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October 3, 2005 Reference: F–90132

Mr. Paul Brugger
Barrick Gold Corporation
171 Copper Cliff Road East
Station F
Thunder Bay, ON P7C 5V5

2005 Tailings Dam Examination
Cullaton Lake Gold Mine, Nunavut
Licence NWB1CUL020

Dear Sirs:

Further to your authorization, we have carried out a visual examination of the tailings impoundment facility at the above noted site. The attached Dwg. No. 1 in Appendix A, (January 30, 1995) illustrates the general layout of the facility.

As requested by the Nunavut Water Board in a letter to Barrick dated June 9, 2004, commenting on the 2003 Tailings Dam Examination report, we have restructured the report to include a brief history and summary of previous inspection concerns. The 2004 report was similarly structured.

Historical Summary

The site of the Cullaton Lake Gold Mine is located in Nunuvut at 61^{o} 16' north latitude and 98^{o} 30' west longitude. The site is geographically located relative to the following communities:

- 670 km north of Thompson, Manitoba
- 250 km west of Arviat, N.W.T.
- 416 km south of Baker Lake, N.W.T.
- 416 km northwest of Churchill, Manitoba

The site is at the tree line and in the zone of discontinuous permafrost.

Access to the property is normally gained by charter air flights from Thompson or Churchill, Manitoba to the 1460 m gravel airstrip located north of the mill site.

The mine site area features undulating terrain with shallow surficial soils overlying bedrock. The surficial deposits consist mainly of a bouldery glacial till with localized surface organic deposits. The soil matrix of the glacial till is a well-graded, silty sand with no clay to traces of clay (i.e., exhibit little or no plasticity).

The Cullaton Lake Gold Mine's construction and mill startup of a 300 tonnes per day complex was completed in early fall of 1981 with its first gold pour in December

1981. Total gold produced from the B-Zone and the Shear Lake zones to August, 1985 was over 100,000 ounces; when, for economic reasons, it was decided to put the property on temporary closure on a care-and-maintenance basis. The property has remained closed since September 1985.

Based on the mill records, a total of 373,000 tonnes of ore was processed, of which approximately 150,000 tonnes came from the B-Zone with the balance of 223,000 tonnes coming from the Shear Zone. Laboratory analyses previously showed that the tailings from the B-Zone have a relatively high acid generation potential; however, there was no evidence, either physical or chemical, that acid drainage had been taking place within the tailings impoundment area. This lack of effect was attributed to three main factors:

- the majority of the tailings are either submerged below water and/or saturated, such that there is a lack of oxygen required for oxidation
- the tailings are frozen for about eight months of the year, and when thawed, only near the top. This and the fact they remain saturated, limits water movement through the tailings, with resulting limited oxidation
- the acid kinetic reaction from the tailings impoundment becomes substantially diluted and is not detectable in the surrounding environment.

The principal concern of the Water Board, with respect to abandonment of the tailings impoundment facility, was the potential generation of acidic drainage. As part of the closure plan[1], the objectives were to minimize acid generation by:

- maintaining water cover over the tailings within the pond to prevent access by oxygen
- placement of cover material over the exposed tailings to reduce access by oxygen
- maintaining of the remaining tailings in a frozen state (permafrost), by thickening the cover material.

The homogeneous tailings dams were constructed in the late 1970s or early 1980s (presumably) with local silty sand and gravel till (there are no construction records). Maximum dam height was about 5.5 m above original ground. The dams included filter fabric and synthetic impermeable liners on the upstream faces.

The following inspections of the tailings dams and ponds have been performed and reported on by Trow since the preparation of the Closure Report. Note that ownership of the property has changed over the years. These reports should be on file with the Water Board and with Barrick.

[1] Abandonment and Restoration Plan, Cullaton Lake Gold Mines Ltd. Reference No. F-90132-A/E. May 7, 1991. Prepared for Corona Corporation by Trow Consulting Engineers Ltd.

August 1992 Inspection – Reported to Homestake Canada Ltd. (March 15, 1993)

The attached Drawings, No. 1 to 4 (Appendix B), are reproduced from the 1992 inspection report and serve to illustrate the conditions at the time. Observations with respect to the tailings impoundment included:

- the Pond No. 1 spillway exceeds the design requirements (wider channel and flatter slopes) given in the Closure Plan and was constructed with non-woven filter fabric on the cohesionless subgrade soil and covered with a rubber liner and about a 300 mm thick layer of graded waste rock
- a few minor seeps were observed on the downstream side of Dam No. 1
- no recommendations were made other than to conduct a detailed site survey.

June 1994 Inspection – Reported to Homestake Canada Ltd. (February 1, 1995)

A detailed survey of the tailings impoundment area and structures was completed. Observations with respect to the tailings impoundment included:

- the pond elevations of Pond No. 1 and No. 2 were 94.0 m and 89.4 m, respectively
- no seepage evidenced on the downstream side of either dam
- spillways in good condition
- dams appear stable
- no evidence of exposed tailings in Tailings Area No. 1
- no recommendations were made

September 1996 Inspection – Reported to Homestake Canada Ltd. (November 27, 1996)

Observations with respect to the tailings impoundment included:

- the tailings dams are presently stable, and in good condition with no signs of distress or erosion
- although there were a few wet areas near the downstream toe of Dam No. 1, no seeps were visible; wetness may have been due to recent rainfall accumulations
- the water level in Pond No. 1 was the same as it was in 1994
- there were no exposed tailings in the area
- it was recommended that some minor repair work be undertaken to address the exposed liner at the Dam No. 1 spillway, and that damaged and exposed sections of liner be removed from Dam No. 2.

July 1999 Inspection – Reported to Homestake Canada Ltd. (October 13, 1999)

Observations with respect to the tailings impoundment included:

- some small erosion scars were observed on both upstream and downstream sides of Tailings Dam No. 1, likely due to erosion of the previously flattened slopes
- upstream and downstream slopes of about 3H:1V and 6H:1V, respectively, and crest width varies up to 15 m
- Pond No. 1 level about 93.7 m, slightly lower than the 94.0 m of previous inspections
- no unsubmerged tailings observed
- no seepages observed at either dam
- both dams considered stable
- no recommendations were made

July 2001 Inspection – Reported to Homestake Canada Ltd. (February 6, 2002)

Observations with respect to the tailings impoundment included:

- similar observations as in 1999, except Pond No. 1 water level was about 0.3 m higher at elevation 94.0, similar to previous years.
- no recommendations were made

July 2003 Inspection – Reported to Barrick Gold Inc. (October 15, 2003)

- similar observations as in 2001
- the erosion scars previously identified appear to be naturally revegetating and self-armouring with larger rock particles from the dam fill
- the weir in the Dam No. 1 spillway had been removed subsequent to the 2001 inspection
- no recommendations were made

July 2004 Inspection – Reported to Barrick Gold Inc. (February 9, 2005)

- similar observations as in 2003
- the erosion scars previously identified appeared to be continuing to revegetate naturally and to self-armour with larger rock particles from the dam fill
- a recommendation to repair the rubber liner and restore the design configuration of the base of the Dam No. 1 spillway channel was made.

Current Inspection - August 2005

The field examination was carried out by Mr. Demetri Georgiou, P.Eng. on August 2 and 3, 2005.

Photos 1 and 2, attached, show oblique views of the site taken from the air on the second day of the site examination, August 3, 2005. The tailings area had been previously covered with local till as reported in Trow's previous inspection reports. Vegetation on the till covered tailings is small and sparse. However, it is noted that the density of the vegetation is increasing gradually, based on the comparative visual observations of previous years.

Tailings Dam No. 1

Photos 3 and 4 show views of Dam No. 1. Typically, the embankment, which is constructed principally with local cohesionless till, is irregular in section and surface grade. Average side slopes of the upstream and downstream sides were typically about 3H:1V and 6H:1V, respectively. The downstream side was estimated to be as steep as about 3H:1V in a few areas. The dam height ranges up to about 4 m. Some small erosion scars were observed on both the upstream and downstream sides; however, as described below, they appear to be stabilizing with vegetation and self-armouring with larger rock particles from the till and previously placed mine waste rock. These scars do not appear to be increasing in size, based on visual comparisons of previous years. The crest width varies but is in the order of 15 m. No seepages were observed on the day of inspection; however, this could not be confirmed since it had been raining quite heavily on the inspection dates and considerable water was ponded in localized depressions at the downstream toe of the dam.

Within the tailings pond itself, no unsubmerged or exposed tailings were observed. Photo 5 shows submerged tailings in the pond.

Photo 6 shows a view of the Dam No. 1 spillway channel. Flow was occurring over the spillway, to a depth of up to about 100 mm, as can be seen in Photo 6. This is slightly more than had been observed in previous years, due to the heavy rain experienced during this inspection period.

Portions of the rubber liner in the spillway channel were exposed, as observed in previous years. No repairs had been made subsequent to the recommendation of 1996, as indicated in the 2004 report. We have not observed any noticeable change in the spillway channel configuration since this was identified.

It was the intent of Barrick to facilitate repairs to the liner and spillway channel during this season's site visit, based on the recommendation made by Trow in the 2004 report. However, it is understood that last-minute logistical issues (equipment and fuel availability problems) prevented the mobilization and use of the planned power excavating equipment. Notwithstanding, some limited repairs were performed. Fine rockfill, from about 25 mm up to about 75 mm in particle size, was manually scavenged from local waste stockpiles and elsewhere across the site. This material was hauled in a small trailer pulled behind one of the ATVs that was brought to the site. The fine rockfill was manually placed in the spillway channel to cover the rubber liner, where exposed. In some areas, up to about 100 mm of material was placed and was spread as evenly as possible across the spillway channel. Photo 7 shows an area where this rockfill was placed. Since there was a lack of excavating equipment and only limited labour, no attempt was

made to excavate and restore the channel subgrade. Attempting to do so manually without the necessary power equipment, manpower and granular material stockpiled at the spillway site may have compromised the spillway channel and created irreparable problems.

The placement of this small amount (height) of rockfill will change the hydraulics of the spillway an insignificant amount, given the width of the channel and the available freeboard (which remains about 1 m).

Notwithstanding, we expect that this repair should suffice for the short term, at least, and it will be monitored over future inspections. Should erosion be observed, the repairs previously recommended should be undertaken.

Based on the current as well as previous inspections and involvement with the project, the dam is not in any distress and is considered to be stable.

Tailings Dam No. 2

Photo 8 shows a view of Dam No. 2. As with the No. 1 dam, the principal construction material is local cohesionless till. The dam section and surface grade is irregular, although less so than Dam No. 1. The crest width varies but is in the order of 15 m. No seepages were observed on the day of examination, although the rainy weather prevented such observations. Photos 9 and 10 show upstream and downstream views of the Dam No. 2 spillway channel. Based on our 2005 as well as previous inspections and involvement with the project, the dam is not in any distress and is considered to be stable.

Additional Work

During the 2005 inspection visit, topographic surveying of two areas was performed. The first was of the encapsulated waste rock stockpile at the Shear Lake site. The purpose was twofold: to provide documentation relative to as-built conditions and to determine the direction of surface water runoff from the pile.

The second area surveyed was at the former tailings site. Surveying was performed to measure the ground surface elevations at the four thermistor string locations and to provide topographic information at the Dam No. 1 spillway site.

The results of the surveys will be provided under separate cover.

Summary

Based on the visual inspections that Trow has performed between 1992 and 2005, it is considered that no erosional or other detrimental forces have diminished the integrity of the tailings dams at the Cullaton Lake Mine. The dams should continue to serve their intended functions of providing storage and water cover for the tailings in Pond No. 1 long into the future.

It is recommended that the condition of the Dam No. 1 spillway channel be monitored for erosion and if any is apparent, that the rubber liner in the Dam No. 1 spillway be repaired and restored to its original design configuration, to ensure that it is recovered with the appropriate rip-rap, such that erosion of the subbase does not occur.

We trust that this letter is sufficient for your current requirements. Should you require clarification of some point, please contact the undersigned.

Yours truly,

Trow Associates Inc.

Prepared by:

[Original signed by]

Demetri N. Georgiou, MASc., P.Eng.
Branch Manager/Principal Engineer

Reviewed by:

[Original signed by]

Robert B. Dodds, Ph.D, P.Eng.
Consulting Engineer

Attach: Photographs
Appendix A
Appendix B

PHOTOGRAPHS

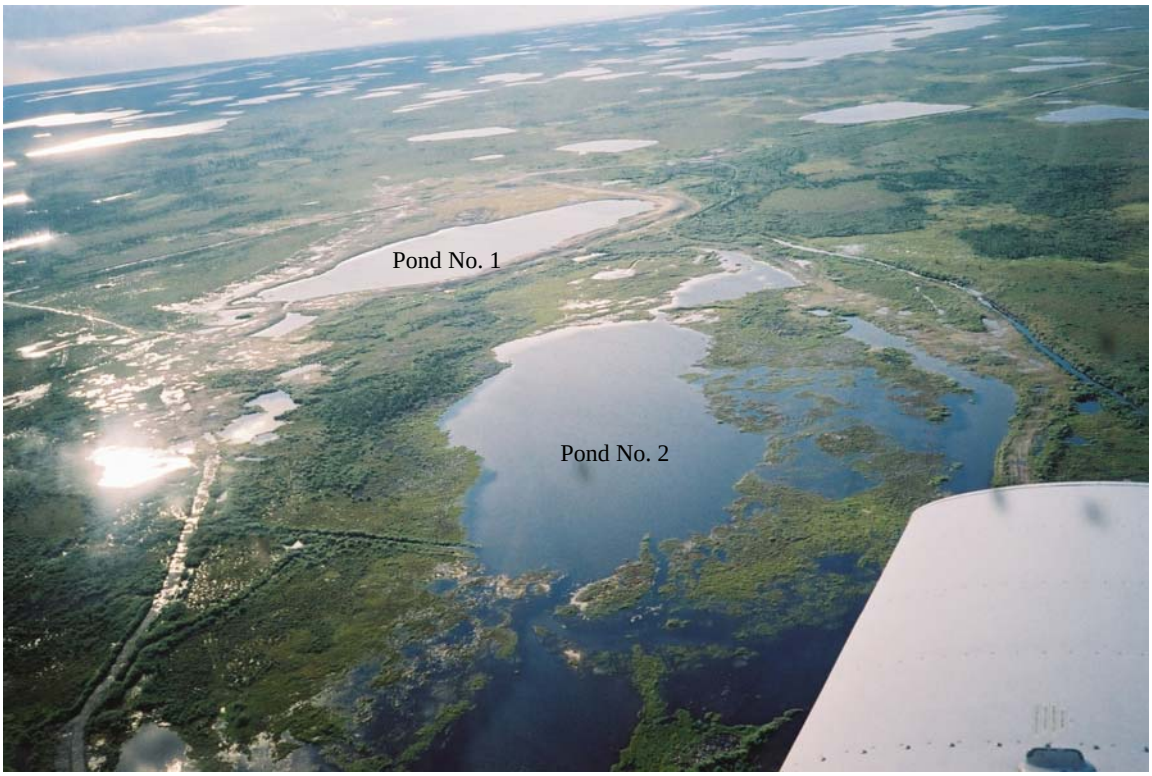


Photo 1: Tailings facility – looking northwest

Photo 2: Tailings facility looking southwest

Photo 3: Dam No. 1 - looking northeast

Photo 4: Downstream section of Dam No. 1

Photo 5: Edge of submerged tailings in Pond 1

Photo 6: Dam No. 1 Spillway looking downstream

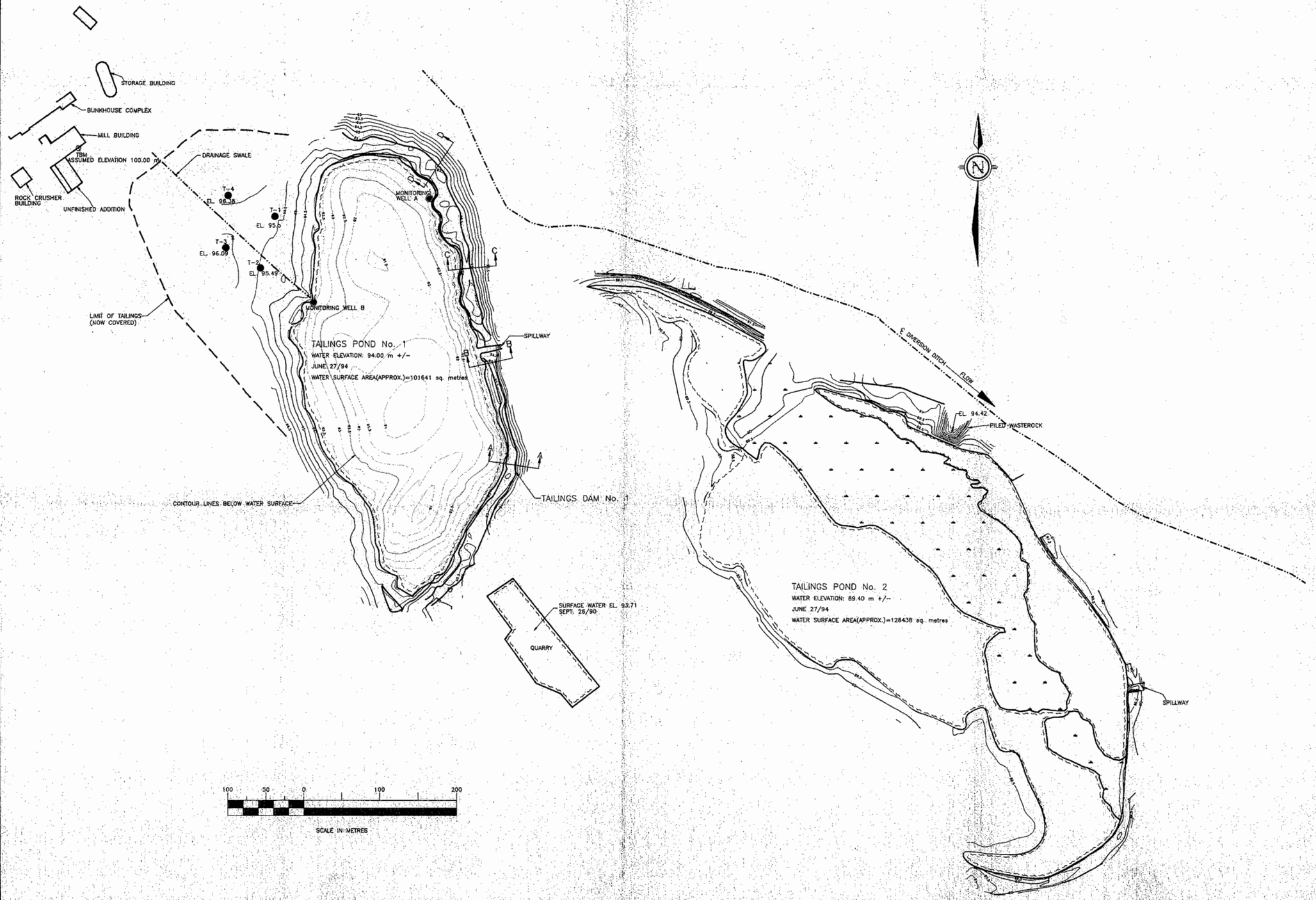
Photo 7: Dam No. 1 Spillway showing new fill at channel entrance

Photo 8: View of Dam 2 looking south-southeast

Photo 9: Dam No. 2 Spillway looking upstream to Pond No. 2

Photo 10: Dam No. 2 Spillway looking downstream

APPENDIX A



TROW CONSULTING ENGINEERS LTD.
Thunder Bay, Ontario, Canada

LEGEND

- MONITORING WELL
- BENCHMARK
- THERMOSTERS

NOTES:

1. DATA INTERPRETED FROM TROW ENGINEERING SURVEY(JUNE 27/94) AND SURVEY BY H.I.W. SURVEYS LTD.(NOV. 10/90)
2. BENCH MARK IS LOCATED ON CONCRETE SLAB AT NORTH EAST CORNER OF MILL BUILDING. ASSUMED ELEVATION: 100.00m
3. ALL ELEVATIONS ARE SHOWN IN METRES.

REVISIONS

No.	Date:	Revision

Client: HOMESTAKE CANADA

Project: CULLATON LAKE MINE CLOSURE

Title: TAILINGS POND SURVEY
CULLATON LAKE, N.W.T.

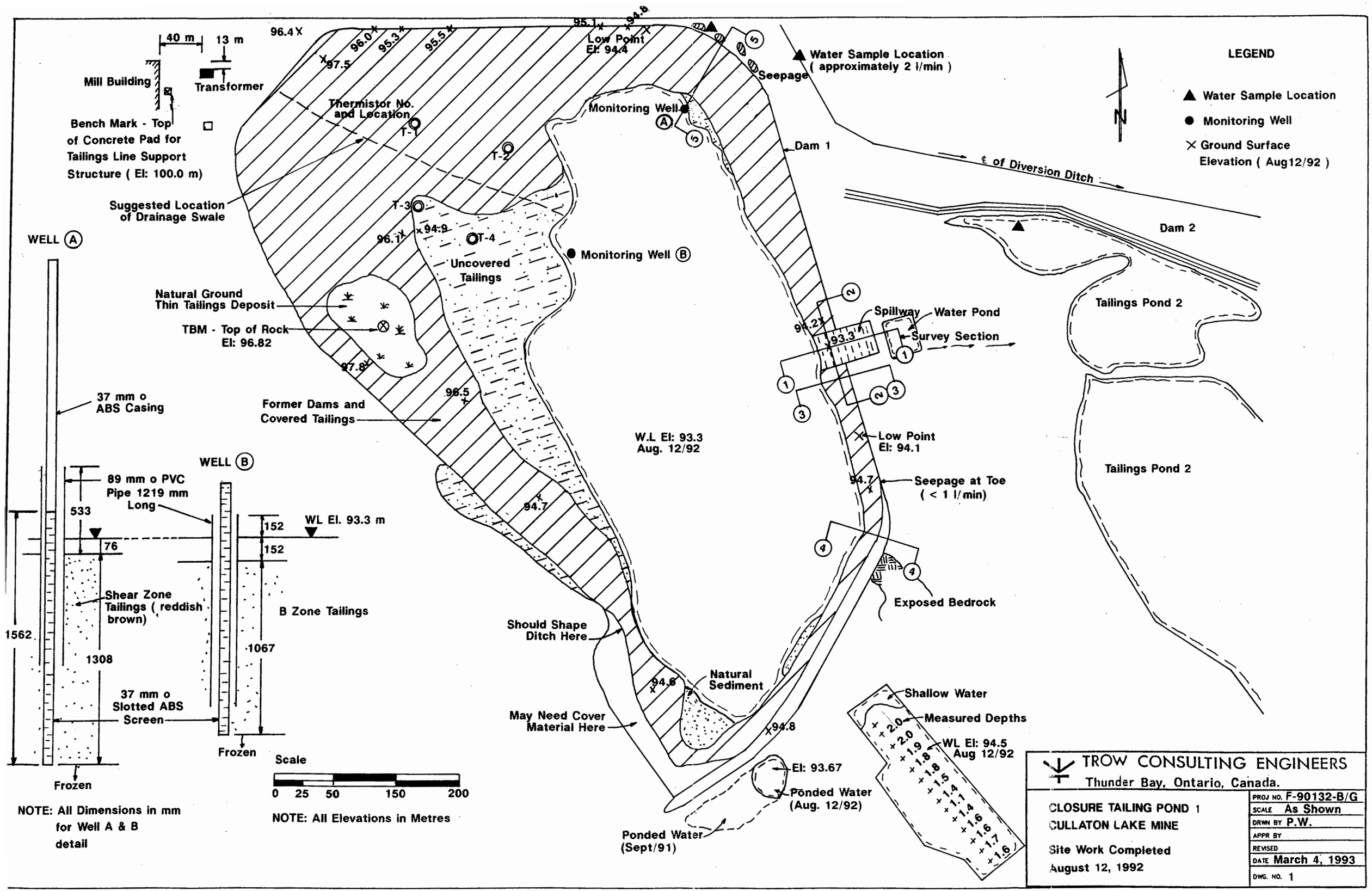
Project No.	Dwg. No.:
F-90132-A/G	1

Drawn By:	Reviewed By:
PW/DT	DK

Date: JANUARY 30, 1995

Scale: 1 : 2500

APPENDIX B



NOTE: All Dimensions in mm for Well A & B detail

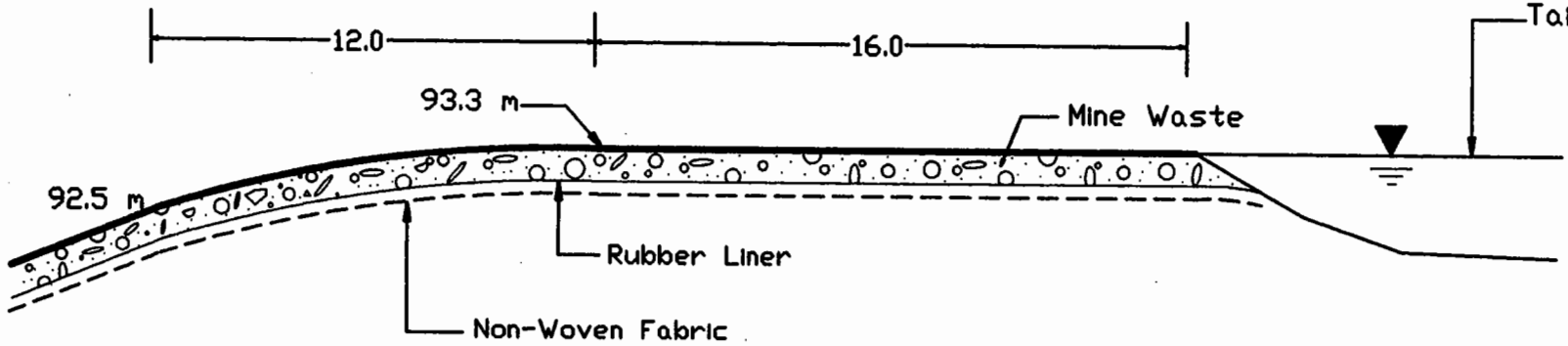
NOTE: All Elevations in Metres

TROW CONSULTING ENGINEERS
Thunder Bay, Ontario, Canada.

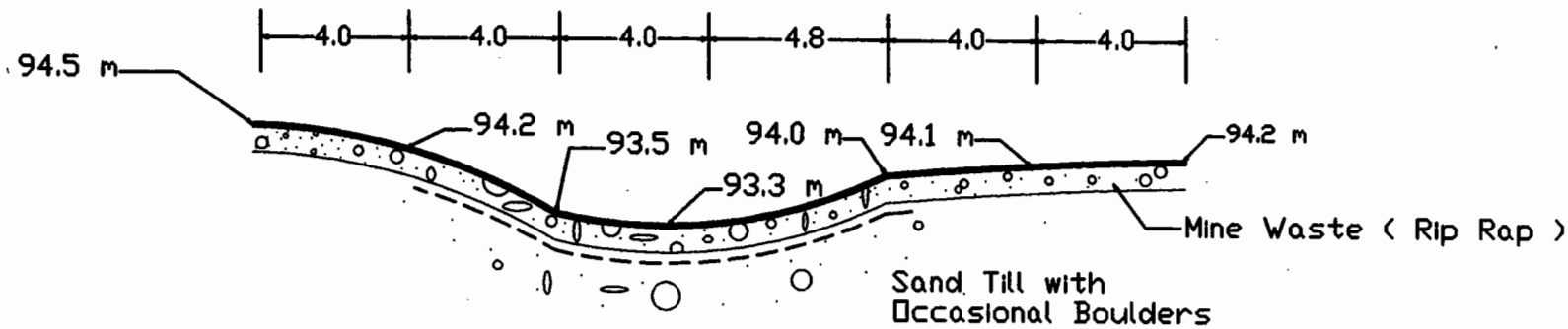
CLOSURE TAILING POND 1
CULLATON LAKE MINE

Site Work Completed
August 12, 1992

PROJ NO.	F-90132-B/G
SCALE	As Shown
DRWN BY	P.W.
APPR BY	
REVISED	
DATE	March 4, 1993
DWG. NO.	1

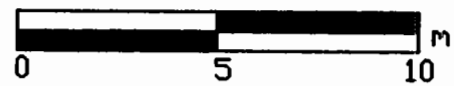


SECTION 1 - Longitudinal (Looking South)



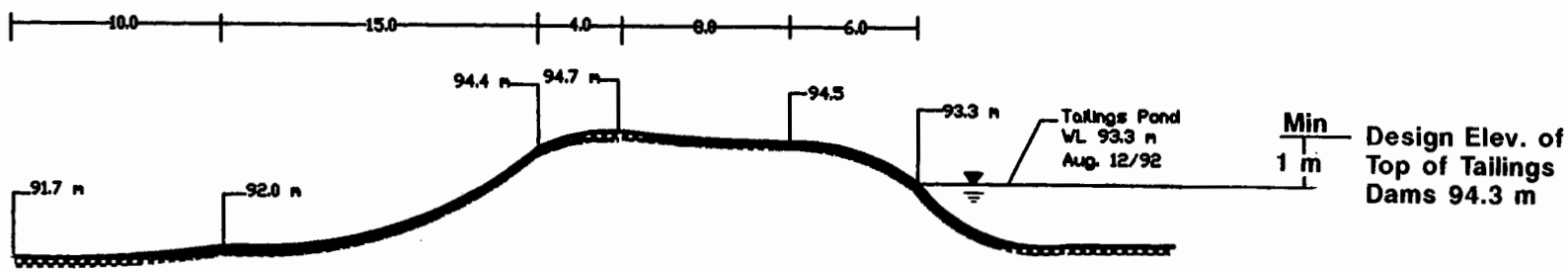
SECTION 2 _ Transverse (Looking East)

Vertical N.T.S.
Horizontal Scale

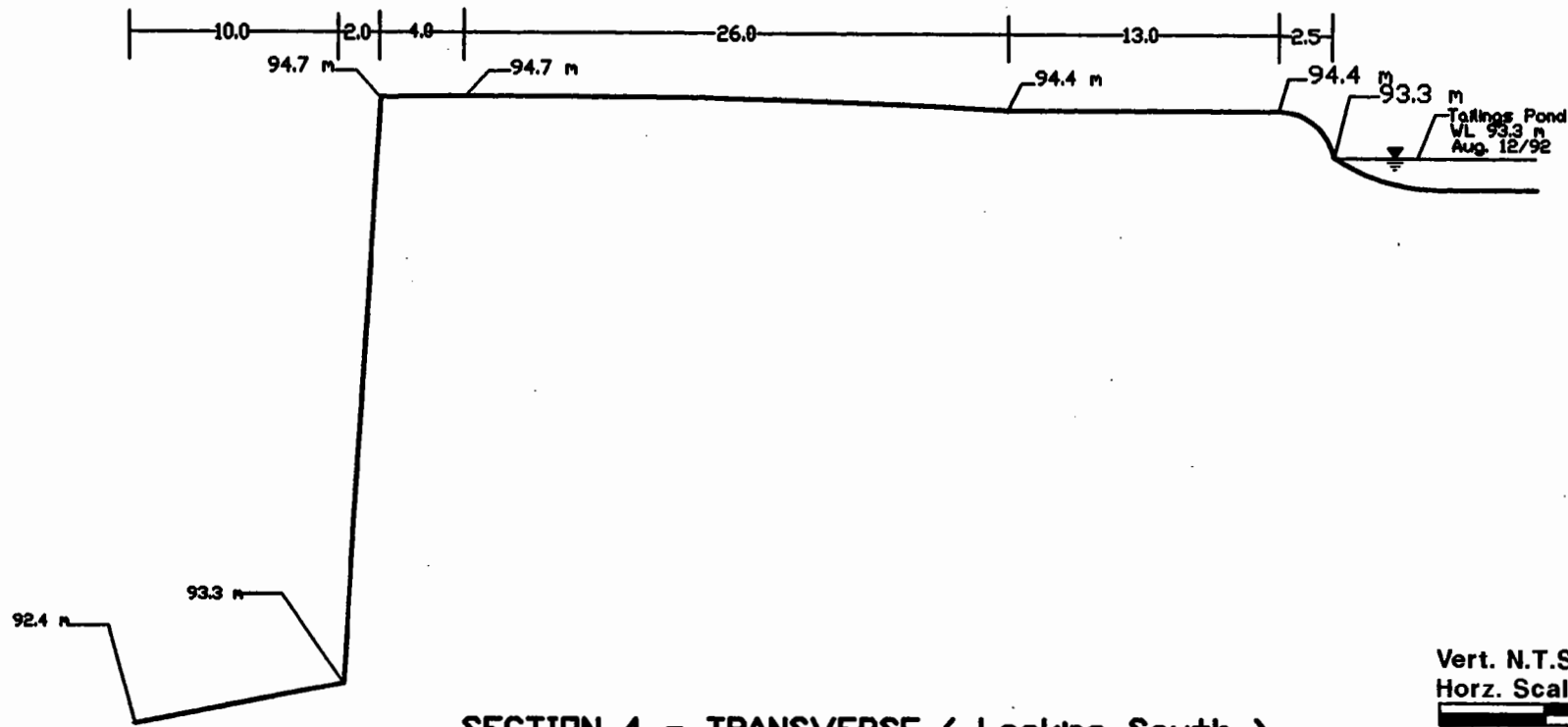


Reference No. F-90132-A/G

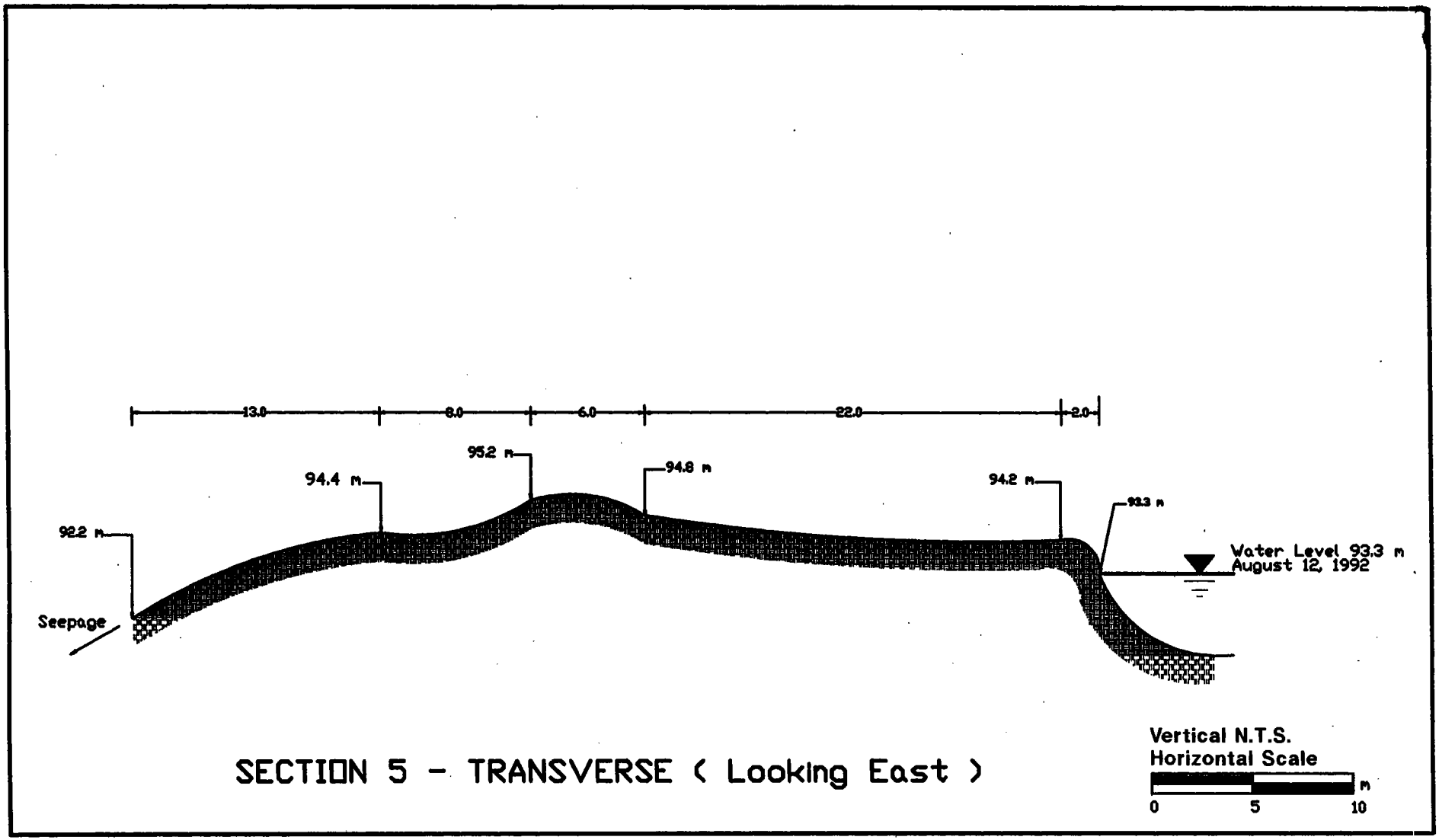
Drawing No. 2



SECTION 3 - TRANSVERSE (Looking South)



SECTION 4 - TRANSVERSE (Looking South)



SECTION 5 - TRANSVERSE (Looking East)