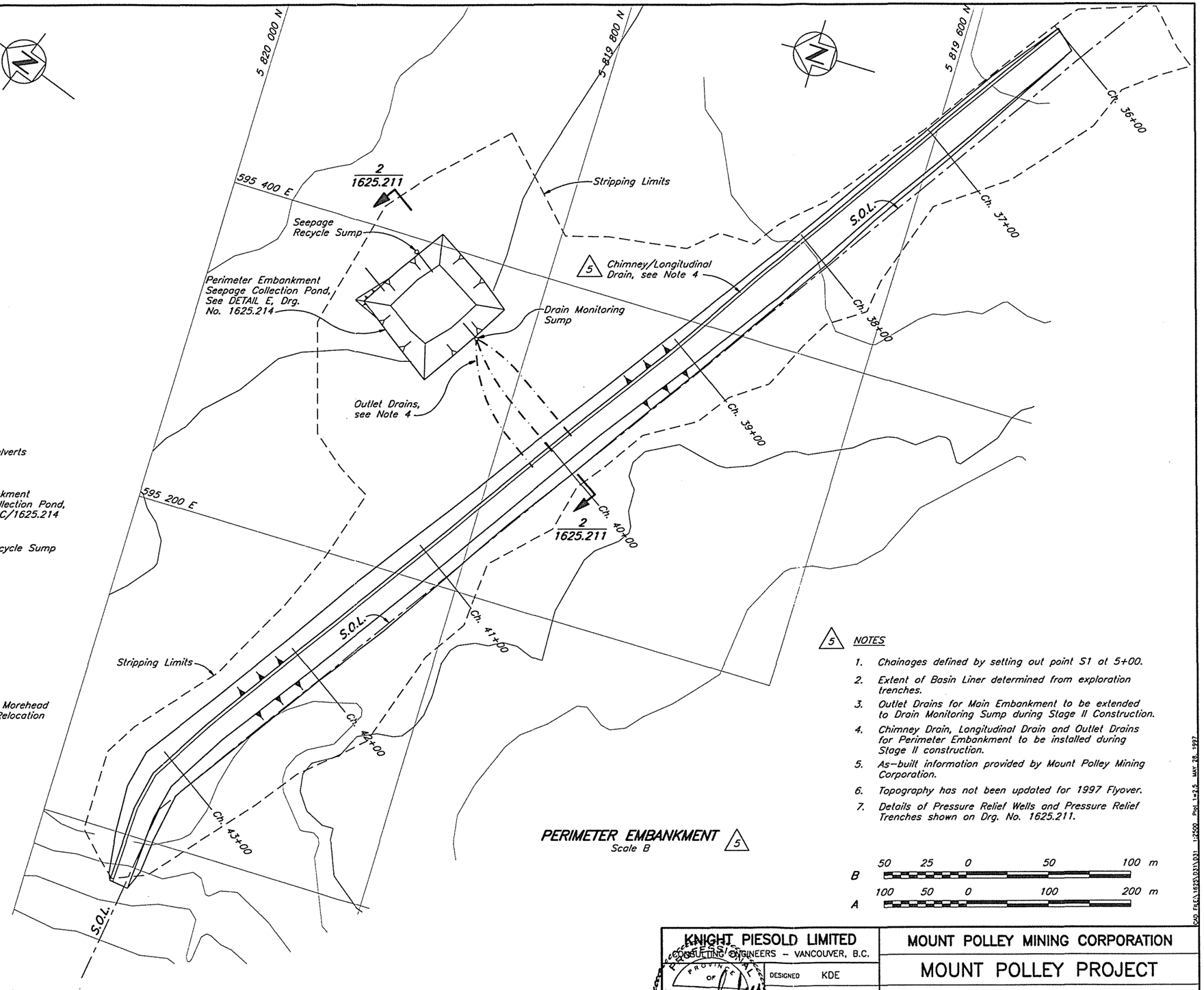
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
TAILINGS DAM CHIMNEY DRAIN

DATE SEPT. 4, 1996 | SCALE AS SHOWN | DRG. NO. 1625.207 | REV. 1



MAIN EMBANKMENT 5
Scale A



PERIMETER EMBANKMENT 5
Scale B

5 NOTES

1. Chainages defined by setting out point S1 at 5+00.
2. Extent of Basin Liner determined from exploration trenches.
3. Outlet Drains for Main Embankment to be extended to Drain Monitoring Sump during Stage II Construction.
4. Chimney Drain, Longitudinal Drain and Outlet Drains for Perimeter Embankment to be installed during Stage II construction.
5. As-built information provided by Mount Polley Mining Corporation.
6. Topography has not been updated for 1997 Flyover.
7. Details of Pressure Relief Wells and Pressure Relief Trenches shown on Drg. No. 1625.211.

B 50 25 0 50 100 m

A 100 50 0 100 200 m

CAD FILE\1625\021\031 1:2500 Plot 1=2.5 MAY 28, 1997

DRG. NO.	DESCRIPTION
1625.214	TSF - SEDIMENT CONTROL & SEEPAGE COLLECTION - SECTIONS & DETAILS
1625.202	TSF - FOUNDATION PREPARATION & BASIN LINER - SECTIONS & DEATILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
5	MAY 30/97	AS-BUILT EMBANKMENTS, PONDS AND LINERS	KJB
4	MAY 24/95	ISSUED FOR CONSTRUCTION	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
3	APR 1/96	OVERFLOW CULVERTS ADDED	
2	MAR 25/96	UPDATE ROADS AND DRAINS	
1	JULY 27/95	BASIN LINER AND DRAINAGE REVISED	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. EMBREE

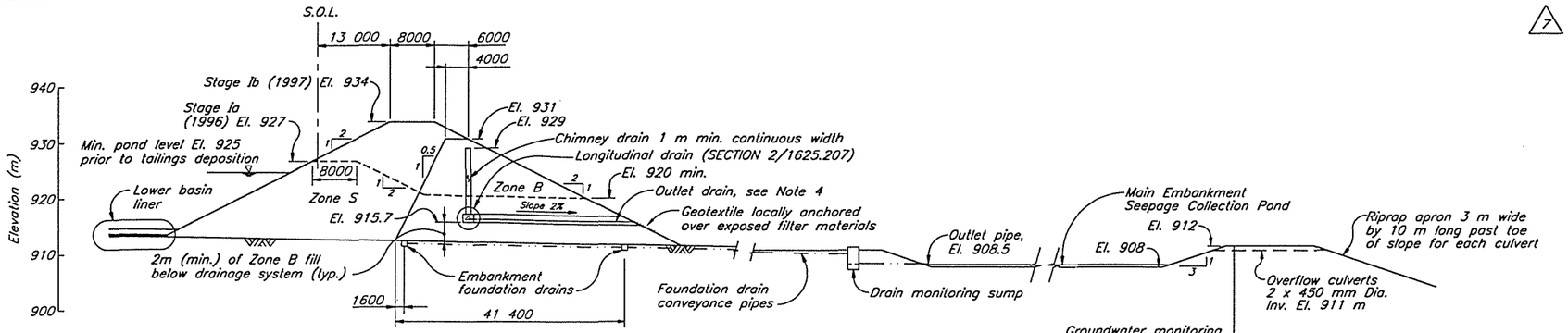
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
MAIN AND PERIMETER EMBANKMENTS
PLAN

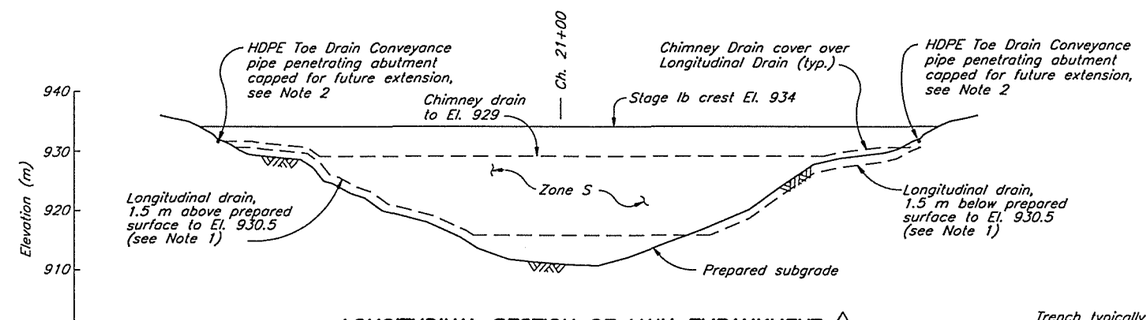
DESIGNED	KDE
DRAWN	RDT
CHECKED	KJB
APPROVED	KJB

DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 510-14-01-1625.210 | REV. 5



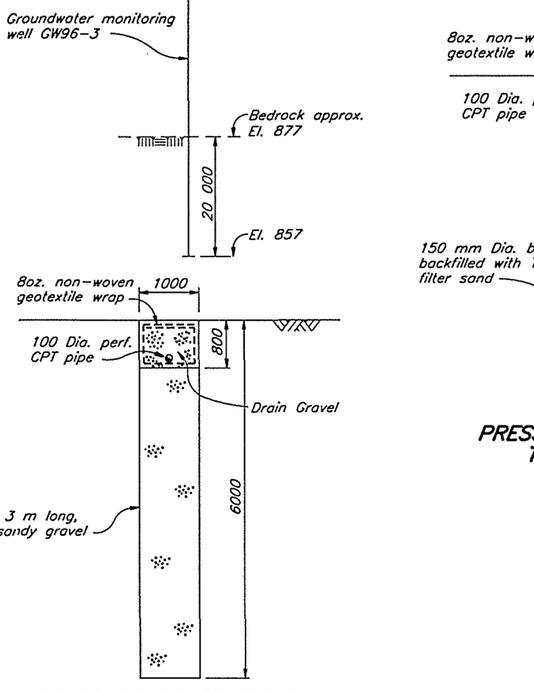
MAIN EMBANKMENT 7

Scale A



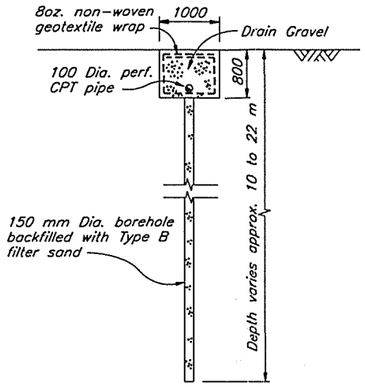
LONGITUDINAL SECTION OF MAIN EMBANKMENT (Looking Downstream) 7

N.T.S.



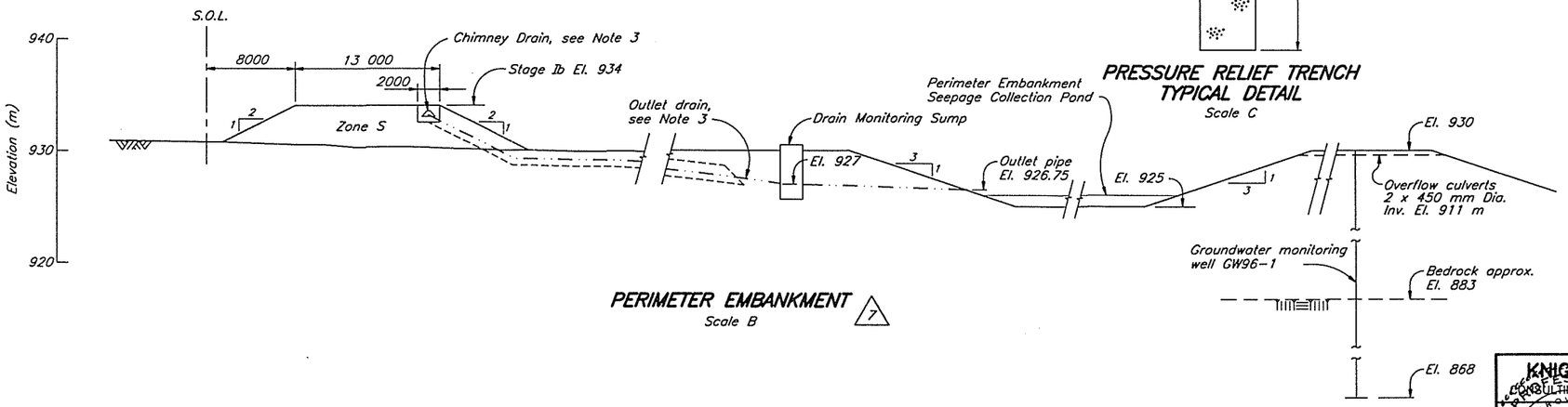
PRESSURE RELIEF TRENCH TYPICAL DETAIL

Scale C



PRESSURE RELIEF WELL TYPICAL DETAIL

Scale C



PERIMETER EMBANKMENT 7

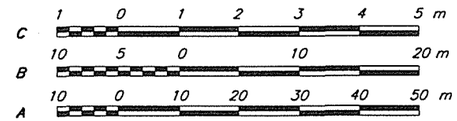
Scale B

ZONE	MATERIAL TYPE	PLACEMENT AND COMPACTION REQUIREMENTS
Blanket/Toe Drain	Filter sand	Placed and spread in maximum 1.0 m thick layers. Vibratory compaction as directed by the Engineer.
Foundation Drain	Drain Gravel	Placed and compacted as shown on the Drawings.
S	Glacial till	Placed, moisture conditioned and spread in maximum 300 mm thick layers (after compaction). Vibratory compaction to 98% of Standard Proctor maximum dry density or as approved by the Engineer.
B	Glacial till	Placed, moisture conditioned and spread in maximum 600 mm thick layers (after compaction). Vibratory compaction to 98% of Standard Proctor maximum dry density or as approved by the Engineer.
Chimney Drain	Type B Filter Sand	Placed and spread in maximum 600 mm thick layers. Compaction as directed by the Engineer.

7

NOTES

1. Longitudinal drain installed with invert El. 915.7 m approx. Ch. 18+50 to 23+00. On the right abutment, (Ch. 16+00 to 18+50) it was installed to invert El. 929 m in placed and compacted Zone B fill. On the left abutment (Ch. 23+00 to 25+25) it was installed in original ground, following the prepared ground surface.
2. HDPE toe drain conveyance pipes for Main Embankment to be installed at a later date. Details shown on Drg. No. 1625.202.
3. Chimney drain, longitudinal drain and Outlet drains for Perimeter Embankment to be installed during Staged II Construction.
4. Outlet drains to be extended to Drain Monitoring Sumps during Stage II construction.
5. Fill placement rates to be modified by the Engineer if excess pore pressures monitored in fill or foundation piezometers.
6. Groundwater monitoring wells to be installed by others.
7. As Built Information provided by Mount Polley Mining Corporation.



CAD FILE\1625\021\021 1:500 Plot 1=0.5 MAY 28, 1997

DRG. NO.	DESCRIPTION
1625.207	TSF – TAILINGS DAM CHIMNEY DRAIN
1625.202	TSF – FOUNDATION PREPARATION & BASIN LINER – SECTIONS & DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
7	MAY 30/97	AS-BUILT EMBANKMENTS AND PONDS	KJB
6	SEP 4/96	STAGE Ia ADDED, MODIFIED DRAINAGE DETAIL	
5	MAY 28/96	ISSUED FOR CONSTRUCTION	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
4	APR 19/96	EMBANKMENT EROSION PROTECTION	
3	APR 11/96	RE-ISSUED FOR TENDER	
2	APR 1/96	OVERFLOW CULVERTS ADDED	
1	MAR 22/96	UPDATE DRAINAGE	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. KLEMMER

DESIGNED KDE
DRAWN WAL/VY
CHECKED KJB
APPROVED KJB

MOUNT POLLEY MINING CORPORATION

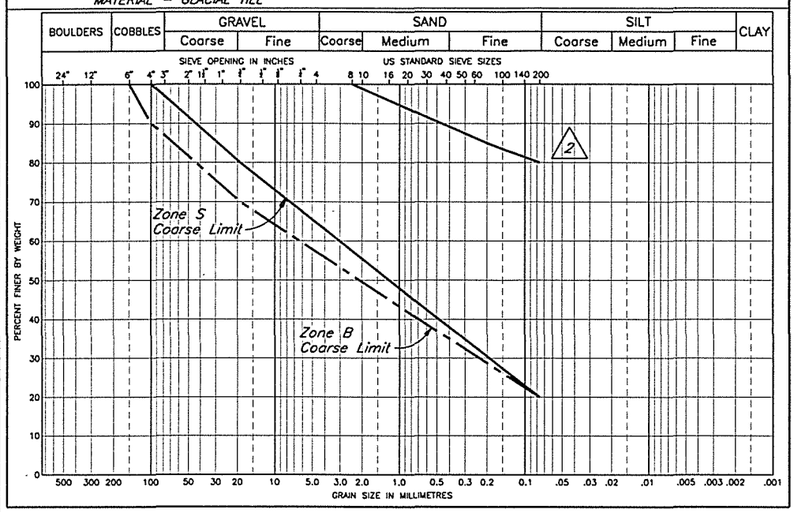
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
TAILINGS EMBANKMENT
SECTIONS AND DETAILS

DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 510-14-02-1625.211 | REV. 7

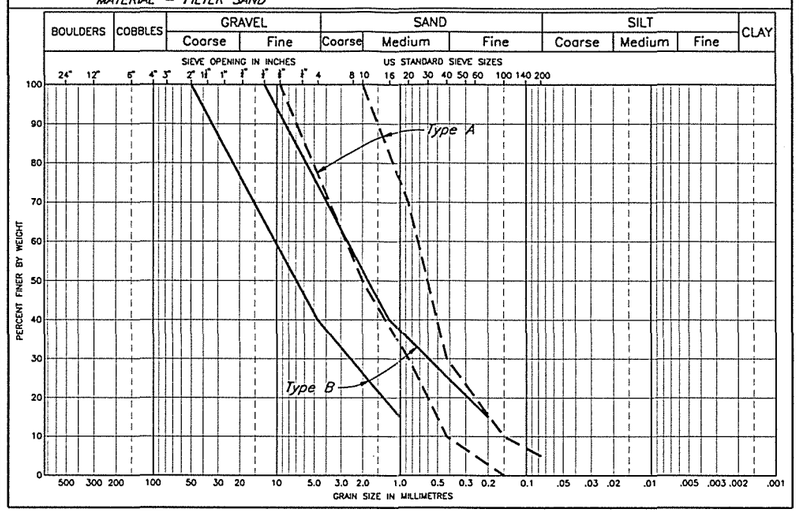
UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – S AND B*
MATERIAL – GLACIAL TILL



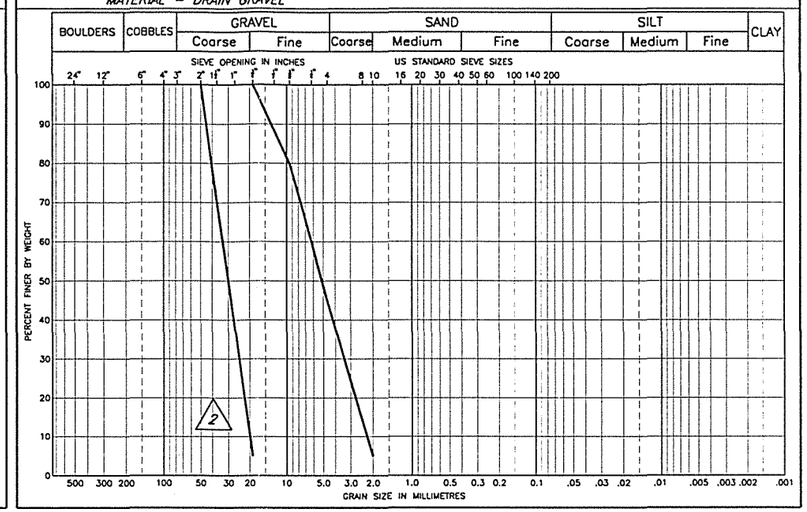
UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – DRAINS*
MATERIAL – FILTER SAND



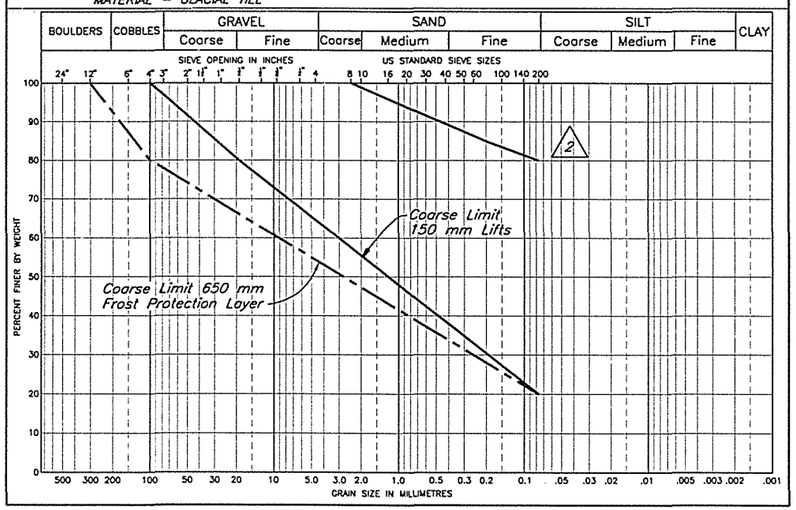
UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – PIPE SURROUND*
MATERIAL – DRAIN GRAVEL



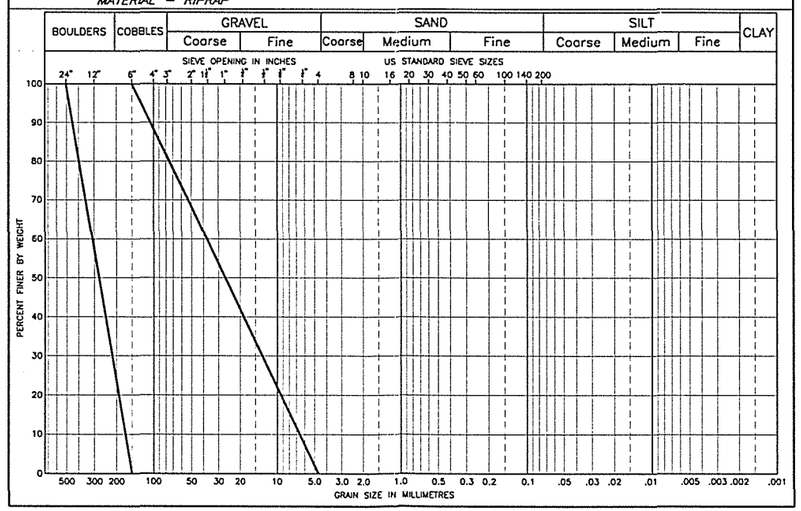
UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – BASIN LINER*
MATERIAL – GLACIAL TILL



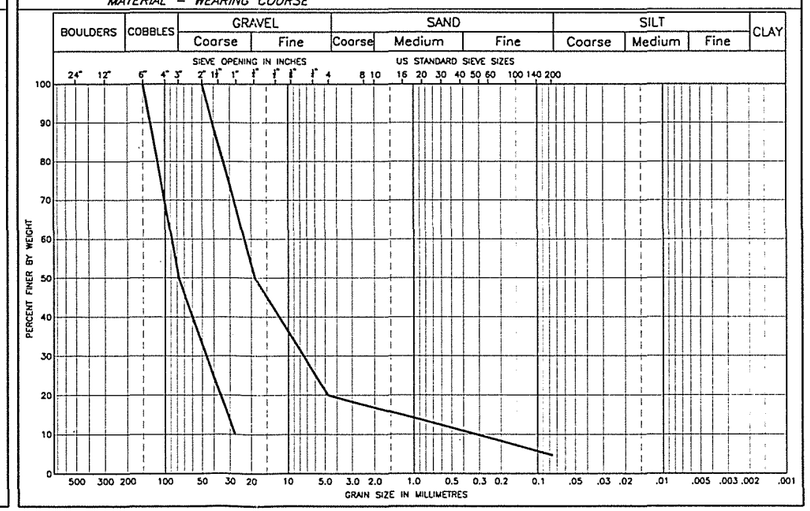
UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – DITCH EROSION PROTECTION*
MATERIAL – RIPRAP



UNIFIED SOIL CLASSIFICATION SYSTEM

PROJECT: *ZONE – ROAD SURFACING*
MATERIAL – WEARING COURSE



NOTES

1. *No more than 10% of Zone S material shall be coarser than the Zone S Coarse Limit and such material shall be finer than the Zone B coarse limit. Zone S material which has a gradation between the Zone S and B coarse limits shall be well spaced out and shall not form continuous layers or sizeable lenses.*

2. *For Filter sand, the portion passing the No. 40 sieve must have a plasticity index (PI) of zero.*

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
2	MAY 30/97	REVISED LIMITS	KJB
1	MAY 24/96	ISSUED FOR CONSTRUCTION	
0	JUNE 2/95	ISSUED FOR TENDER	
REVISIONS			

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. EMBREE

DESIGNED	KDE
DRAWN	RDT
CHECKED	KJB
APPROVED	KJB

DATE **JUNE 2, 1995**

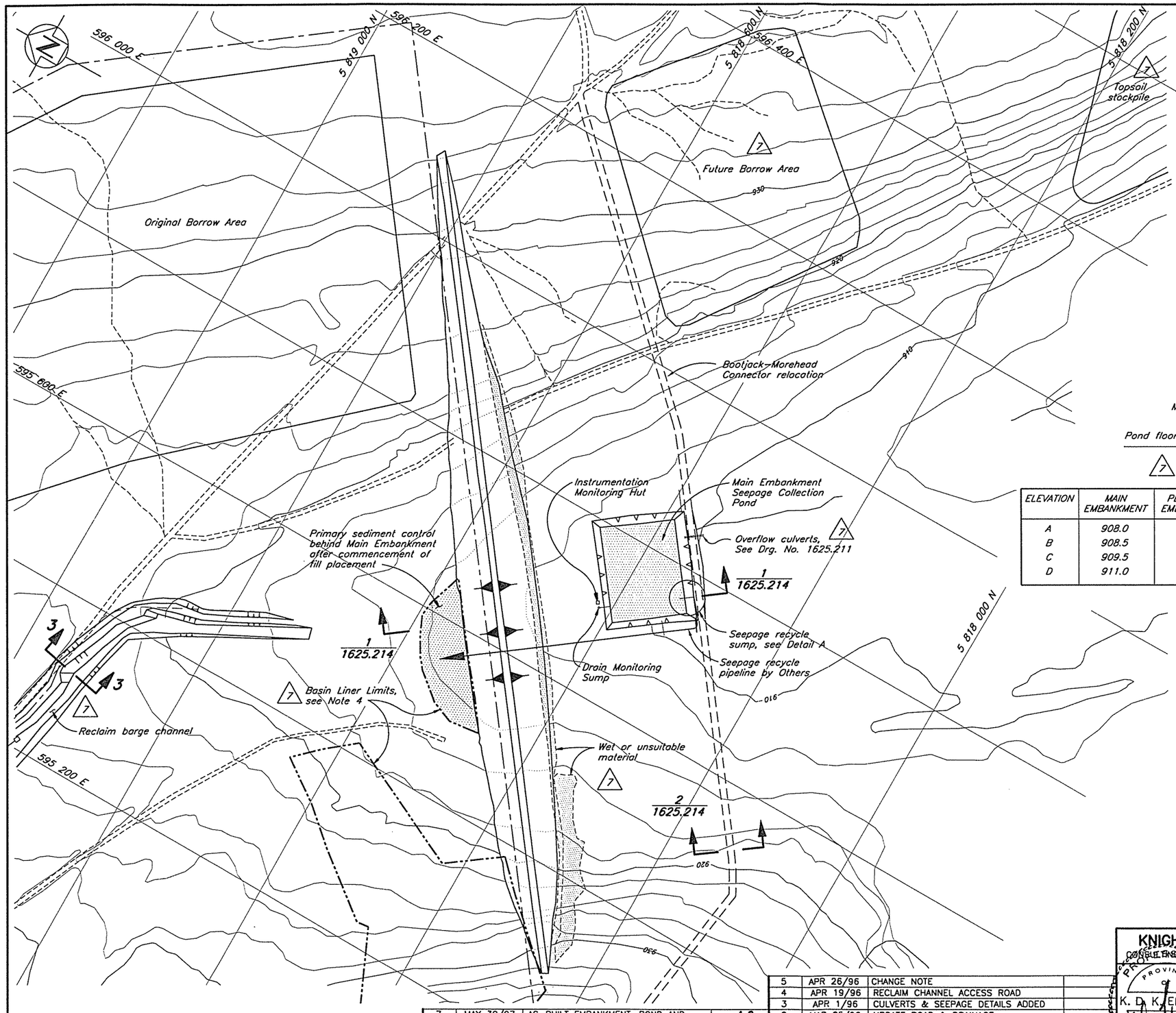
MOUNT POLLEY MINING CORPORATION

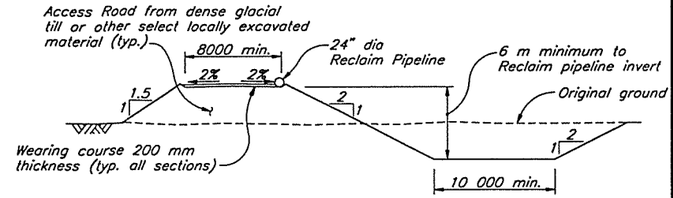
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY MATERIAL SPECIFICATIONS

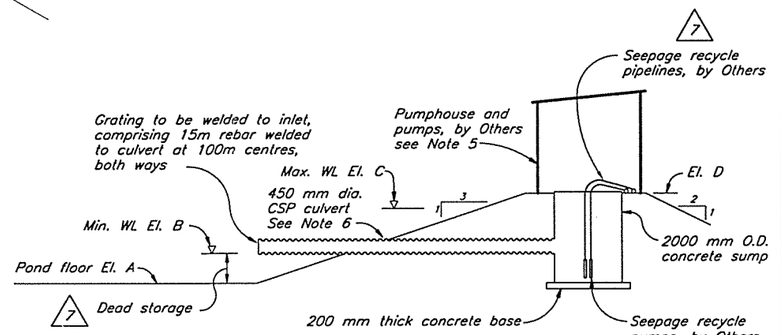
SCALE AS SHOWN | DRG. NO. 510-14-03-1625.212 | REV. 2

CAD FILE\1625\030\030 1:1000 Plot 1=1 MAY 28, 1997





7 **SECTION 3, SECTION 3 / 1625.218**
RECLAIM BARGE CHANNEL
Scale B



DETAIL A
SEEPAGE RECYCLE SYSTEM
NTS

ELEVATION	MAIN EMBANKMENT	PERIMETER EMBANKMENT
A	908.0	925.0
B	908.5	926.0
C	909.5	928.0
D	911.0	930.0

7

NOTE

1. Test pits indicate 4m thickness of till in proposed location of barge channel. Additional test pits will be required to confirm adequate thickness of till to finalize barge channel alignment.
7 2. Compacted glacial till shall be placed along the barge channel excavation if higher permeability sediments encountered (to meet basin liner requirements) as directed by the Engineer.
7 3. Seepage recycle pumps to be electric submersible pumps, discharging to pipelines extended up D/S face of tailings embankment. Pump sump to be fully enclosed with an insulated building c/w venting and I beam suitable for raising the pumps.
7 4. Extent of basin liner determined from exploration trenches.
5. Pumphouse by C.S.F.M. Engineering. Ltd. see Drg. No. 903
6. Penetration of concrete sump by CSP culvert to be water tight.
7. As built information provided by Mount Polley Mining Corporation.
8. Topography has not been updated for 1997 Flyover.

B 10 5 0 10 20 m
A 100 50 0 100 200 m

REFERENCE DRAWINGS	
1625.214	TSF – SEDIMENT CONTROL & SEEPAGE COLLECTION – SECTIONS & DETAILS
1625.211	TSF – TAILINGS EMBANKMENT – SECTIONS & DETAILS
DRG. NO.	DESCRIPTION

REVISIONS				
7	MAY 30/97	AS–BUILT EMBANKMENT, POND AND BARGE CHANNEL	KB
6	MAY 24/96	ISSUED FOR CONSTRUCTION	
REV.	DATE	DESCRIPTION	APPROVED

REVISIONS			
5	APR 26/96	CHANGE NOTE	
4	APR 19/96	RECLAIM CHANNEL ACCESS ROAD	
3	APR 1/96	CULVERTS & SEEPAGE DETAILS ADDED	
2	MAR 25/96	UPDATE ROAD & DRAINAGE	
1	JUL 27/95	BASIN LINER REVISED	
0	JUN 2/95	ISSUED FOR TENDER	
REV.	DATE	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. EMSLIE

DESIGNED	KDE
DRAWN	RDT/VY
CHECKED	KJB
APPROVED	KJB
DATE	JUNE 2, 1995

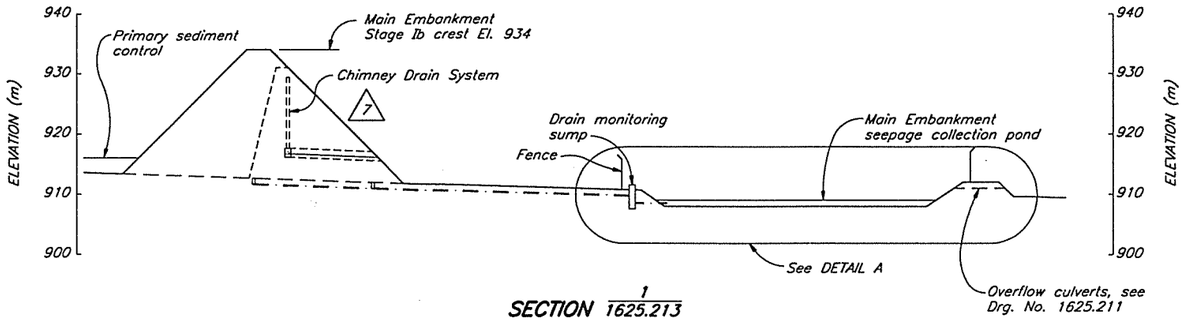
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

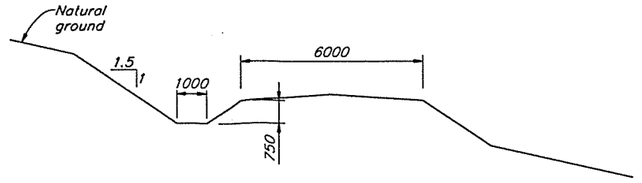
TAILINGS STORAGE FACILITY
SEDIMENT CONTROL AND
SEEPAGE COLLECTION

SCALE AS SHOWN | DRG. NO. 510–19–01–1625.213 | REV. 7

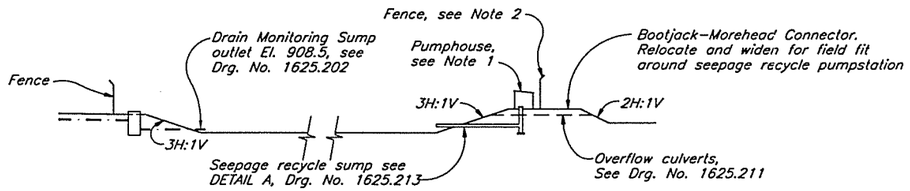
CAD FILE\1625\0213.022 1:2500 Plot 1-2-5 MAY 29, 1997



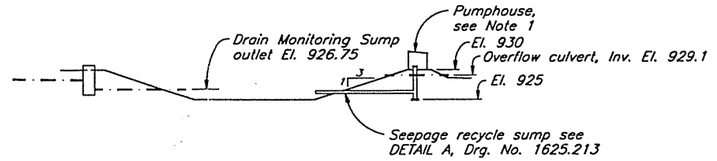
SECTION 1/1625.213
SEEPAGE PROFILE
Horiz. Scale C, Vert. Scale A



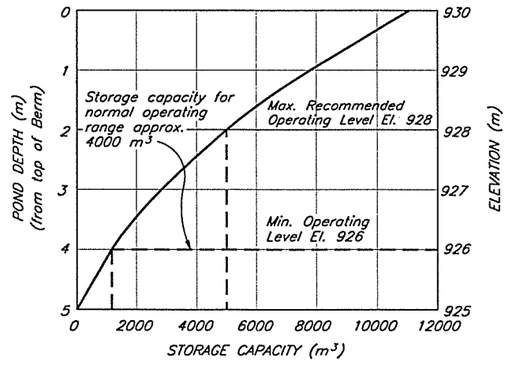
SECTION 2/1625.213
TYPICAL SECTION FOR BOOTJACK–MOREHEAD CONNECTOR RELOCATION
Scale B



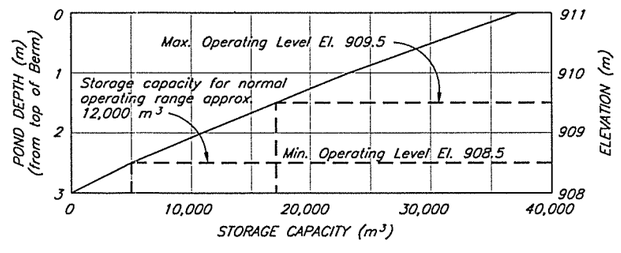
DETAIL A
MAIN EMBANKMENT SEEPAGE COLLECTION POND
Scale A



DETAIL E/1625.210
PERIMETER EMBANKMENT SEEPAGE COLLECTION POND
Scale A



PERIMETER EMBANKMENT SEEPAGE COLLECTION POND
DEPTH/CAPACITY RELATIONSHIP



MAIN EMBANKMENT SEEPAGE COLLECTION POND
DEPTH/CAPACITY RELATIONSHIP

NOTES

1. Pumphouse by C.S.F.M. Engineering Ltd. see Drg. No. 903
2. (7) Fence to be six feet high, chain link with 2 inch galvanized posts and two six foot wide access gates. Not yet installed (May 27, 1997)
3. (7) As–built information provided by Mount Polley Mining Coporation.

C 20 10 0 20 40 60 80 100 m
B 2 1 0 2 4 6 8 10 m
A 10 5 0 10 20 30 40 50 m

CAD FILE: \1625\023\023 1:500 Plot 1=0.5 MAY 29, 1997

DRG. NO.	DESCRIPTION
1625.213	TSF – SEDIMENT CONTROL AND SEEPAGE COLLECTION
1625.211	TSF – TAILINGS EMBANKMENT – SECTIONS AND DETAILS
1625.210	TSF – MAIN AND PERIMETER EMBANKMENTS – PLAN
1625.202	TSF – FOUNDATION PREPARATION & BASIN LINER – SECTIONS & DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
7	MAY 30/97	AS–BUILT PONDS	KJB
6	JUN 6/96	FENCE NOTE ADDED	
5	MAY 24/96	RE–ISSUED FOR CONSTRUCTION	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
4	APR 1/96	OVERFLOW CULVERTS ADDED	
3	MAR 22/96	UPDATE DRAINAGE AND ROAD	
2	SEPT. 5/95	ISSUED FOR CONSTRUCTION	
1	JULY 27/95	RIPRAP APRON ADDED	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

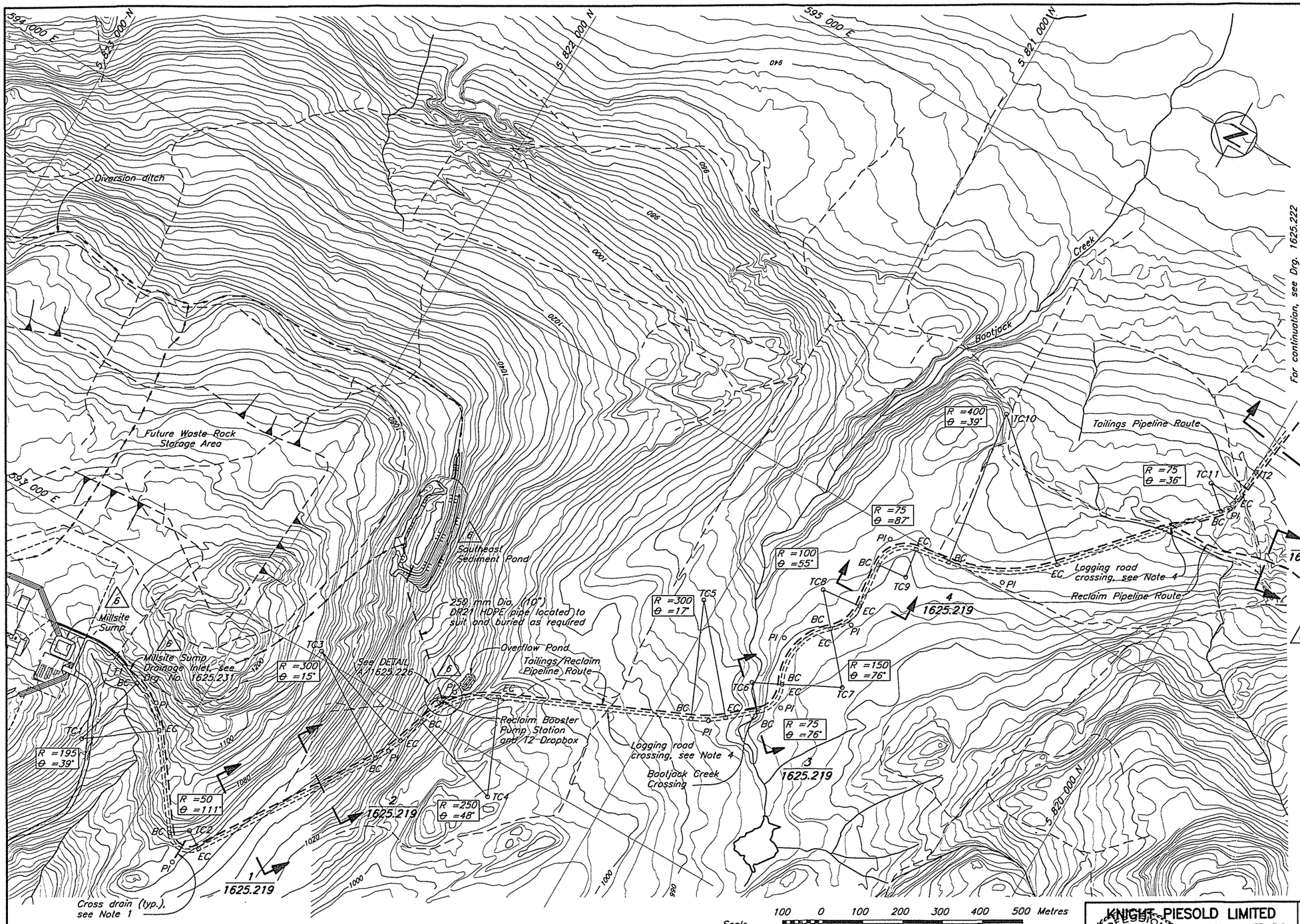
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K.D. KVENNEFELT

DESIGNED	KDE
DRAWN	VY/NSD
CHECKED	KJB
APPROVED	KJB
DATE	JUNE 2, 1995
SCALE	AS SHOWN
DRG. NO.	510–19–02–1625.214
REV.	7

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY SEDIMENT CONTROL AND SEEPAGE COLLECTION – SECTIONS AND DETAILS



Scale 100 0 100 200 300 400 500 Metres

SETTING OUT POINTS (Note 8)		
Point	Northing	Easting
T1	Field locate	Field locate
TC1	5 822 212.426	592 528.348
BC	5 822 161.106	592 716.473
EC	5 822 054.012	592 642.057
PI	5 822 094.357	592 698.264
TC2	5 821 864.147	592 463.292
BC	5 821 904.766	592 434.135
EC	5 821 822.231	592 436.033
PI	5 821 862.111	592 374.711
TC3	5 821 802.714	593 016.314
BC	5 821 551.219	592 852.758
EC	5 821 517.947	592 921.933
PI	5 821 530.122	592 885.200
TC4	5 821 258.152	592 911.135
BC	5 821 495.458	592 989.786
EC	5 821 357.902	593 140.373
PI	5 821 460.320	593 095.808
TC5	5 821 034.980	593 608.059
BC	5 820 915.281	593 332.973
EC	5 820 841.176	593 379.061
PI	5 820 874.841	593 350.570
TC6	5 820 828.199	593 488.298
BC	5 820 779.748	593 431.048
EC	5 820 761.122	593 521.849
PI	5 820 734.752	593 469.130
TC7	5 820 626.968	593 588.951
BC	5 820 761.122	593 521.849
EC	5 820 724.705	593 702.739
PI	5 820 813.467	593 626.498
TC8	5 820 789.863	593 778.597
BC	5 820 724.705	593 702.739
EC	5 820 690.352	593 788.480
PI	5 820 685.206	593 736.666
TC9	5 820 626.991	593 909.389
BC	5 820 701.624	593 901.976
EC	5 820 638.300	593 983.531
PI	5 820 708.658	593 972.800
TC10	5 820 612.021	594 392.165
BC	5 820 551.708	593 996.739
EC	5 820 314.310	594 125.018
PI	5 820 410.028	594 018.349
TC11	5 820 083.239	594 494.822
BC	5 820 027.418	594 444.732
EC	5 820 008.600	594 467.469
PI	5 820 011.009	594 463.018

6 NOTES

1. Final location of cross drain culverts to be determined in the field.
2. Final location of Bootjack Creek crossing to be determined in the field.
3. Setting out points for roadway are to be adjusted in the field to achieve a cut/fill balance to the greatest extent possible and to avoid oversteep grades or low spots in pipeline.
4. Pipelines under logging roads to be sleeved in 900mm ø x 2 mm minimum wall CSP culverts with 500 mm minmum depth of cover. Backfill to be well graded and compacted sand and gravel.
5. Profiles and quantities on Drg. No. 1625.228.
6. Millsite sump drainage inlet to be installed before start-up.
7. As-built information provided by Mount Polley Mining Corporation.
8. Topography not updated for 1997 Flyover.
9. Pipeline alignment to be updated based on as-built survey.

CAD FILE\ 1625\020\026 1:5000 Plot 1=5 MAY 29, 1997

REFERENCE DRAWINGS	
DRG. NO.	DESCRIPTION
1625.231	DRAINAGE PLAN – MILL SITE
1625.228	TSF – TAILINGS DISTRIBUTION AND RECLAIM SYSTEM – PROFILES
1625.226	TSF – RECLAIM BOOSTER PUMP STATION AREA – GENERAL ARRANGEMENT
1625.222	TSF – TAILINGS IMPOUNDMENT – TAILINGS AND RECLAIM PIPEWORK PLAN
1625.219	TSF – TAILINGS DISTRIBUTION & RECLAIM SYSTEM – SECTIONS & DETAILS
1625.206	TSF – RECLAIM BARGE CHANNEL – EXCAVATION DETAILS

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED
6	MAY 30/97	AS-BUILT SOUTHEAST SEDIMENT POND	KJB

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED
5	JULY 15/96	PIPELINES RELOCATED, SEE NOTE 5	
4	MAY 24/96	ISSUED FOR CONSTRUCTION	
3	APR 19/95	NOTE ADDED	
2	APR 1/96	MILLSITE AND CONTROL POND REVISED	
1	MAR 25/96	RE-ISSUED FOR TENDER	
0	JUNE 2/95	ISSUED FOR TENDER	

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. B. K. EMBREE

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

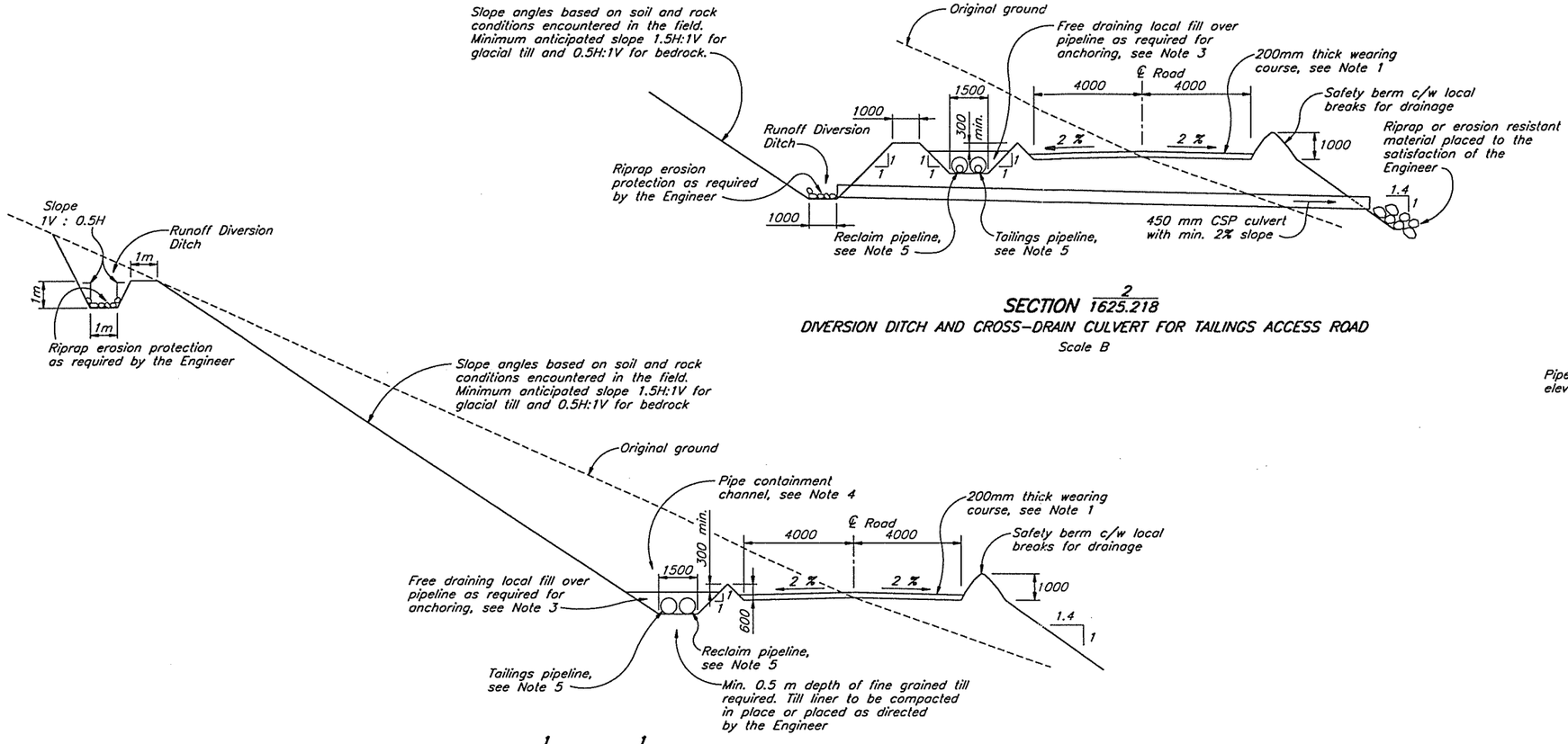
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
TAILINGS DISTRIBUTION AND
RECLAIM SYSTEM – PLAN

DESIGNED	MBS
DRAWN	VY/RDT/NSD
CHECKED	KJB
APPROVED	KJB

DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 1625.218 | REV. 6

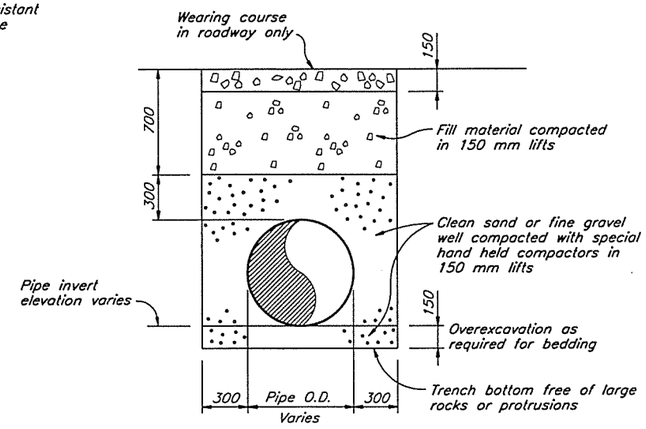


SECTION 2/1625.218
DIVERSION DITCH AND CROSS-DRAIN CULVERT FOR TAILINGS ACCESS ROAD
Scale B

SECTION 1/1625.218 , 1/1625.226
TAILINGS ACCESS ROAD WITH DIVERSION DITCH
Scale B

SECTION 4/1625.218 , 2/1625.226
TAILINGS ACCESS ROAD WITH DIVERSION DITCH ON FLAT GROUND
Scale B

SECTION 3/1625.218
TAILINGS ACCESS ROAD
BOOTJACK CREEK CROSSING
Scale A



TYPICAL DETAIL FOR BURIED HDPE PIPE
NTS

NOTES

1. Wearing course required for Tailings Access Road, Reclaim Barge Access Road and Bootjack-Morehead connector relocation only.
2. For crossing under road, tailings and reclaim pipelines to be installed in individual 900 mm (min.) dia. culverts laid under road with 500 mm min. cover. Culverts laid immediately downslope of cross-drain.
3. Spacing of fill for anchoring to be determined in the field by the Engineer. Anchor posts or concrete anchor blocks can be substituted for local fill.
4. Trench width may vary locally to accomodate additionol pipelines or structures in the trench.
5. Tailings and reclaim pipelines crossed over immediately up-gradient of T2 Dropbox and where the pipelines split at the Tailings Storage Facility.
6. Runoff Diversion Ditches may require periodic cleaning.
7. Tailings access road design was modified by Mount Polley Mining Corporation. Road cross-section may vary from that shown.

B: 2 1 0 2 4 6 8 10 m
A: 10 5 0 10 20 m

CAD FILE\1625\027\027 1:200 Plot 1=0.2 MAY 28, 1997

DRG. NO.	DESCRIPTION
1625.226	TSF - RECLAIM BOOSTER PUMP STATION AREA - GENERAL ARRANGEMENT
1625.218	TSF - TAILINGS DISTRIBUTION & RECLAIM SYSTEM - PLAN

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
7	MAY 30/97	NOTES UPDATED	KJB
6	APR. 29/97	TAILINGS ACCESS ROAD WAS NOT BUILT TO THIS DESIGN	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
5	JULY 15/96	PIPELINES RELOCATED	
4	MAY 28/96	ISSUED FOR CONSTRUCTION	
3	APR 26/96	REVISE DRAINAGE DITCHES	
2	APR 19/96	SECTIONS REVISED	
1	MAR 22/96	RE-ISSUED FOR TENDER	
0	JUNE 2/95	ISSUED FOR TENDER	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

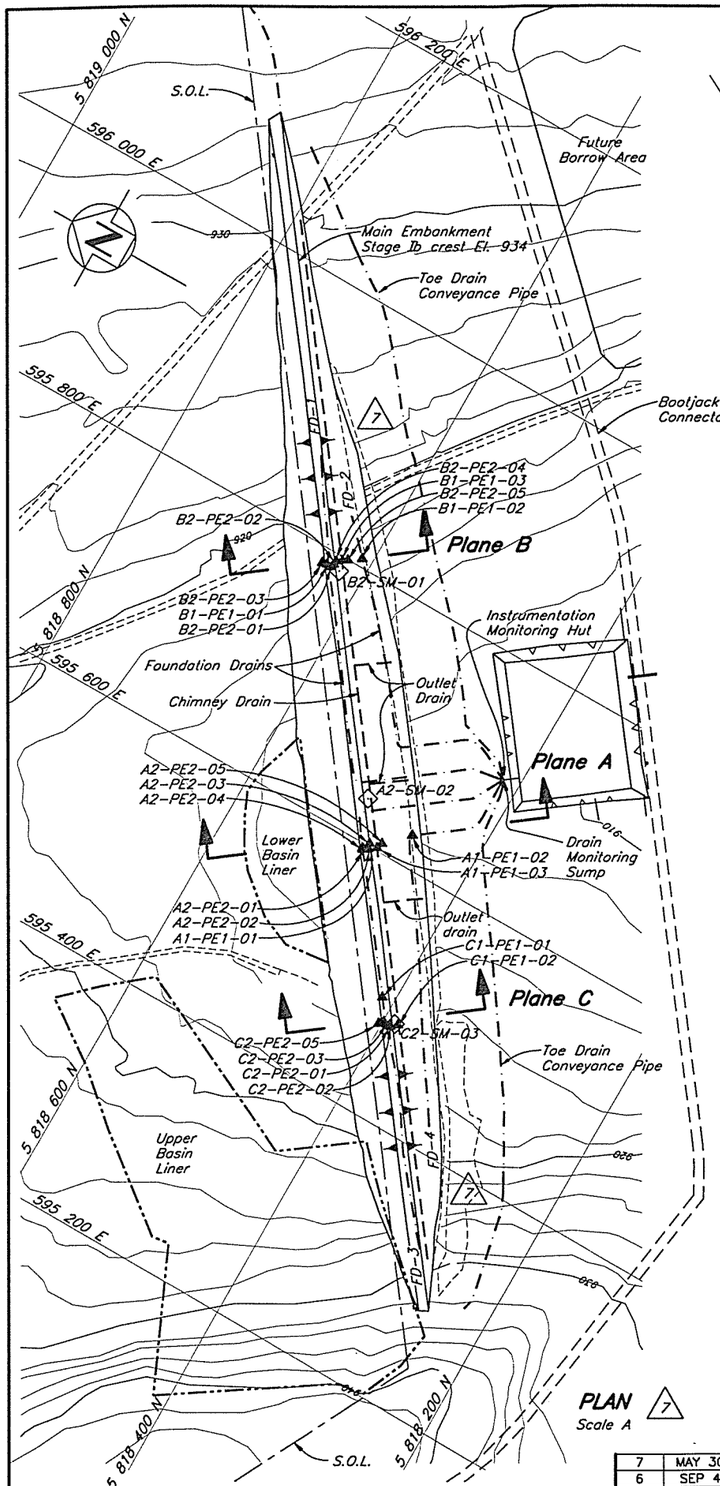
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. TIMBRELL

DESIGNED	MBS/HPD
DRAWN	VY
CHECKED	KJB
APPROVED	KJB
DATE	JUNE 2, 1995
SCALE	AS SHOWN
DRG. NO.	510-61-02-1625.219
REV.	7

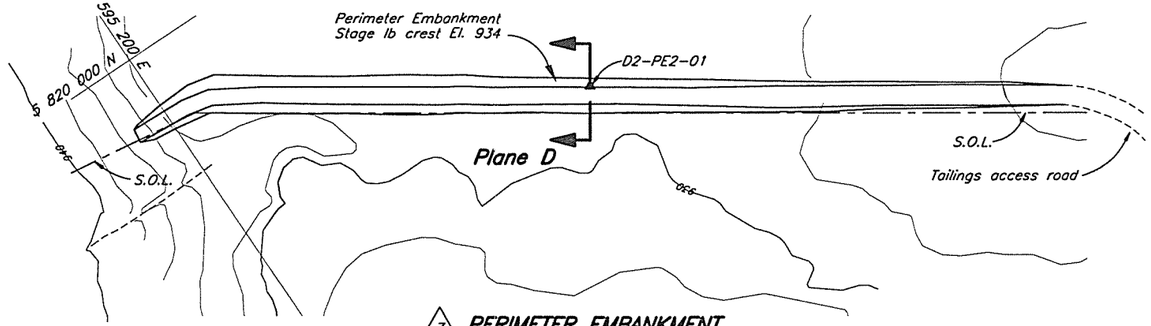
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

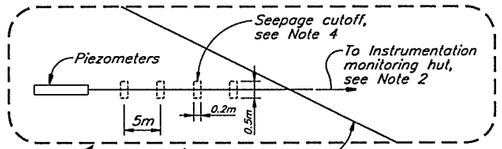
TAILINGS STORAGE FACILITY
TAILINGS DISTRIBUTION AND
RECLAIM SYSTEM - SECTIONS AND DETAILS



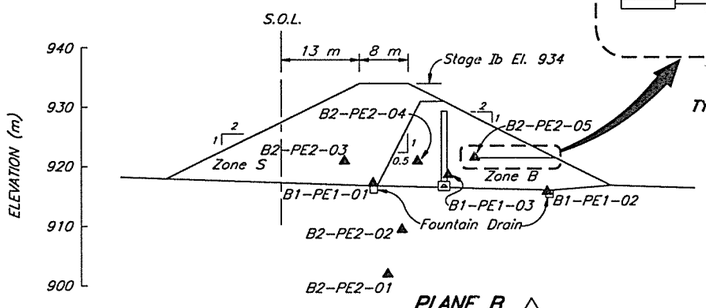
PLAN
Scale A



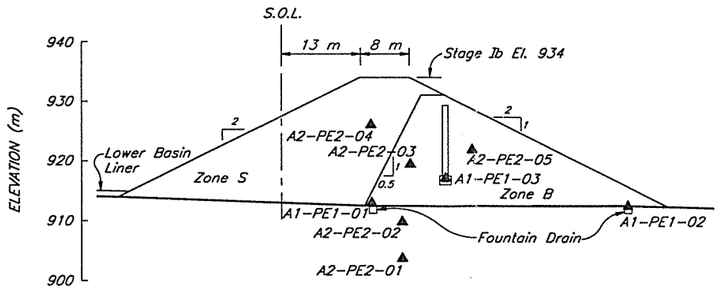
PERIMETER EMBANKMENT
Scale A



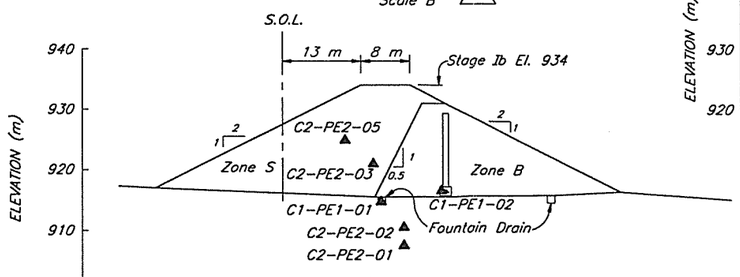
TYPICAL DETAIL OF SEEPAGE CUTOFF FOR PIEZOMETER LEADS
NTS



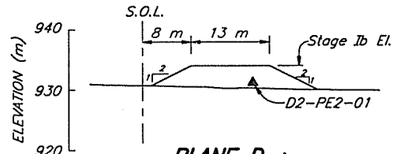
PLANE B
Scale B



PLANE A
Scale B



PLANE C
Scale B



PLANE D
Scale B

SUMMARY OF PIEZOMETERS LEAD LENGTHS

PIEZOMETER No.	LEAD LENGTH (m)	NORTHING	EASTING	ELEV.
A1–PE1–03	200	5 818 476.8220	595 602.380	917.17
A1–PE1–01	175	5 818 486.650	595 595.060	912.99
A1–PE1–02	150	5 818 456.420	595 626.250	912.14
A2–PE2–01	200	5 818 482.710	595 598.140	903.7
A2–PE2–02	200	5 818 482.710	595 598.140	909.8
A2–PE2–03	175	5 818 484.196	595 598.140	919.43
A2–PE2–04	200	5 818 487.510	595 595.995	926.07
A2–PE2–05	175	5 818 475.061	595 607.560	921.87
B1–PE1–03	305	5 818 622.780	595 797.260	918.69
B1–PE1–01	300	5 818 632.550	595 787.910	917.27
B1–PE1–02	275	5 818 609.040	595 806.770	915.95
B2–PE2–01	325	5 818 628.270	595 787.880	902.00
B2–PE2–02	325	5 818 627.470	595 790.660	909.50
B2–PE2–03	325	5 818 636.530	595 786.970	921.00
B2–PE2–04	330	5 818 626.940	595 794.190	921.00
B2–PE2–05	325	5 818 619.014	595 799.804	921.70
C1–PE1–01	325	5 818 410.500	595 496.070	914.70
C1–PE1–02	330	5 818 410.500	595 496.070	916.60
C2–PE2–01	350	5 818 392.410	595 478.240	907.50
C2–PE2–02	350	5 818 392.410	595 478.240	910.50
C2–PE2–03	325	5 818 399.106	595 478.824	920.97
C2–PE2–05	325	5 818 402.343	595 475.326	924.84
D1–PE1–01 *	90	–	–	–
D2–PE2–01	85	5 818 768.104	595 506.055	931.00

* D1–PE1–01 to be installed during Stage II construction.

NOTES

1. Piezometers are vibrating type, RST model VW–2100 with a pressure rating of 100 psi or equivalent, connected to a readout panel via standard non–vented model VW–232 direct burial cable.
2. Piezometer leads are to be extended to Instrumentation Monitoring Hut after foundation preparation for final embankment during Stage II construction.
3. Future survey monuments not shown. A minimum of 2 monuments will be installed for each embankment raise.
4. Seepage cutoffs placed at 5m intervals with 10% bentonite added to fine grained till backfill, see Drg. No. 1625.221.
5. As–built information provided by Mount Polley Mining Corporation.
6. Topography has not been updated for 1997 flyover.
7. Installation details for borehole piezometers as shown on Drg. No. 1625.221.

LEGEND

AO–PE1–01 — Plane I.D. (A, B etc.); Area (0–Tailings, 1–Drain, 2–Embankment); Number I.D.; Pressure Rating (1–Low, 2–High); Type of Instrumentation (PE–Piezometer electric, SM–Survey Monument)

A1–PE1–01 ▲ Embankment drain piezometer (Foundation drain and Chimney drain)

A2–PE2–01 ▲ Embankment foundation and fill piezometer

A2–SM–01 ◇ Embankment survey monument

B 10 0 10 20 30 40 50 m

A 100 50 0 100 200 m

CAD FILE\1625\02\A\D28 1:2500 Plot 1=2.5 June 2, 1997

REFERENCE DRAWINGS	
1625.221	TSF – INSTRUMENTATION – SECTIONS AND DETAILS
DRG. NO.	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
7	MAY 30/97	AS–BUILT PIEZOMETER LOCATIONS	KJB
6	SEP 4/96	REVISED PIEZO. LOCATIONS	
5	MAY 24/96	ISSUED FOR CONSTRUCTION	
4	APR 1/96	PIEZOMETER INFORMATION ADDED	
3	MAR 25/96	ROAD UPDATED	
2	JAN 18/96	REVISED SEEPAGE COLLECTION POND	
1	JUL 27/95	BASIN GROUNDWATER DRAINS REVISED	
0	JUN 2/95	ISSUED FOR TENDER	

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — K. D. K. EMBREE

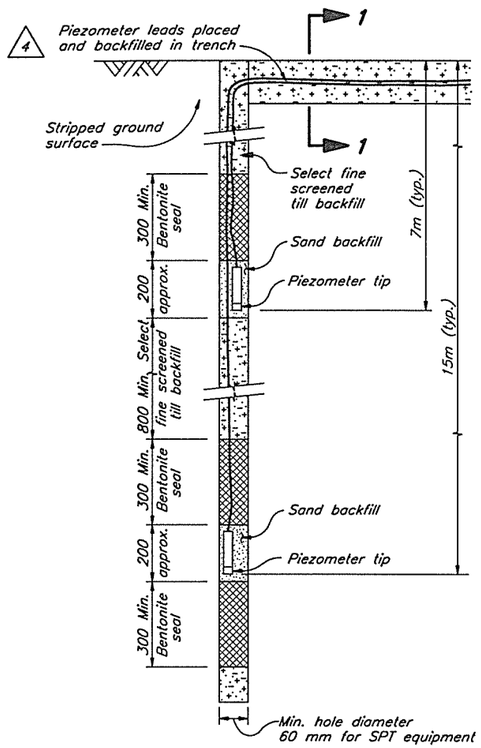
DESIGNED	GRG
DRAWN	RDT/VY/DHS
CHECKED	KJB
APPROVED	KJB

MOUNT POLLEY MINING CORPORATION

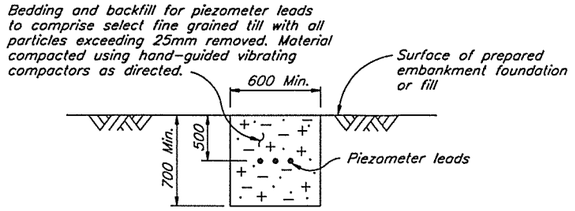
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY INSTRUMENTATION

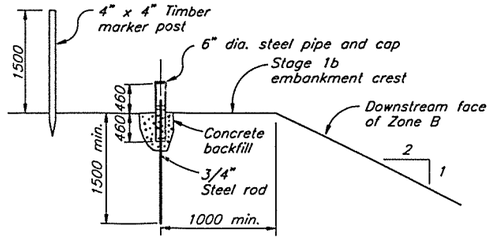
DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 510–77–01–1625.220 | REV. 7



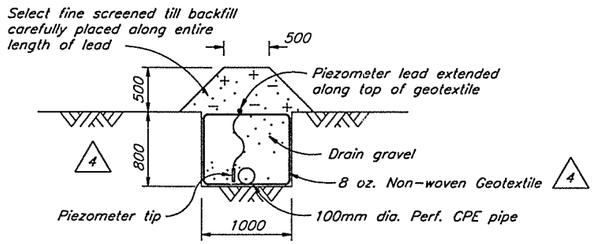
DETAIL A
INSTALLATION OF PIEZOMETERS IN BOREHOLES
N.T.S.



SECTION 1
TYPICAL SECTION THROUGH PIEZOMETER LEAD TRENCH IN PREPARED EMBANKMENT FOUNDATION OR IN ZONE S AND B FILL
N.T.S.



DETAIL OF SURFACE MOVEMENT MONUMENT
N.T.S.



DETAIL C
TYPICAL PIEZOMETER INSTALLATION IN EMBANKMENT FOUNDATION DRAIN OR TOE DRAIN
N.T.S.

NOTES 4

1. Dimensions are in millimeters unless otherwise noted.
2. Tailings piezometers to be installed during future investigation programs.

Scale 1000 500 0 1000 2000 mm

CAD FILE\1625\029\029 1:20 Plot 1=0.02 MAY 29, 1997

REFERENCE DRAWINGS	
DRG. NO.	DESCRIPTION
1625.220	TAILINGS STORAGE FACILITY – INSTRUMENTATION

REVISIONS				
REV.	DATE	DESCRIPTION	APPROVED	

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED
4	MAY 30/97	PARSHALL FLUME DELETED	KJB
3	MAR 24/96	ISSUED FOR CONSTRUCTION	
2	APR 1/96	NOTE ADDED	
1	JAN. 18/96	GROUNDWATER DRAINS REMOVED	
0	JUNE 2/95	ISSUED FOR TENDER	

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA K. D. K. EMBREE

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

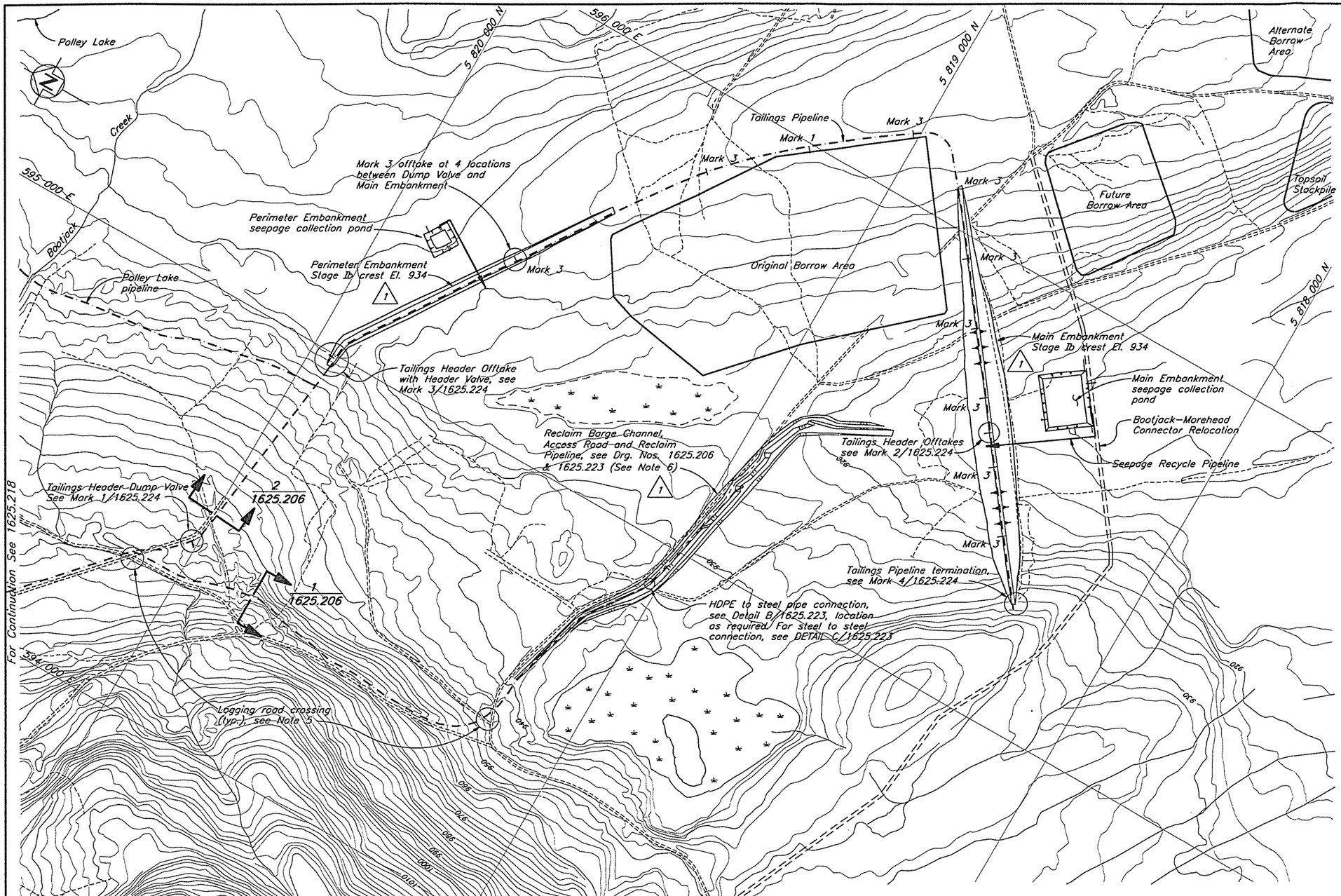
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
INSTRUMENTATION
SECTIONS AND DETAILS

DESIGNED	KDE/MBS
DRAWN	VY
CHECKED	KJB
APPROVED	KJB

DATE JUNE 2, 1995 | SCALE AS SHOWN | DRG. NO. 510-77-02-1625.221 | REV. 4



NOTES

1. *For Tailings Pipework offtake locations, see Drg. No. 1625.228.*
2. *Mark 3 offtakes temporarily omitted. Pipe sections have flanged joints to permit Mark 3 offtakes to be installed as required.*
3. *Mark 2 offtakes have been revised and are included on the movable discharge section, as shown on Mark 2/1625.224.*
4. *All bends in tailings and reclaim HDPE pipelines are made using natural flexibility of pipe unless otherwise noted. Minimum bend radius to be 25 diameter.*
5. *Pipelines at logging road crossings to be sleeved in 900 mm ø x 2mm minimum wall CSP culvert with 500 mm minimum depth of cover. Backfill to be well graded and compacted sand and gravel.*
6. *Reclaim pipeline is assumed to be required only to original ground elevation of 925 m. Additional pipe may be required if pond level at startup is lower than 925 m. See additional notes on Drg. No. 1625.206. Additional ramps to be added as required.*
7. *As–built information provided by Mount Polley Mining Corporation.*
8. *Topography has not been updated for 1997 Flyover.*
9. *Pipeline alignments to be updated based on as–built survey.*

Scale 100 50 0 100 200 300 400 500 m

CAD FILE\ 1625\042\042 1:5000 Plot 1=5 MAY 29, 1997

DRG. NO.	DESCRIPTION
1625.228	TSF – TAILINGS AND RECLAIM PIPEWORK PROFILE
1625.224	TSF – TAILINGS DISTRIBUTION SYSTEM – DETAILS
1625.223	RECLAIM PIPELINE DETAILS
1625.218	TAILINGS DISTRIBUTION AND RECLAIM SYSTEM – PLAN
1625.206	TSF – RECLAIM BARGE CHANNEL – EXCAVATION DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	AS–BUILT BARGE CHANNEL, EMBANKMENTS, AND PONDS	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA H. P. DEW

DESIGNED	HPD
DRAWN	AW/RDT
CHECKED	KDE
APPROVED	KJB

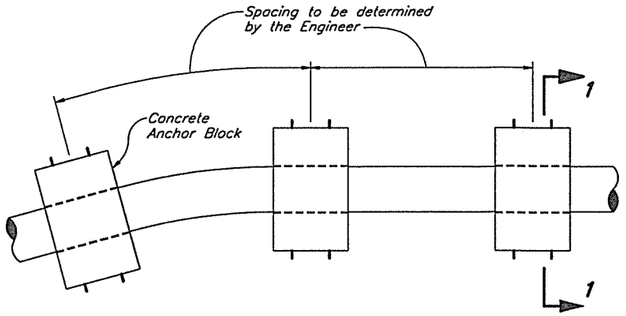
DATE JULY 15, 1996

MOUNT POLLEY MINING CORPORATION

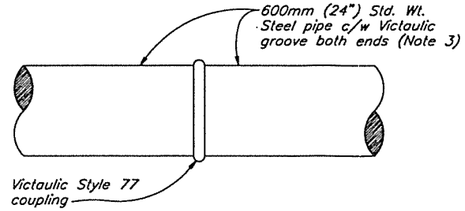
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY TAILINGS IMPOUNDMENT TAILINGS AND RECLAIM PIPEWORK PLAN

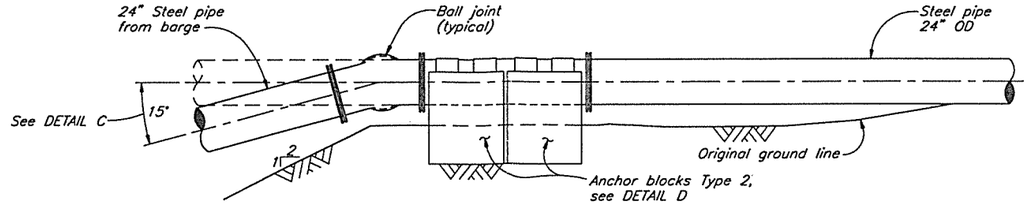
SCALE AS SHOWN | DRG. NO. 1625.222 | REV. 1



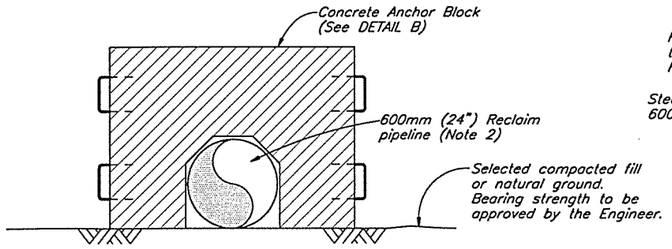
PIPELINE BEND ANCHORING
Scale B



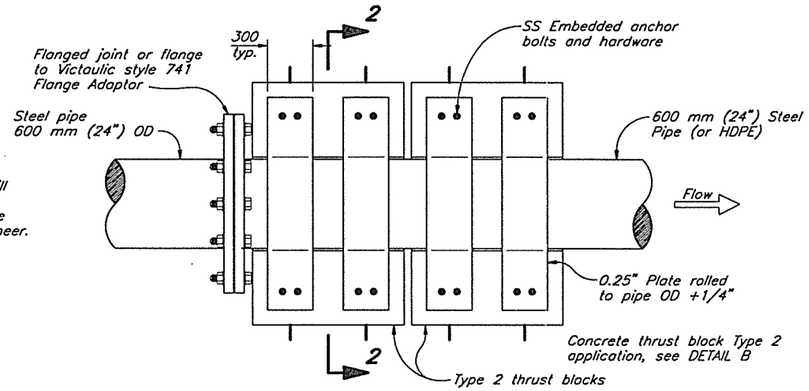
DETAIL C / 1625.222
STEEL RECLAIM PIPE CONNECTION
Scale A



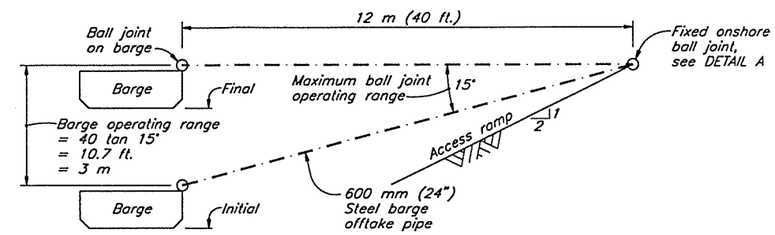
DETAIL A , A / 1625.206
ONSHORE BALL JOINT
Scale B



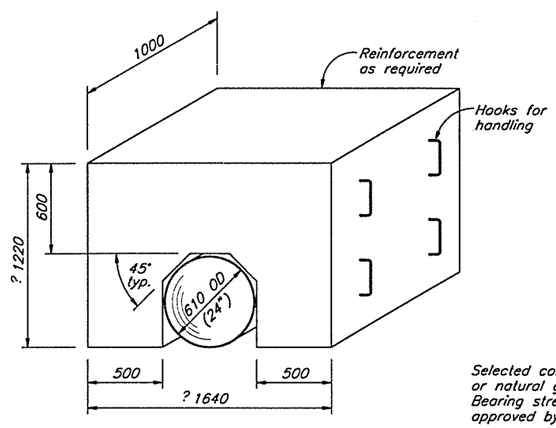
SECTION 1
CONCRETE ANCHOR BLOCK – TYPE 1 APPLICATION
Scale A



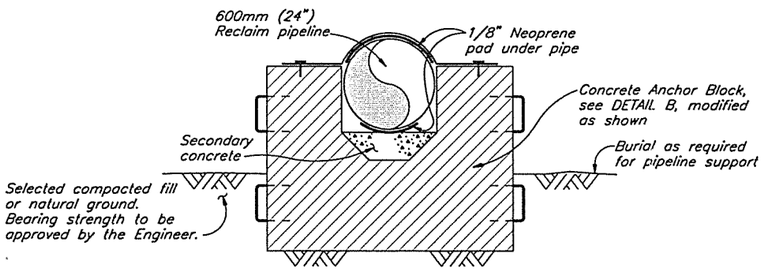
DETAIL D, B / 1625.222
CONCRETE THRUST BLOCK – TYPE 2 APPLICATION
CONNECTION BETWEEN STEEL AND HDPE PIPE
CONNECTION AT RECLAIM BOOSTER PUMPSTATION DISCHARGE
AND CONNECTION AT BARGE OFFTAKE BALL JOINT
Scale A



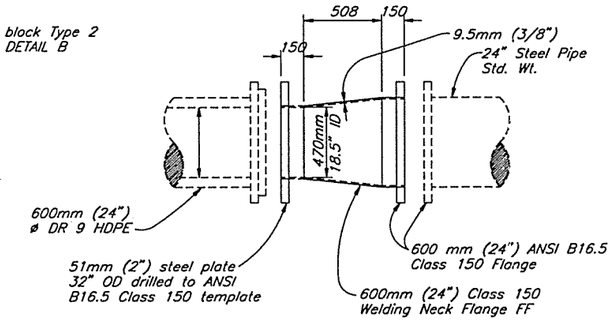
DETAIL C
BARGE OPERATING RANGE – SCHEMATIC



DETAIL B
TYPICAL PORTABLE CONCRETE BLOCK FOR 24" OD PIPE
(4.5 TONNE)
Scale A



SECTION 2
CONCRETE THRUST BLOCK – TYPE 2 APPLICATION
Scale A



DETAIL
REDUCER, SPECIAL, 24" HDPE TO STEEL
INSIDE DIAMETER ADAPTER
Scale A

NOTES

1. Concrete anchoring blocks to be used at barge ball joint and at locations where pipeline changes from steel to HDPE.
2. Anchor blocks may be used for reclaim or tailings pipeline as required by the Engineer. Modifications will be required for pipe diameter other than 24".
3. Victaulic grooves to be rolled if pipe wall thickness is less than 0.375".

B	2000	1000	0		2000		4000	mm	
A	1000	500	0		1000		2000	mm	

CAD FILE:\1625\040\040 1:20 Plot 1=0.02 MAY 29, 1997

/1

DRG. NO.	DESCRIPTION
1625.224	TAILINGS DISTRIBUTION SYSTEM – DETAILS
1625.222	TAILINGS IMPOUNDMENT – TAILINGS AND RECLAIM PIPEWORK PLAN
1625.206	TSF – RECLAIM BARGE CHANNEL – EXCAVATION DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	REFERENCE TO DRAWINGS REVISED	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROVINCE OF BRITISH COLUMBIA — R. P. DEN — PROFESSIONAL ENGINEER

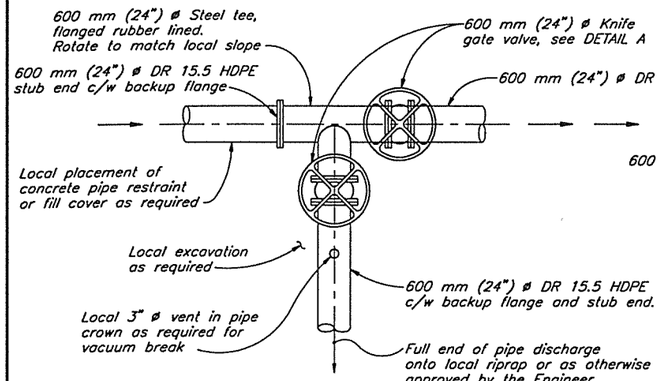
DESIGNED HPD/NM
DRAWN AW/RDT/NSD
CHECKED KDE
APPROVED KJB

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

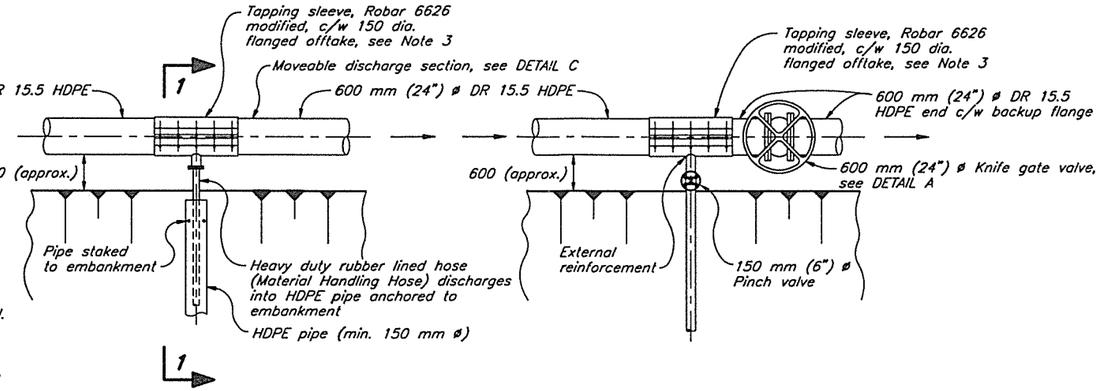
TAILINGS STORAGE FACILITY
RECLAIM PIPELINE DETAILS

DATE JULY 15, 1996 | SCALE AS SHOWN | DRG. NO. 1625.223 | REV. 1



TAILINGS HEADER DUMP VALVE (MARK 1/1625.222)

Scale A

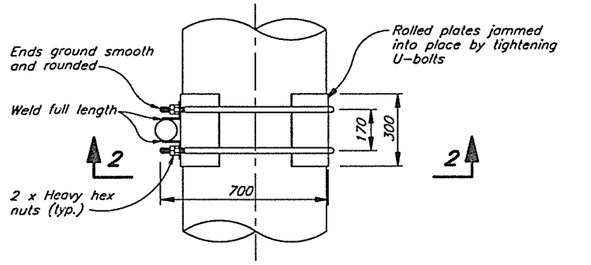


TYP. TAILINGS HEADER OFFTAKE (MARK 2/1625.222)

Scale A

TYP. TAILINGS HEADER OFFTAKE WITH HEADER VALVE (MARK 3/1625.222)

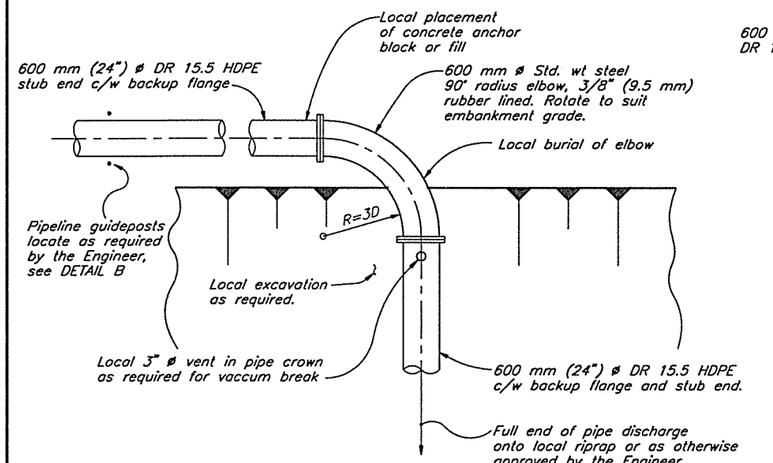
Scale A



PIPE RESTRAINT FOR 24" HDPE

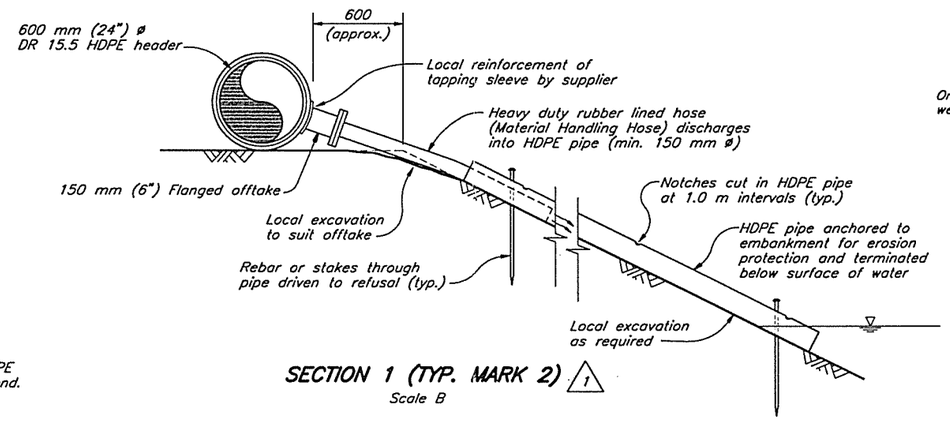
(Locate as required by the Engineer)

NTS



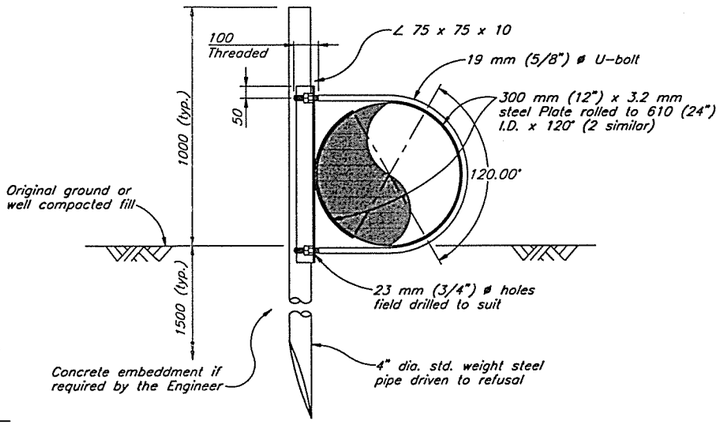
ALTERNATE TAILINGS HEADER PIPELINE TERMINATION (MARK 4/1625.222)

Scale A



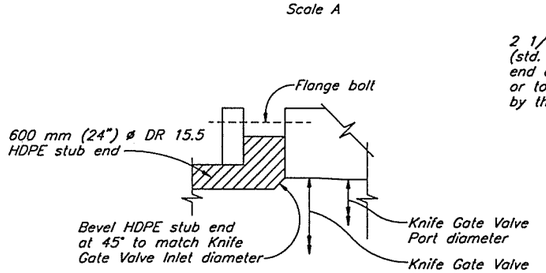
SECTION 1 (TYP. MARK 2) 1

Scale B



SECTION 2

NTS

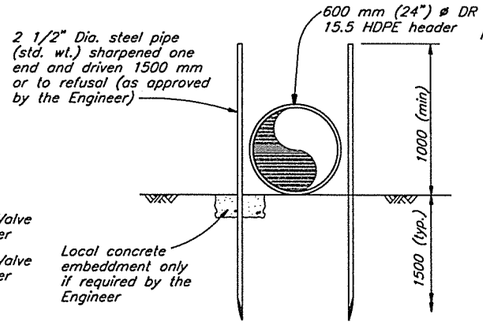


DETAIL A

KNIFE GATE INLET

(Note 4)

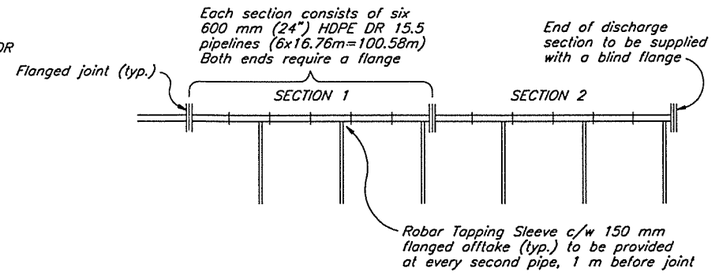
NTS



DETAIL B

GUIDEPOST

Scale B



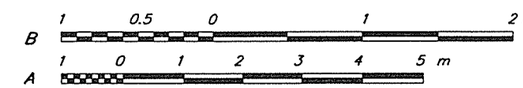
DETAIL C

1 SCHEMATIC PLAN OF MOVABLE DISCHARGE SECTION

NTS

NOTES

1. Rubber lining to be Linatex PGR or approved equivalent.
2. Pipe restraint by local burial of pipeline or as otherwise required by the Engineer to control movement due to thermal and hydraulic forces.
3. Robar 6626 c/w 1/4" rubber lining of offtake and external reinforcement of offtake to sleeve joint.
4. HDPE Pipe ID exceeds that of knife gate valve and is to be field bevelled to match.
5. HDPE pipelines to be connected under cool conditions with snaking allowance made for additional thermal contraction of empty pipeline.
6. Mark 2 and 3 offtakes to be added as required.



CAD FILE\1625\039\039 1:50 Plot 1=0.05 MAY 29, 1997

REFERENCE DRAWINGS	
1625.222	TSF – TAILINGS AND RECLAIM PIPEWORK PLAN
1625.228	TSF – TAILINGS AND RECLAIM PIPEWORK PROFILES

REVISIONS				
REV.	DATE	DESCRIPTION	APPROVED	
1	MAY 30/97	REVISED DISCHARGE SECTION	KJB	
0	JULY 15/96	ISSUED FOR CONSTRUCTION		

KNIGHT PIÉSOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

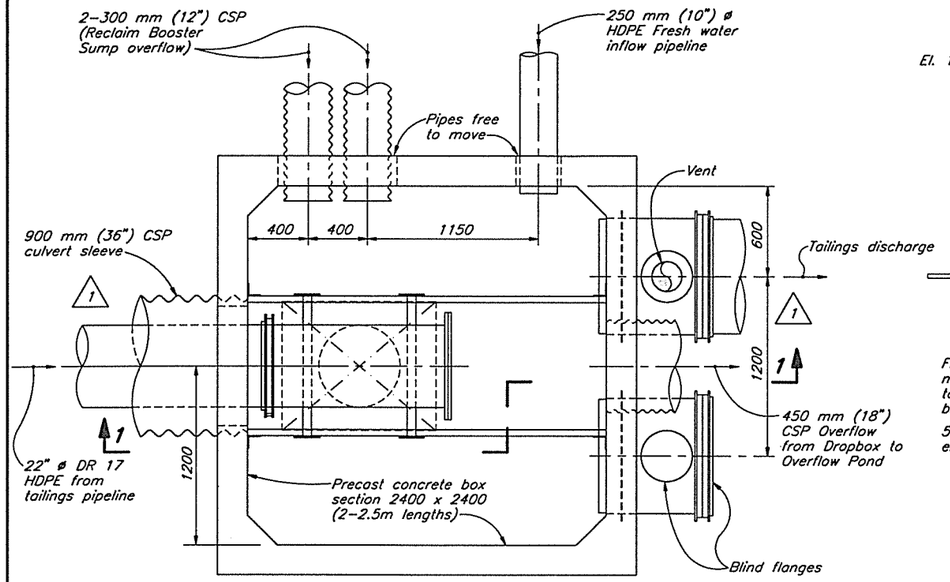
DESIGNED	HPD
DRAWN	AW/RDT
CHECKED	KDE
APPROVED	KJB

MOUNT POLLEY MINING CORPORATION

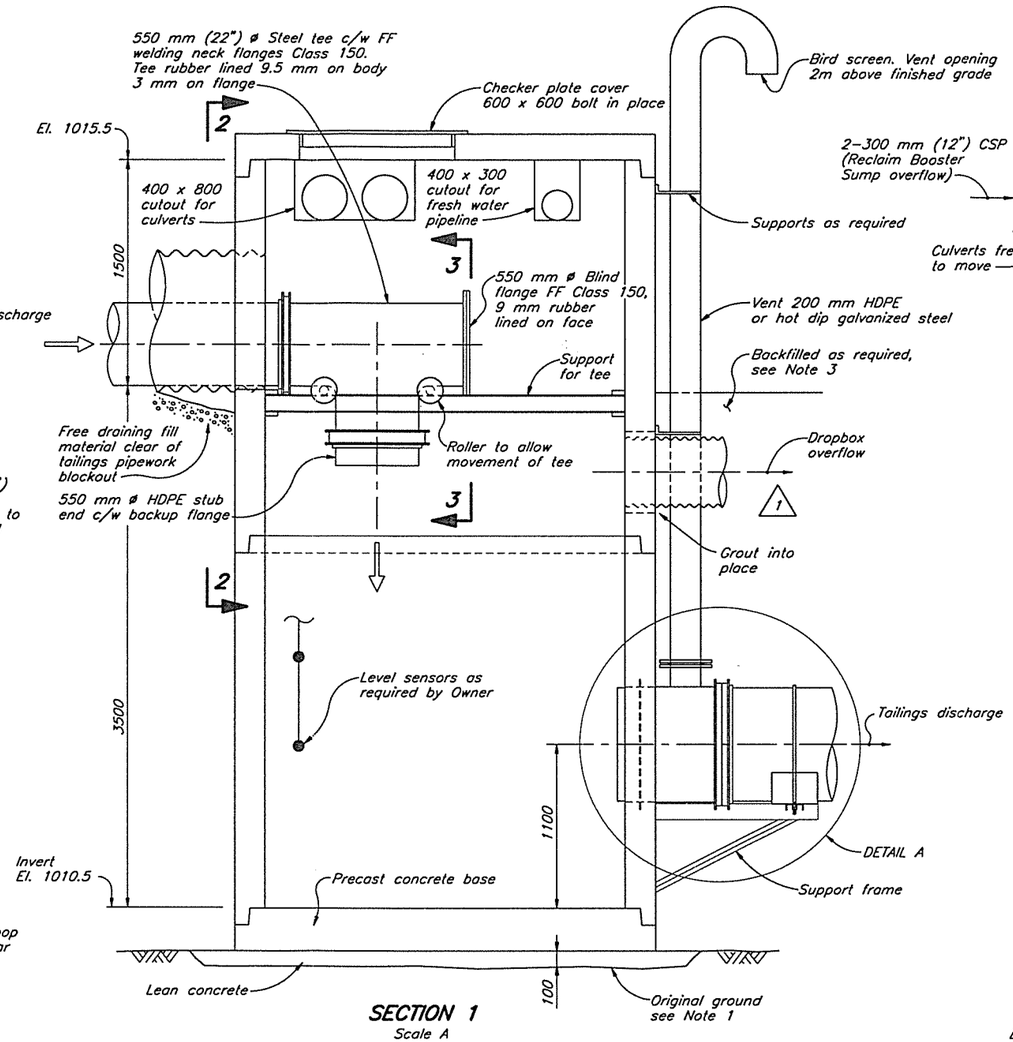
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
TAILINGS DISTRIBUTION SYSTEM
DETAILS

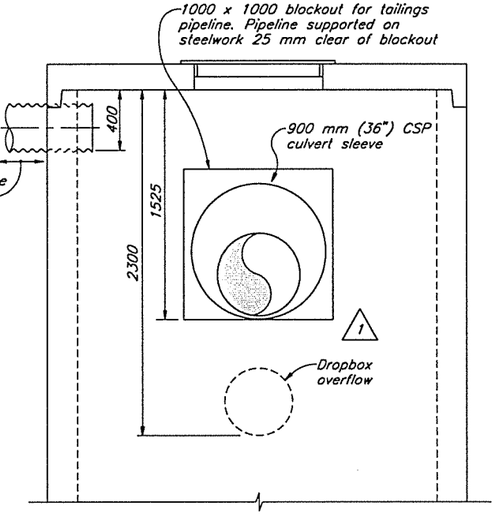
DATE JULY 15, 1996 | SCALE AS SHOWN | DRG. NO. 1625.224 | REV. 1



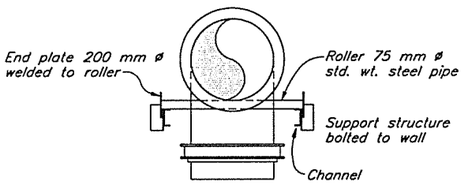
T2 TAILINGS DROPBOX
Scale A



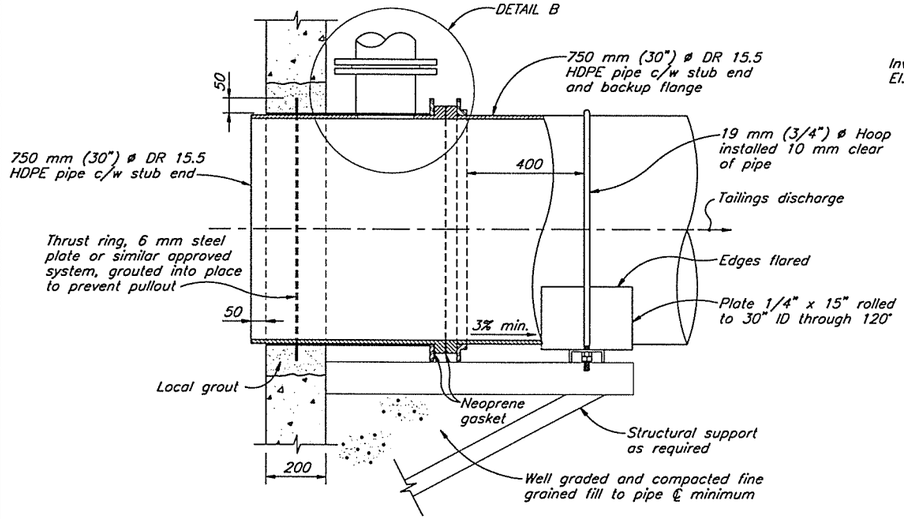
SECTION 1
Scale A



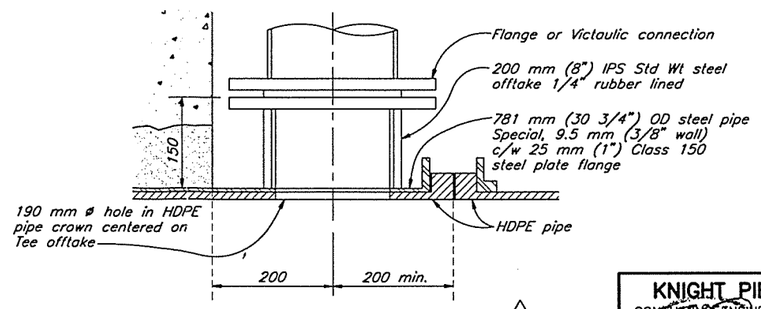
SECTION 2
Scale A



SECTION 3
Scale A



DETAIL A
DISCHARGE PIPELINE
Scale B



DETAIL B
VENT CONNECTION
Scale C

NOTES

1. Foundation bearing capacity to be 100 kPa min..
2. Structural steel bolting to be stainless steel.
3. Backfill around dropbox to be placed and compacted in max. 500 mm lifts.
4. Elevations to be updated based on as-built survey.

C	250	125	0	250	500 mm
B	500	250	0	500	1000 mm
A	1000	500	0	1000	2000 mm

CAD FILES\1625\DA1\D41 1:20 Plot 1=0.02 May 29, 1997

DRG. NO.	DESCRIPTION
1625.228	TSF – TAILINGS AND RECLAIM PIPEWORK PROFILES
1625.226	TSF – RECLAIM BOOSTER PUMP STATION, AREA – GENERAL ARRANGEMENT

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	REVISED DROPBOX	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA H. P. DEW

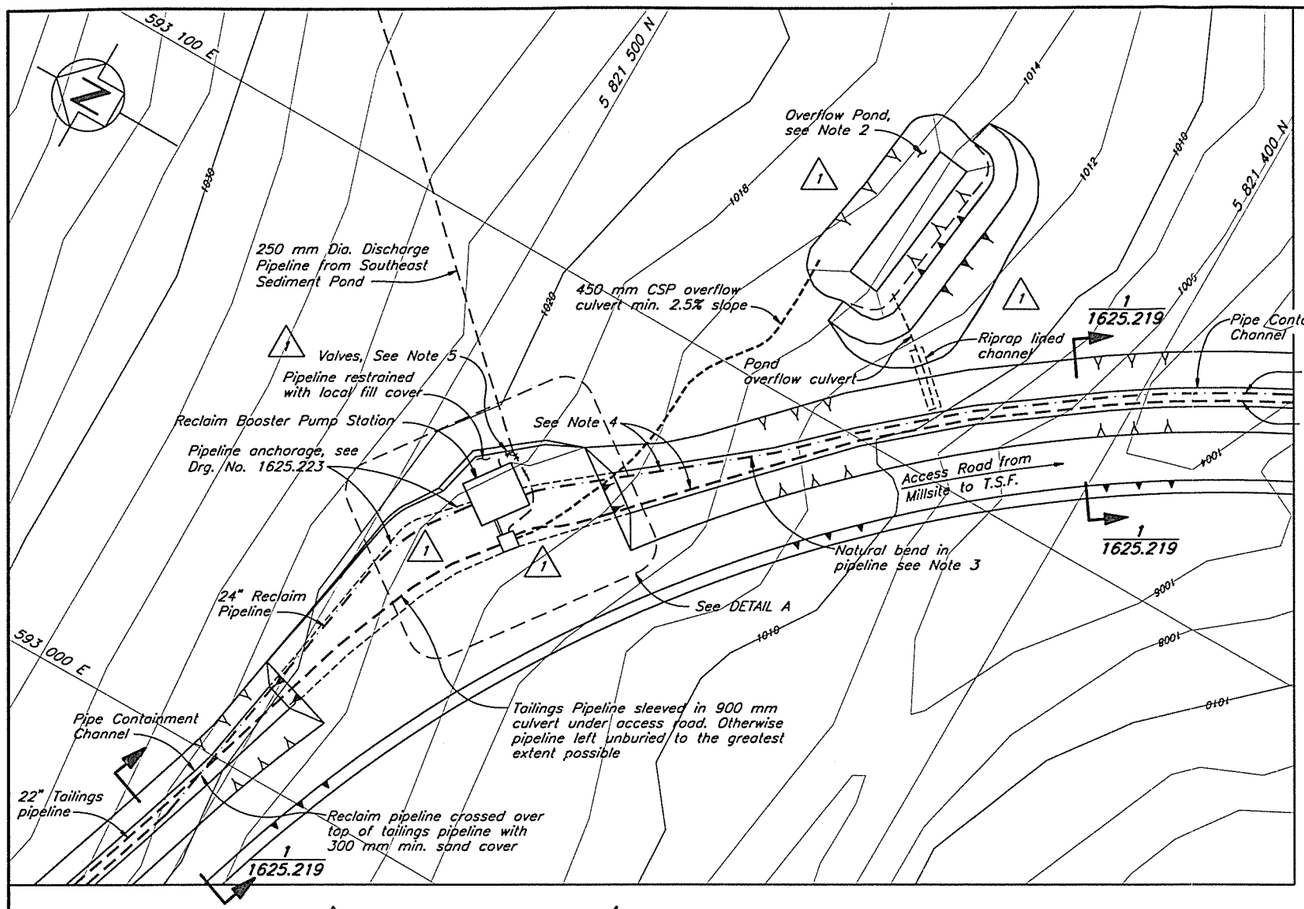
DESIGNED	HPD
DRAWN	TAM/NSD
CHECKED	HPD
APPROVED	KJB

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

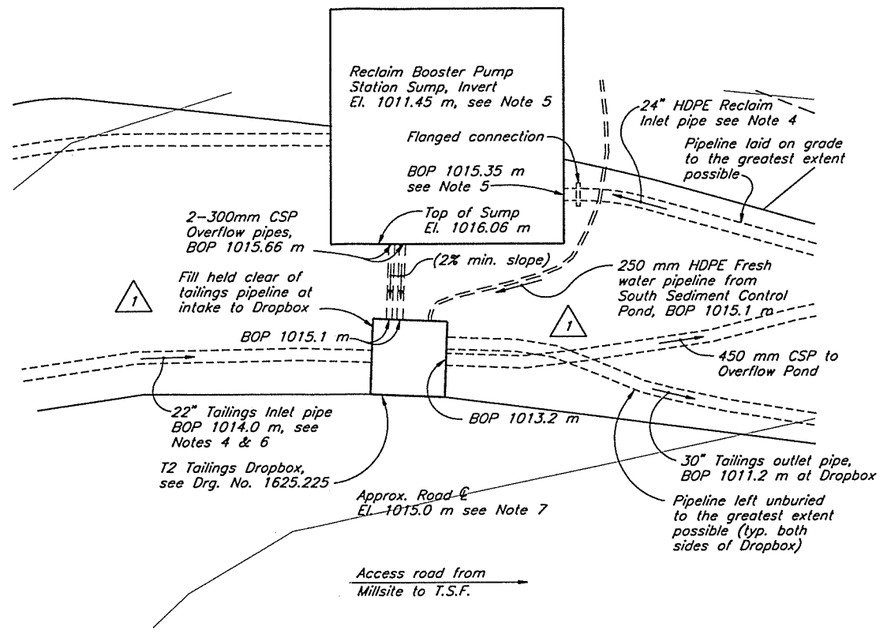
TAILINGS STORAGE FACILITY
TAILINGS PIPEWORK DETAILS
DROP BOX No. 2

DATE JULY 15, 1996 | SCALE AS SHOWN | DRG. NO. 1625.225 | REV. 1



1 DETAIL A 1625.218 – SCHEMATIC

RECLAIM BOOSTER PUMP STATION, DROP BOX No. 2 AND OVERFLOW POND No. 2



1 DETAIL A – SCHEMATIC

NTS

NOTES

1. Layout including cut and fill details to be approved by the Engineer to ensure basic BOP elevations and grades are achieved.
2. The 500 m^3 capacity of the Overflow Pond, is sufficient to contain the contents of the upstream tailings pipeline. Pond located by Mount Polley Mining Corporation.
3. Radius of natural bends in HDPE pipelines not to be less than 25 pipe diameters.
4. Tailings and Reclaim pipelines uniformly graded between pipe containment channel and structures without high or low points.
5. Details of pipelines into Reclaim Booster sump to be determined in conjunction with CSFM.
6. Invert of pipe containment channel is assumed to be 1 m below local road elevation.
7. Local riprap required where 450 mm CSP overflow culvert exits overflow pond.
8. Top of discharge culvert for overflow pond to be 1000 mm below top of overflow pond.
9. Pond overflow culvert is 600 mm CSP with fill cover and min. 2.5% slope to pipe containment channel.
10. As–built information provided by Mount Polley Mining Corporation.
11. Topography not updated by 1997 Flyover.
12. Pipeline alignments to be updated based on as–built survey.

LEGEND

BOP Bottom of Pipe

Scale 10 5 0 10 20 30 40 50 Metres

DRG. NO.	DESCRIPTION
1625.225	TSF – TAILINGS PIPEWORK DETAILS – DROP BOX No. 2
1625.223	TSF – RECLAIM PIPELINE DETAILS
1625.219	TSF – TAILINGS DISTRIBUTION & RECLAIM SYSTEM – SECTIONS & DETAILS
1625.218	TSF – TAILINGS DISTRIBUTION & RECLAIM SYSTEM – PLAN

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	REVISED LOCATION	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA N. P. DEW

DESIGNED	HPD/NM
DRAWN	VY
CHECKED	DAE.
APPROVED	KJB

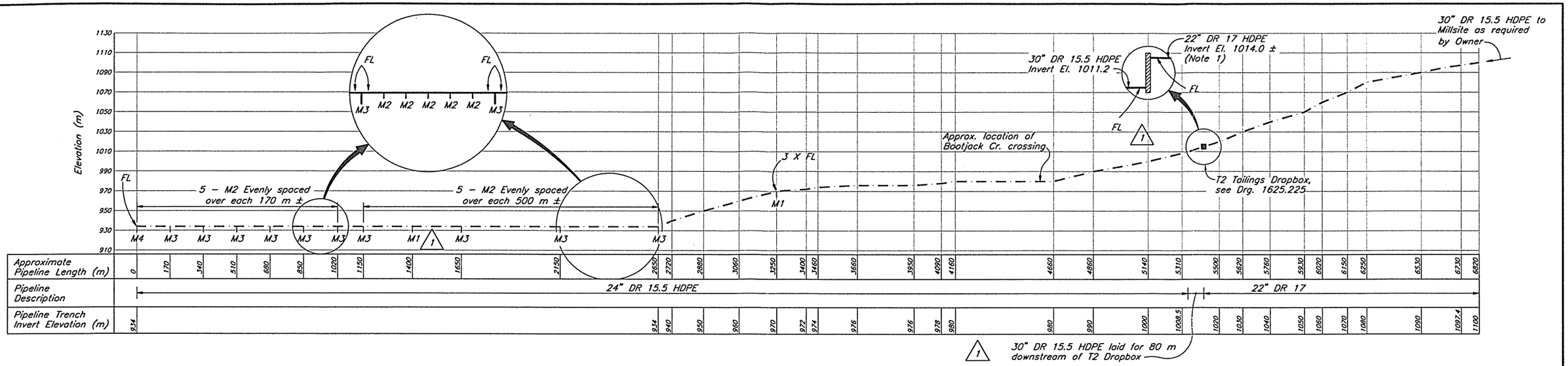
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

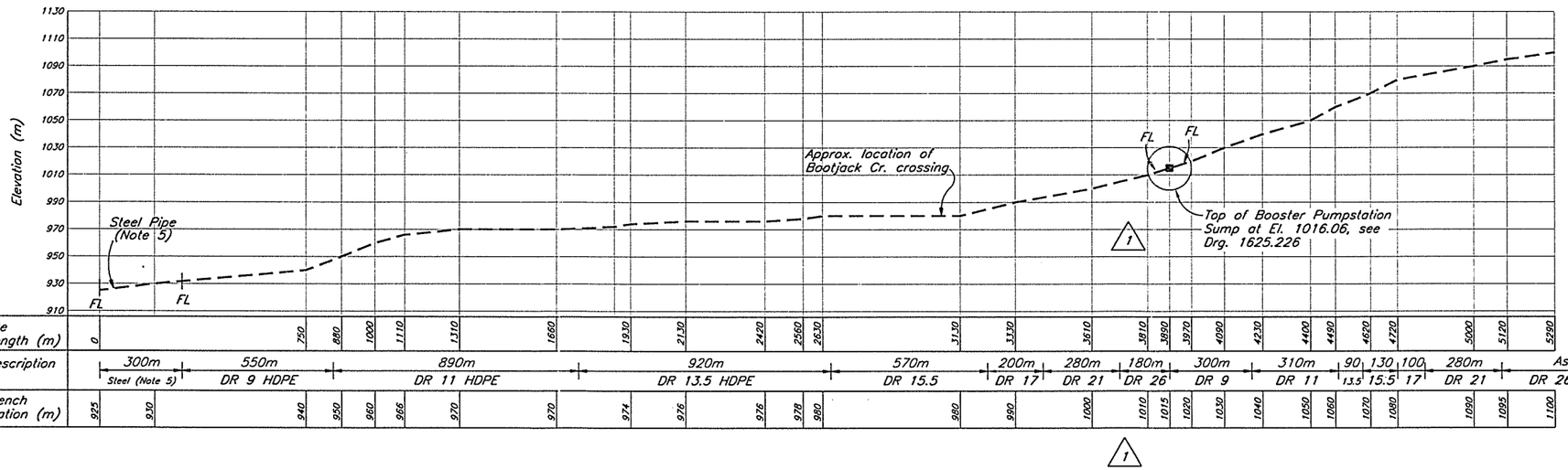
TAILINGS STORAGE FACILITY
RECLAIM BOOSTER PUMP STATION AREA
GENERAL ARRANGEMENT

DATE JULY 15, 1996 | SCALE AS SHOWN | DRG. NO. 1625.226 | REV. 1

CAD FILE\1625\052\052 1:500 Plot 1=0.50 MAY 29, 1997



TAILINGS PIPELINE PROFILE



NOTES

1. Profiles, invert elevations and pipeline lengths shown to be updated to variations resulting from As-Built access road alignment, local construction requirements and correction of survey errors.
2. Flange and offtake locations may be adjusted in the field by the Engineer.
3. Flanges in pipelines must be supported off the ground if pipelines are dragged into position.
4. Any section of HDPE pipeline damaged during installation by a local reduction in wall thickness of 10% or more is to be cut out and replaced.
5. Reclaim profile assumes a pond water level of 927 m at mill startup. If water level is lower, additional steel or DR 9 pipeline and additional barge channel excavation may be required. See also Note 2 on Drg. No. 1625.206.
6. All steel and HDPE DR 9 pipeline to be relocated with each barge relocation.
7. Butt fusion joining of lower DR pipe to higher DR pipe requires end of lower DR pipe to be bevelled to same inside diameter as higher DR pipe.

LEGEND

FL - Flange Joints (Minimum)

M1 - Mark 1 offtake (2 Required) Drg. 1625.224

M2 - Mark 2 offtake (45 Required) Drg. 1625.224

M3 - Mark 3 offtake (10 Required) Drg. 1625.224

M4 - Mark 4 offtake (1 Required) Drg. 1625.224

DR 9 - HDPE Pipe Dimensional Ratio (typical)

RECLAIM PIPELINE PROFILE

Scale 200 100 0 200 400 600 800 1000 Metres

DRG. NO.	DESCRIPTION
1625.226	TSF - RECLAIM BOOSTER PUMP STATION AREA - GENERAL ARRANGEMENT
1625.225	TSF - TAILINGS PIPEWORK DETAILS - DROP BOX NO. 2
1625.224	TSF - TAILINGS DISTRIBUTION SYSTEM - DETAILS
1625.206	TSF - RECLAIM BARGE CHANNEL - EXCAVATION DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
1	MAY 30/97	REVISED DROPBOX/PUMPSTATION LOCATIONS	KJB
0	JULY 15/96	ISSUED FOR CONSTRUCTION	

REVISIONS

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS - VANCOUVER, B.C.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA H. P. DEVI

DESIGNED	HPD
DRAWN	NSD
CHECKED	KDE
APPROVED	KJB

DATE JULY 15, 1996

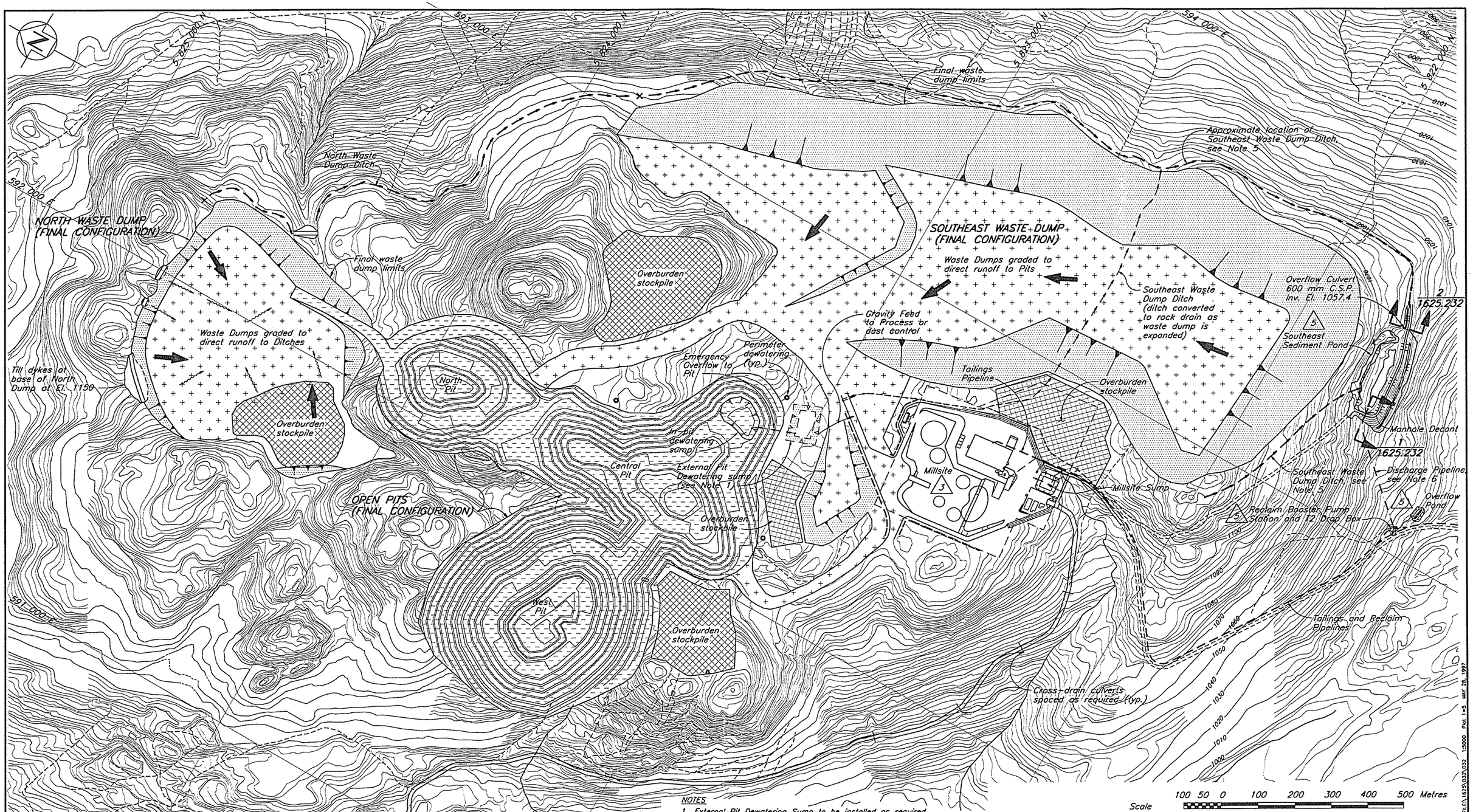
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
TAILINGS AND RECLAIM
PIPEWORK PROFILES

SCALE AS SHOWN | DRG. NO. 1625.228 | REV. 1

CAD FILE\1625\DWG\048 1=10000 Plot 1=10 May 30, 1997



NOTES

1. External Pit Dewatering Sump to be installed as required.
2. Open Pit and Waste Dump layouts digitized from information supplied by Mount Polley Mining Corporation.
3. Location of Southeast Sediment Pond by Others.
4. As-built information provided by Mount Polley Mining Corporation.
5. As-built survey of Southeast Waste Ditch will be provided by Mount Polley Mining Corporation.
6. As-built survey of Discharge Pipeline will be provided by Mount Polley Mining Corporation.

DRG. NO.	DESCRIPTION
1625.232	DRAINAGE PLAN – SECTIONS AND DETAILS

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED
5	MAY 8/97	UPDATED SOUTHEAST SEDIMENT POND	KDE
4	JULY 15/96	RELOCATE BOOSTER PUMP STATION	
3	APRIL 1/96	MILLSITE AND CONTROL POND REVISED	

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED
2	MAR 20/96	UPDATE DRAINAGE, MILLSITE & SOUTH SEDIMENT CONTROL POND	
1	MAR 14/96	UPDATED OPEN PITS, WASTEDUMPS, SITE DRAINAGE	
0	AUG 24/95	ISSUED FOR CONSTRUCTION	

REVISIONS

* "SIGNATURES AND PROFESSIONAL SEAL ON REV.0 ORIGINAL"

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

DRAINAGE PLAN
MINE SITE

DESIGNED	KDE/MM
DRAWN	RDT/VY/NSD
CHECKED	*
APPROVED	*

DATE AUGUST 24, 1995 | SCALE AS SHOWN | DRG. NO. 1625.230 | REV. 5

CAD FILE\ 1625\ 032\ 032 1:5000 Plot 1=1 MAY 28, 1997

FUTURE WASTE DUMP

5 822 600 N

5 822 400 N

5 822 200 N

5 822 800 N

592 800 E

592 600 E

592 400 E

Overburden stockpile

Mill Site Berm

Tailings, Reclaim and Millsite Sump Drainage Pipelines

Scale

Tailings Pipeline

Outlet structure

2 1625.232

Conc. storage

Substation

Overflow

CONCENTRATOR BUILDING

Sewage treatment plant

Reclaim Pipeline

Mill Site Sump

Future Waste Dump Runoff Collection Ditch

4 1625.232

Fuel Station

Coarse Ore Stockpile

Preconstruction Diversion Ditch

Culvert

Fence and gate

1 1625.232

Guard house

Cattle guard

Millsite sump drainage inlet, see Note 6

Infill and grade to suit drainage

Surge Pile

Pebble Stockpile

Fine Ore Stockpile

Crushing Building

Crushed Road Fill

HAUL ROAD

Mill Site Berm, see Note 2

3 1625.232

Access road

Preconstruction Diversion Ditch

Scale 20 10 0 20 40 60 80 100 Metres

NOTES

1. Millsite layout provided by C.S.F.M.
2. South millsite berm can be built higher if required.
3. Dropbox, tailings and reclaim pipeline and sewage line final elevations to be determined after final grading elevations provided by C.S.F.M.
4. Pipes to be placed in trenches must be bedded on compacted fill or dense in-situ till. Pipe trenches to be backfilled with select fine grained till with all particles exceeding 25 mm removed and compacted with hand held jumping jack compactor.
5. Setting out details not included. Berms and Mill Site Sump have been constructed.
6. Millsite sump drainage inlet to be located where tailings pipeline is under gravity (non-pressurized) flow conditions. Drainage inlet to comprise on HDPE tee on tailings pipeline.
7. Topography not updated for 1997 Flyover.
8. Pipeline alignments to be updated based on as-built survey.

* "SIGNATURES AND PROFESSIONAL SEAL ON REV.0 ORIGINAL"

CAD FILE\ 1625\034\034 1:1250 Plot 1=1.25 MAY 28, 1997

REFERENCE DRAWINGS	
1625.232	DRAINAGE PLAN – SECTIONS AND DETAILS
DRG. NO.	DESCRIPTION

REVISIONS			
6	MAY 30/97	REVISED MILLSITE SUMP DRAINAGE INLET	RJB
5	JULY 15/96	OVERFLOW POND NO. 1 ADDED	
REV.	DATE	DESCRIPTION	APPROVED

REVISIONS			
4	APR 1/96	MILL SITE REVISED	
3	MAR 25/96	ADD BATTERY LIMIT	
2	MAR 20/96	UPDATE DRAINAGE AND MILLSITE	
1	MAR 14/96	RELOCATED OPEN PIT SUMP	
0	AUG 24/95	ISSUED FOR CONSTRUCTION	
REV.	DATE	DESCRIPTION	APPROVED

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

*

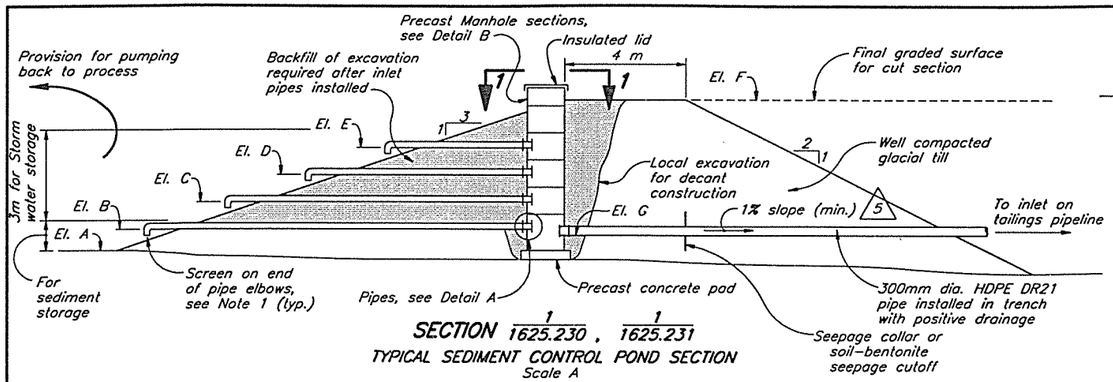
DESIGNED MM/KDE
DRAWN VY/NSD/RDT
CHECKED *
APPROVED *

MOUNT POLLEY MINING CORPORATION

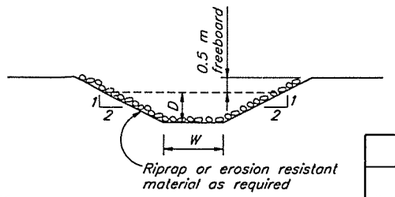
MOUNT POLLEY PROJECT

DRAINAGE PLAN MILLSITE

DATE AUG. 24, 1995 | SCALE AS SHOWN | DRG. NO. 1625.231 | REV. 6



SECTION 1/1625.230 , 1/1625.231
TYPICAL SEDIMENT CONTROL POND SECTION
Scale A



SECTION 4/1625.231
TYPICAL DITCH SECTION
Scale A

DITCH DIMENSIONS		
Ditch	W(m)	D(m)
All Mill Site Diversion Ditches	1.0	0.35
All Waste Dump Ditches	1.0	0.6

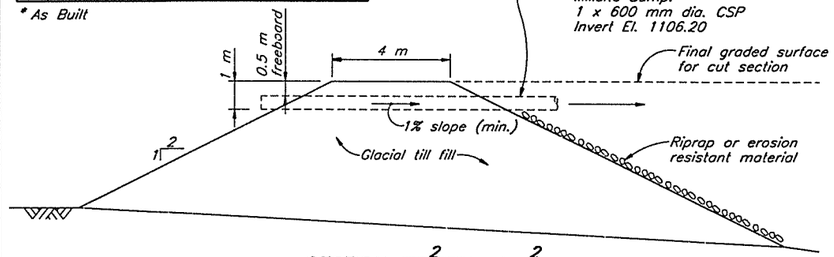
5 NOTES

1. Pipe elbows provided for oil skimming.
2. Sediment control pond fill sections to be constructed using suitable glacial till materials from local excavations.
3. Fill sections to be constructed in max. 0.5 m lifts and compacted prior to the placement of the next lift.
4. Silt fence and hay bales provided for sediment control.
5. Rockfill to comprise clean coarse gravel and cobbles.
6. All pond excavations and fill sections to be completed in low permeabilty glacial till materials.

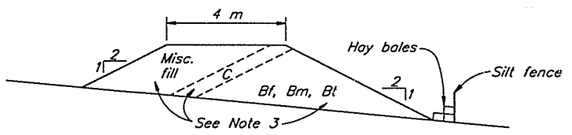
El.	Millsite Sump *	Southeast Sediment Pond *	Pit Dewatering Sump
A	1100.00	1052.20	To Be Determined
B	1100.91	1053.56	
C	1101.81	1054.42	
D	1102.70	1055.29	
E	1103.61	1056.18	
F	1107.40	1058.00	
G	1100.56	1053.37	

5

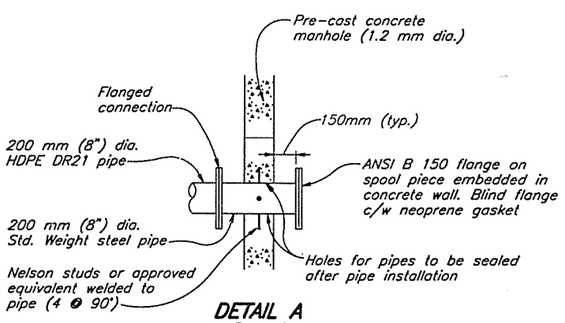
* As Built



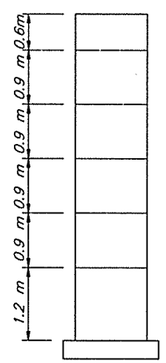
SECTION 2/1625.230, 2/1625.231
TYPICAL SEDIMENT CONTROL POND OVERFLOW CULVERT
Scale A



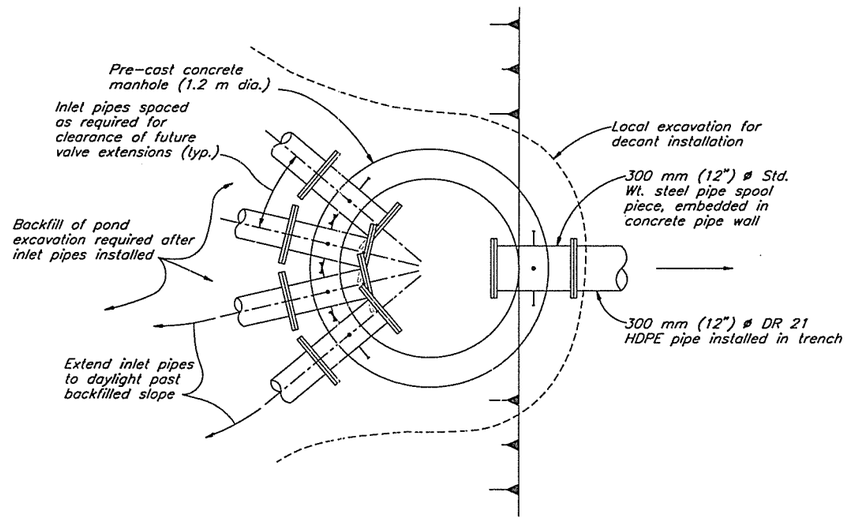
SECTION 3/1625.231
MILLSITE BERM SECTION
Scale A



DETAIL A
Scale C



DETAIL B
TYPICAL MANHOLE SECTIONS FOR 5 m DEEP POND
NTS

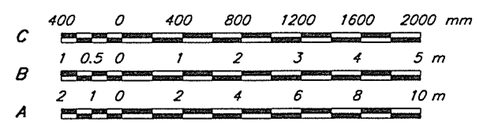


SECTION 1
Scale C

POND	STORAGE VOLUMES (m^3)		CRITERIA
	Live Storage	Dead Storage	
Southeast Sediment Pond	40,000 *	3,000 *	10yr 24 hour precipitation event at start-up of operations
Pit Dewatering Sump – Initial	Not required	Not required	1.5 x 10yr 24 hour precipitation event at start-up of operations
Pit Dewatering Sump – Final	24,400	6,700	
Millsite Sump	9,000 *	3,000 *	1.5 x 10yr 24 hour precipitation event

NOTES:
1. Pit Dewatering Sump size to be increased in conjunction with waste dump expansion.
2. Final Pit Dewatering Sump includes 10% of Open Pit inflows.
3. Typical Sediment Control Pond and Typical Sediment Control Pond Overflow Culverts cross-sections will change in fill construction and will be appropriately adjusted in the field as determined by the Engineer.

* As-built



* "SIGNATURES AND PROFESSIONAL SEAL ON REV.0 ORIGINAL"

CAD FILE\ 1625\033\033 1:100 Plot 1=0.1 STD.1 MAY 28, 1997

REFERENCE DRAWINGS	
DRG. NO.	DESCRIPTION
1625.230	DRAINAGE PLAN – MINE SITE
1625.231	DRAINAGE PLAN – MILL SITE

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED
5	MAY 8/97	ELEVATIONS MODIFIED	KDE
4	JULY 15/96	DETAIL AND ELEVATIONS MODIFIED	
3	APR 1/96	UPDATE SEDIMENT CONTROL POND	
2	MAR 20/96	UPDATE SEDIMENT CONTROL POND	
1	MAR 14/96	UPDATE DITCHES AND NOTE 3 ADDED	
0	AUG 24/95	ISSUED FOR CONSTRUCTION	

KNIGHT PIESOLD LIMITED
CONSULTING ENGINEERS – VANCOUVER, B.C.

*

DESIGNED KDE/MM
DRAWN RDT/NSD
CHECKED *
APPROVED *

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

DRAINAGE PLAN SECTIONS AND DETAILS

DATE AUGUST 24, 1995 | SCALE AS SHOWN | DRG. NO. 1625.232 | REV. 5

595 000 E
5 821 000 N
Polley Lake
Creek
Bootjack
596 000 E
5 820 000 N
5 819 000 N
5 818 000 N
594 000 E
Perimeter Embankment seepage collection pond
Perimeter Embankment Stage Ib crest El. 934
Identification labels as per field grid
Original Borrow Area
S.O.L., see Drg. No. 1625.205
Alternate Borrow Area
Topsoil stockpile
Future Borrow Area
Main Embankment Stage Ib crest El. 934
Main Embankment seepage collection pond
Lower Basin Liner
Upper Basin Liner
Reclaim barge channel
Bootjack–Morehead Connector Relocation
Tailings pipeline route
Reclaim pipeline route
Tailings and Reclaim pipeline route
S.O.L., see Drg. No. 1625.205
1627.001
1627.002
1627.003

LEGEND

- 1997 Borrow Area Drillhole
- 96-86 1996/1997 Test Pits
- CPT/PRW Investigation
- GW96-2B 1996 Groundwater Monitoring Well
- TP95-2B 1995 Test Pit
- TP61 1989 Test Pit
- MP89-229 Condemnation Drillhole
- MP89-231 Condemnation Drillhole with pneumatic and standpipe piezometer
- MP89-232 Condemnation Drillhole with standpipe piezometer

NOTES

1. Basin liner limits finalized from exploration trenches.
2. All drillholes in tailings basin grouted as per technical specifications.
3. As-built information provided by Mount Polley Mining Corporation.
4. Topography not updated for 1997 flyover.
5. Results of previous investigations are available in previously issued reports.
6. Pipeline alignments to be updated based on as-built survey.

Scale 100 0 100 200 300 400 500 m

CAD FILE\1627\01\01 1:5000 Plot 1=5 MAY 29, 1997

DRG. NO.	DESCRIPTION	REV.	DATE	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		REVISIONS			

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0	MAY 30/97	ISSUED FOR UPDATED DESIGN REPORT	KJB
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DRAWN	TAM
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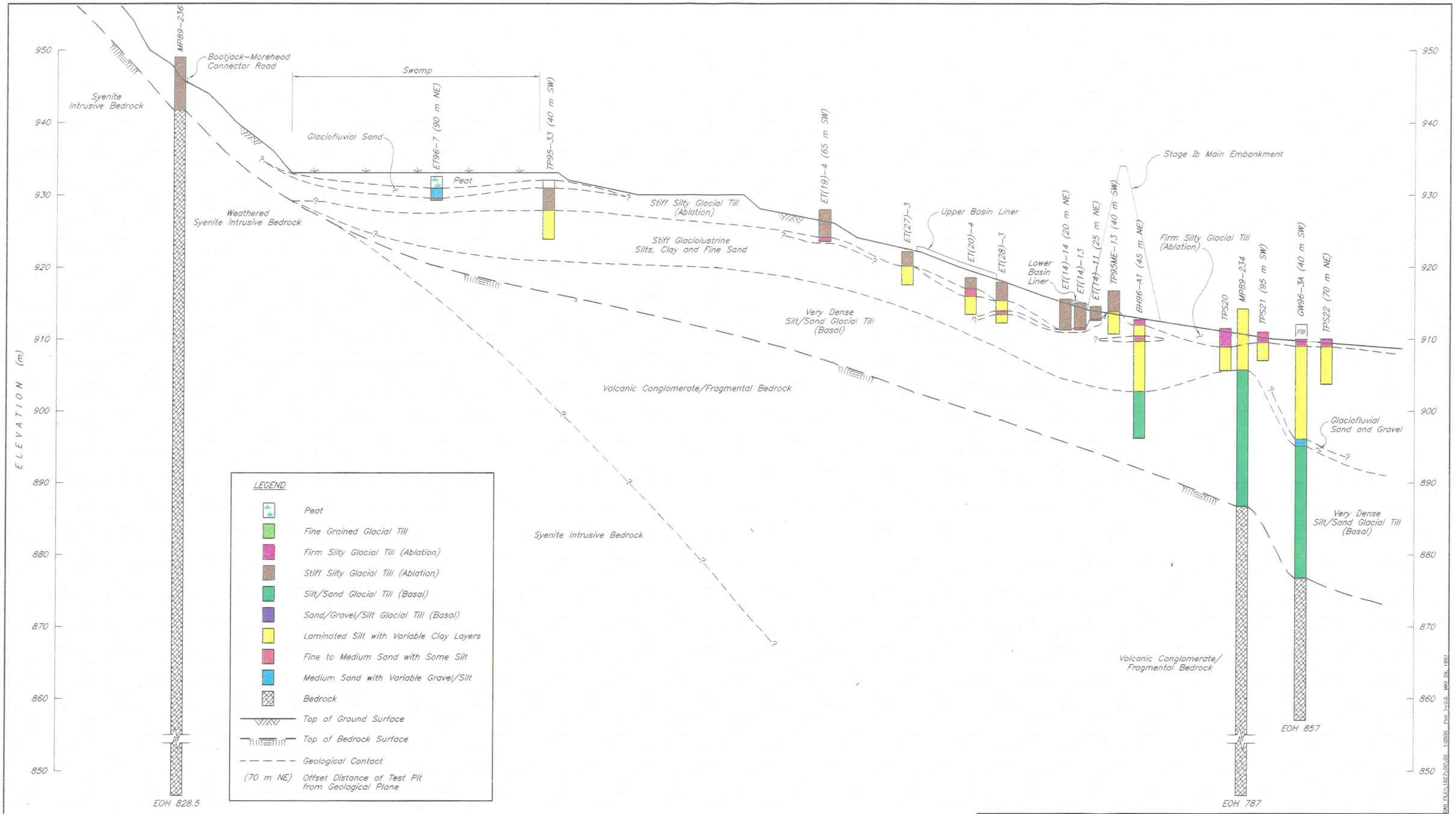
MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS LOCATION PLAN

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.001 | REV. 0



Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION	REV.	DATE	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
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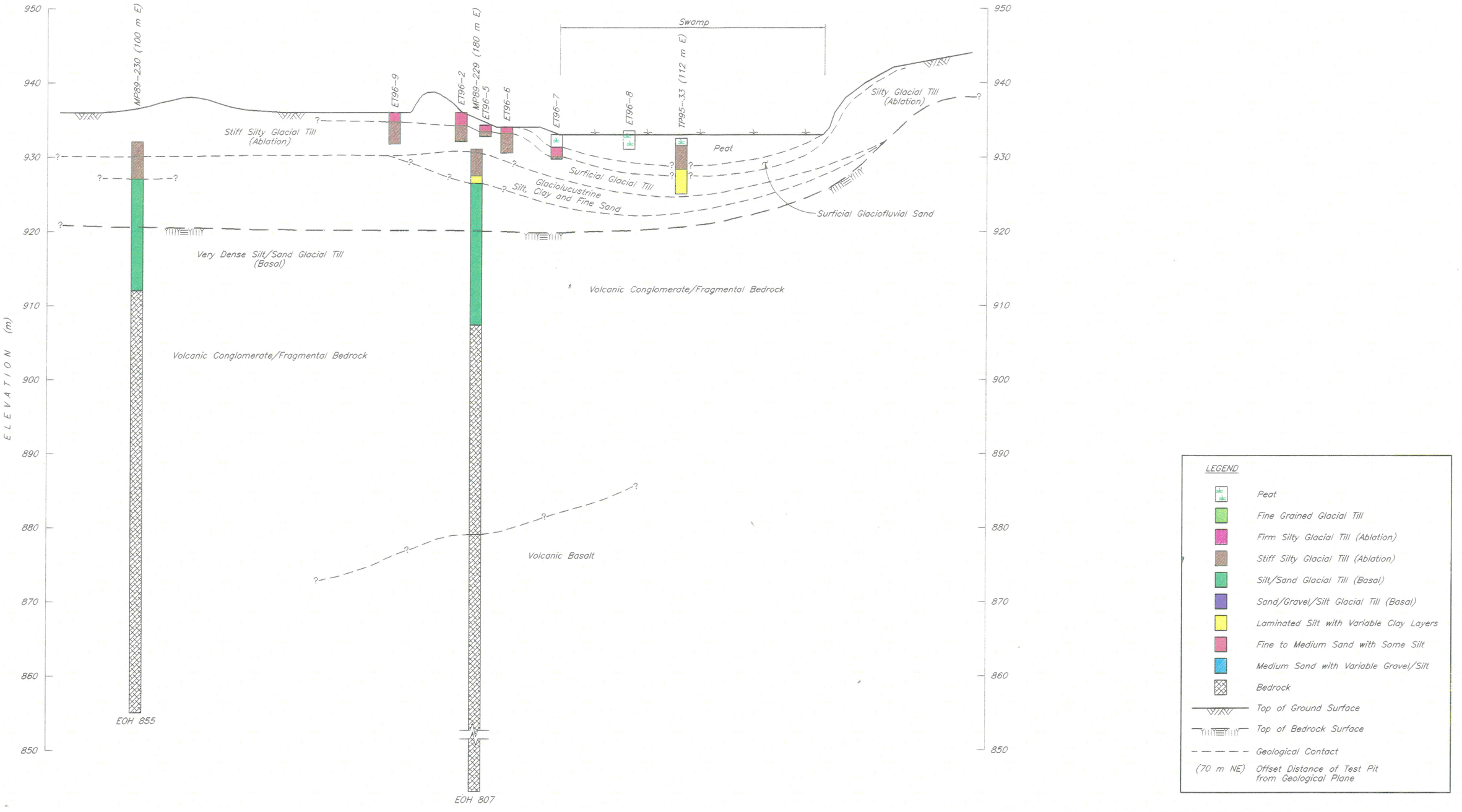
TAILINGS STORAGE FACILITY
GEOLOGICAL INVESTIGATIONS
SECTION 1

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.002 | REV. 0

CAD FILE: \1627\1\DG\02 1:2500 Plot: 1=2.5 MAY 29, 1997



Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	APPROVED
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REV.	DATE	DESCRIPTION	APPROVED
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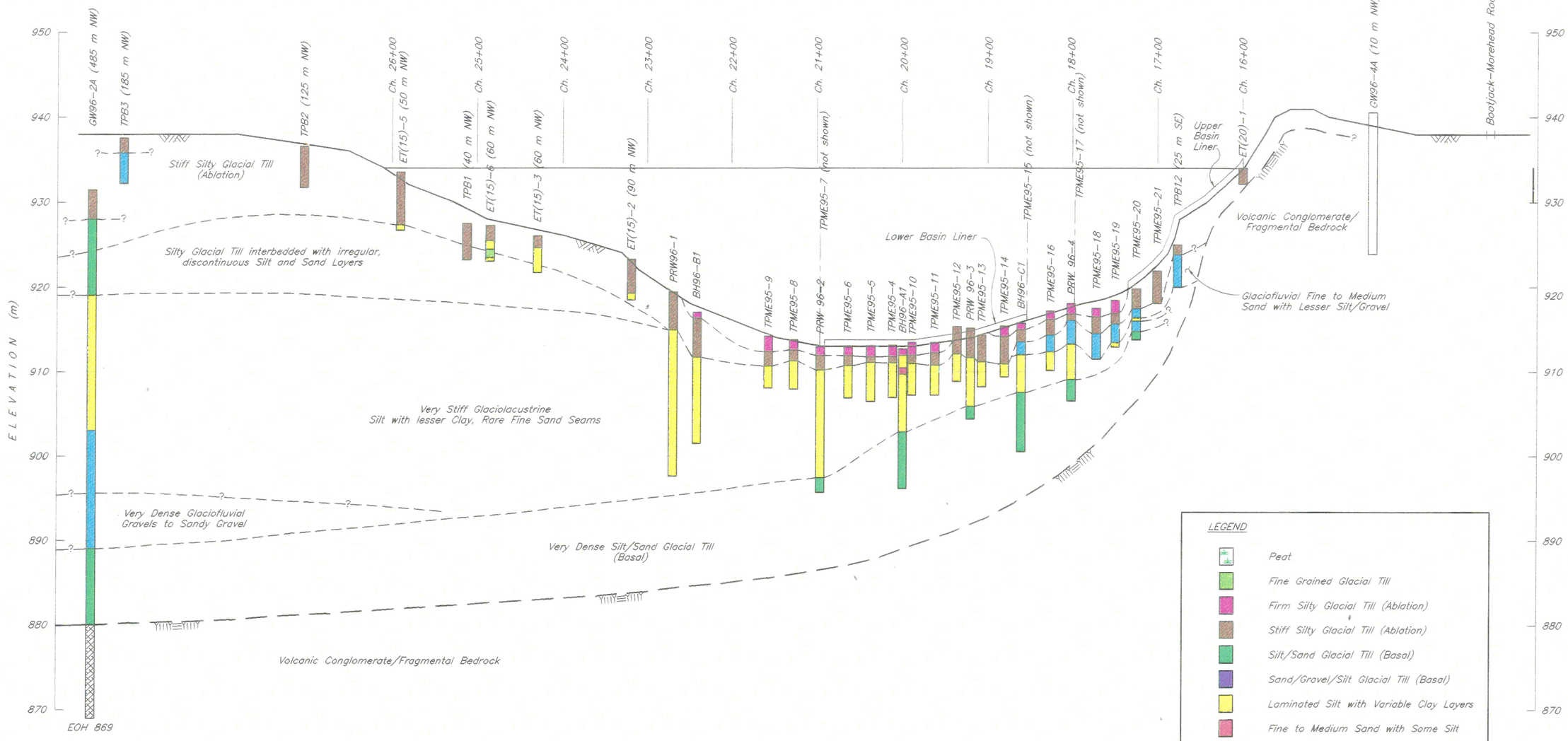
TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS SECTION 2

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.003 | REV. 0

CAD FILE: \627\A\03\03_1-2500 Plot 1=2.5 MAY 29, 1997

(MAIN EMBANKMENT CENTRELINE)



NOTE: Not all investigations are shown on this section, but the results have been used in the interpretation of the geological conditions.

LEGEND

- Peat
- Fine Grained Glacial Till
- Firm Silty Glacial Till (Ablation)
- Stiff Silty Glacial Till (Ablation)
- Silt/Sand Glacial Till (Basal)
- Sand/Gravel/Silt Glacial Till (Basal)
- Laminated Silt with Variable Clay Layers
- Fine to Medium Sand with Some Silt
- Medium Sand with Variable Gravel/Silt
- Bedrock
- Top of Ground Surface
- Top of Bedrock Surface
- Geological Contact
- (70 m NE) Offset Distance of Test Pit from Geological Plane

Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
0	MAY 30/97	ISSUED FOR UPDATED DESIGN REPORT	KJB
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DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.004 | REV. 0

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY
GEOLOGICAL INVESTIGATIONS
SECTION 3

DWG FILE:\1627\VIA\04 1:2500 Plot 1=2.5 MAY 29, 1997

ELEVATION (m)

950
940
930
920
910
900
890
880
870
860
850

MP89-230 (175 m SW)

EOH 855

Swamp

TP95-28 (95 m NE)

Soft Silt

Peat

Silt, some Sand (Ablation Till)

Very Dense Silt/Sand Glacial Till (Basal)

Volcanic Conglomerate Fragmental Bedrock

TP Barge 1 (95 m SW)

Bootjack-Morehead Connector Road

MP89-232 (74 m NE)

TP Barge 2

TP Base of Reclaim Barge Channel

TP Barge 3

TP95-35 (20 m NE)

ET08/14-8 (10 m NE)

ET08/14-5 (25 m NE)

Lower Basin Liner

ET08/14-10 (20 m SW)

BH96-A1 (15 m SW)

Stage Ib Main Embankment

Glaciofluvial/Lacustrine Fine Grained Sand/Silt

Very Dense Silt/Sand Glacial Till (Basal)

MP89-234 (30 m SW)

S20.5

S22 (160 m NE)

GW96-3A (55 m NE)

Fill

New Bootjack-Morehead Connector Road

EOH 857

EOH 787

Volcanic Conglomerate/Fragmental Bedrock

Mudstone

Sandstone

Volcanic Conglomerate/Fragmental Bedrock

EOH 799

LEGEND

- Peat
- Fine Grained Glacial Till
- Firm Silty Glacial Till (Ablation)
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- Sand/Gravel/Silt Glacial Till (Basal)
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- Medium Sand with Variable Gravel/Silt
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- Top of Bedrock Surface
- Geological Contact
- (70 m NE) Offset Distance of Test Pit from Geological Plane

Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
0	MAY 30/97	ISSUED FOR UPDATED DESIGN REPORT	KJB
REVISIONS			

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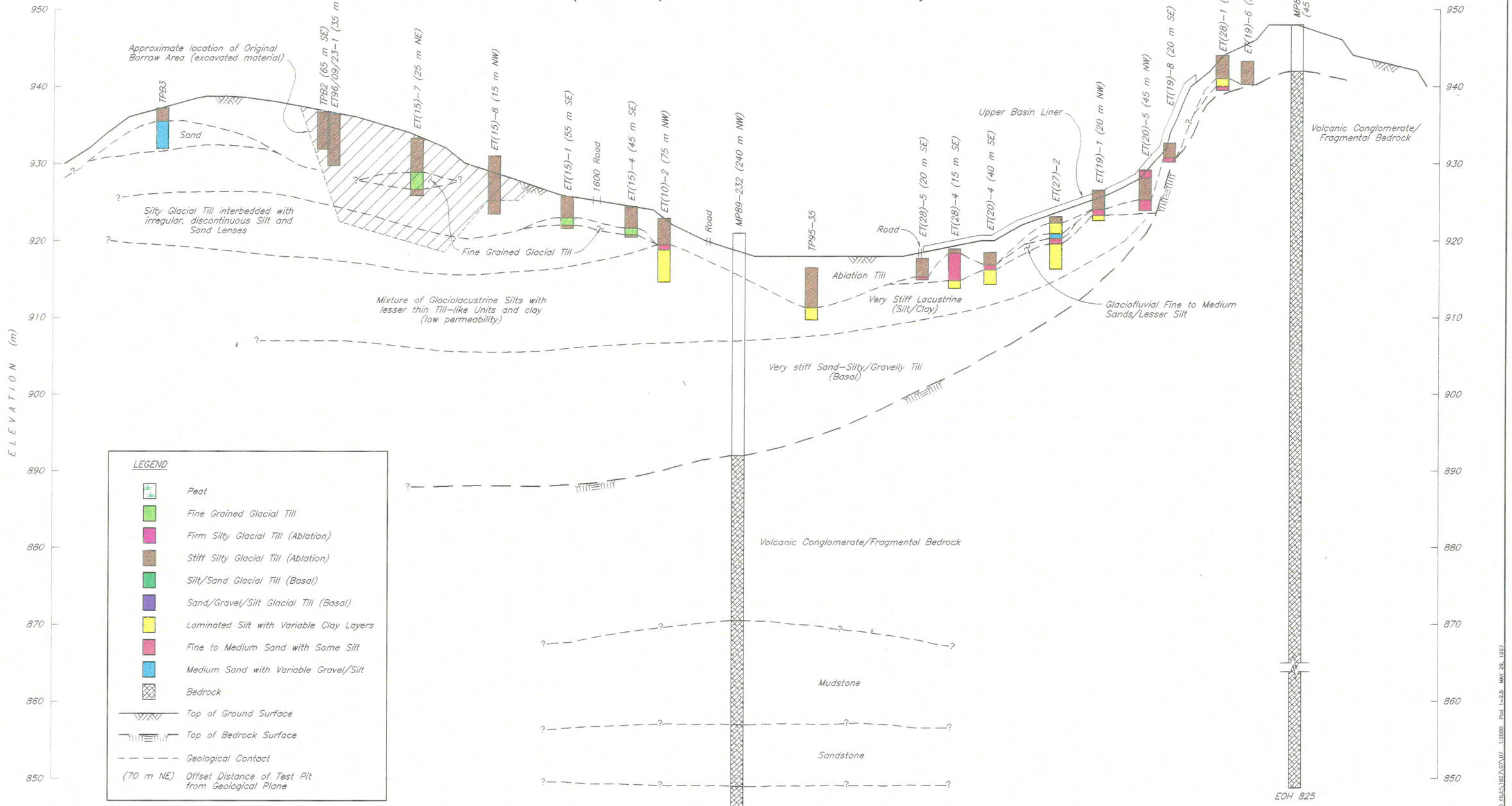
TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS SECTION 4

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.005 | REV. 0

DWG FILE:\1627\DWG\05 1:2500 Plot 1=2.5 MAY 29, 1997

(0+200 m U/S OF MAIN EMBANKMENT CENTRELINE)



LEGEND

- Peat
- Fine Grained Glacial Till
- Firm Silty Glacial Till (Ablation)
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- Silt/Sand Glacial Till (Basal)
- Sand/Gravel/Silt Glacial Till (Basal)
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- Top of Bedrock Surface
- Geological Contact
- (70 m NE) Offset Distance of Test Pit from Geological Plane

Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

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DATE	MAY 16, 1997
SCALE	AS SHOWN
DRG. NO.	1627.007
REV.	0

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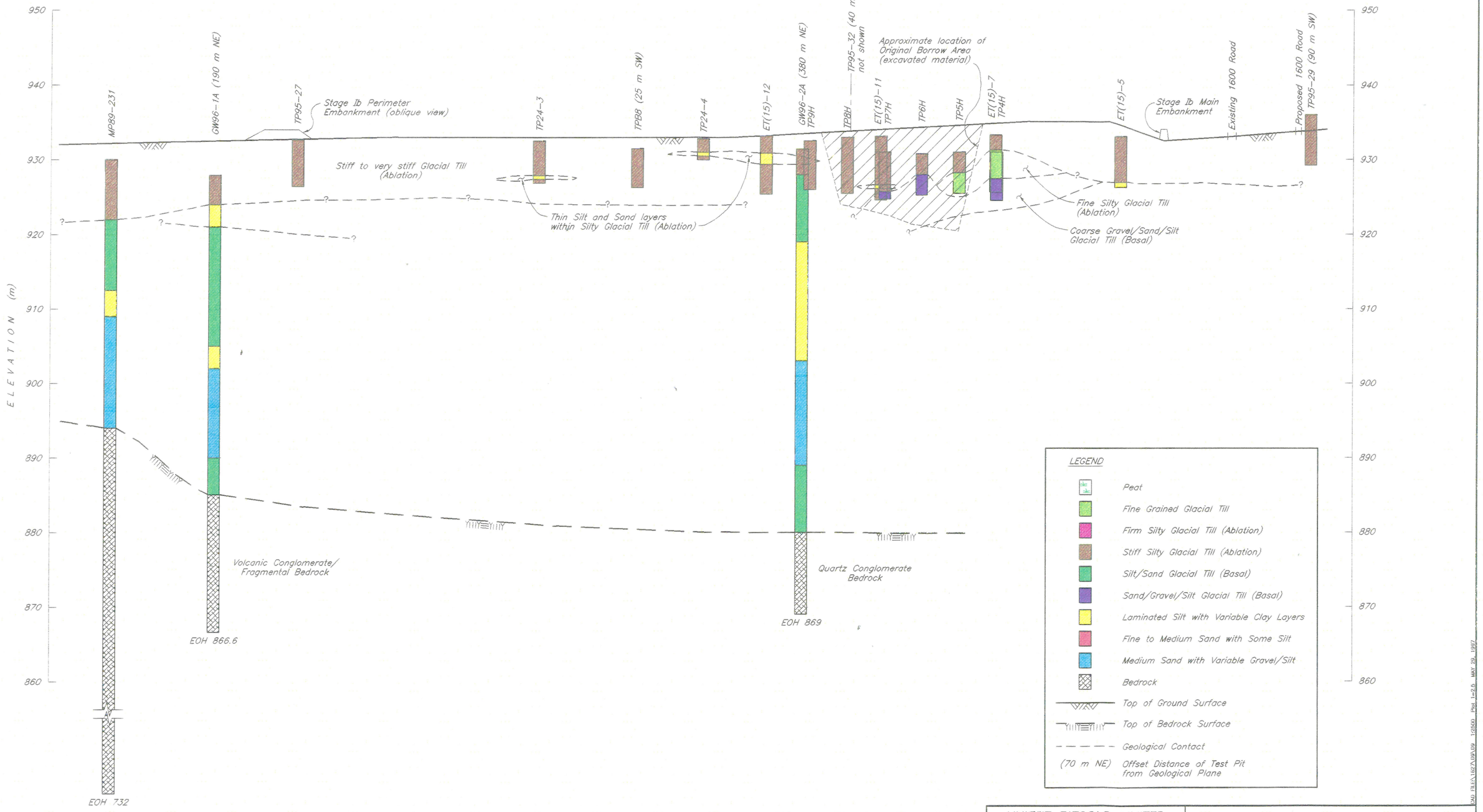
MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS SECTION 6

CAD FILES\1627\DA107 1:2500 PRS 1=2.5 MAY 29, 1997



Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION	REV.	DATE	DESCRIPTION	APPROVED
REFERENCE DRAWINGS		REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
0	MAY 30/97	ISSUED FOR UPDATED DESIGN REPORT	KB
REVISIONS			

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K.A.D. [illegible] — PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA

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DRAWN	NAR
CHECKED	WDE
APPROVED	KB

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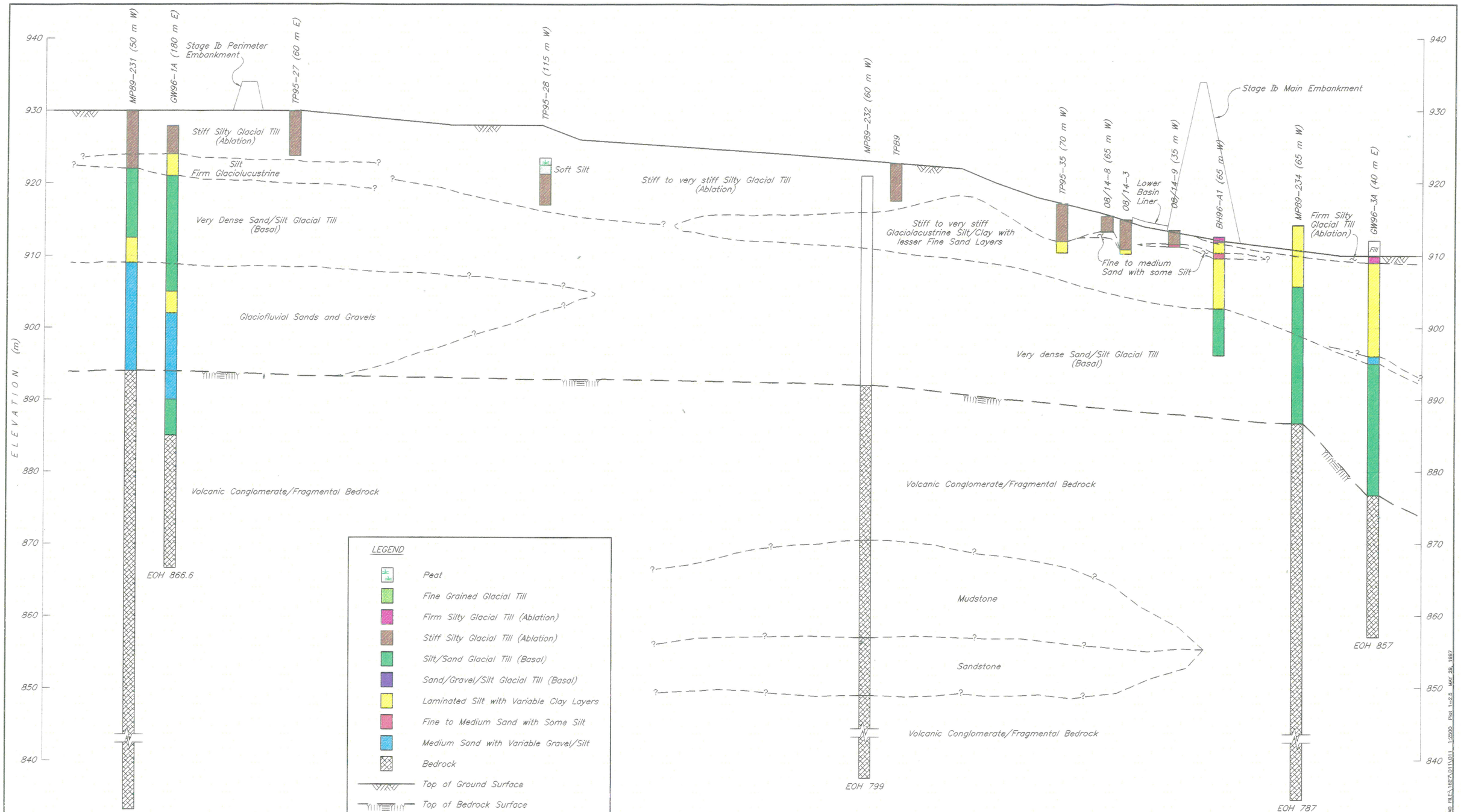
TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS SECTION 8

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.009 | REV. 0



LEGEND

- Peat
- Fine Grained Glacial Till
- Firm Silty Glacial Till (Ablation)
- Stiff Silty Glacial Till (Ablation)
- Silt/Sand Glacial Till (Basal)
- Sand/Gravel/Silt Glacial Till (Basal)
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- Top of Ground Surface
- Top of Bedrock Surface
- Geological Contact
- (70 m NE) Offset Distance of Test Pit from Geological Plane

Vert. Scale 10 5 0 10 20 Metres

Horiz. Scale 100 50 0 100 200 Metres

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV.	DATE	DESCRIPTION	APPROVED
REVISIONS			

REV.	DATE	DESCRIPTION	APPROVED
0	MAY 29/97	ISSUED FOR UPDATED DESIGN REPORT	KJB
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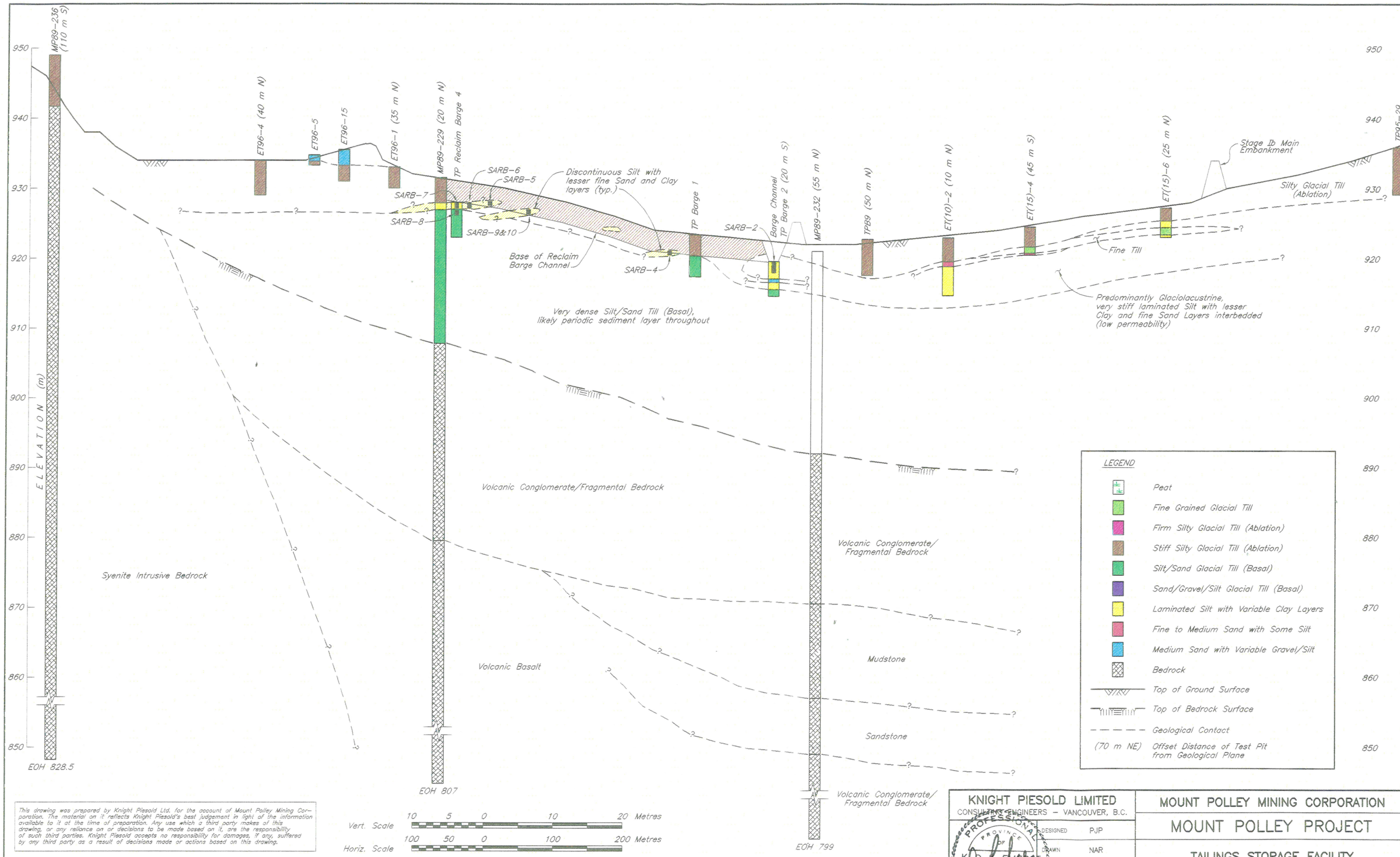
TAILINGS STORAGE FACILITY
GEOLOGICAL INVESTIGATIONS
SECTION 10

DATE MAY 16, 1997 | SCALE AS SHOWN | DRG. NO. 1627.011 | REV. 0

CAD FILE: \1627\011\011 1:2500 Plot 1=2.5 MAY 29, 1997



DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

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REVISIONS			

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DRAWN	NAR
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APPROVED	KJB
DATE	MAY 16, 1997
SCALE	AS SHOWN
DRG. NO.	1627.012
REV.	0

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY PROJECT

TAILINGS STORAGE FACILITY GEOLOGICAL INVESTIGATIONS SECTION 11

CAD FILE\ 1627\015\D12 1:2500 Plot 1=2.5 MAY 29, 1997