DACW33-85-D-0010

FINAL REPORT

SLOPE INCLINOMETER MONITORING AND DATA MANIPULATION AT BALL MOUNTAIN DAM JAMAICA, VERMONT

U.S. Army Corps of Engineers
New England Division

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Prepared for

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Project 86934

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1. INTRODUCTION

1.1 Purpose

This report presents the final results obtained from reading six slope inclinometers installed to monitor embankment slope movements at Ball Mountain Dam in Jamaica, Vermont.

1.2 Scope

The scope of work performed for this study was as follows:

a. Provide an engineer and a technician to furnish on--site readings of six slope inclinometers at Ball Mountain Dam. A total of 12 readings, including an initial set of readings, have been taken to date.

b. Reduce the field data and present results in graphical and tabular form. Submit the results to the New England Division, Corps of Engineers (NED-CE).

c. Provide a final engineering report containing the scope of the investigation, field data, results in graphical and tabular form, summary of daily activities, safety reports, and survey drawings.

1.3 Authorization

This study was authorized by Lt. Col. Edward D. Hammond of the NED-CE in the contract for Delivery Order No. 7 for Contract No. DACW33-85-D-0010 dated March 10, 1986.

1.4 Project Personnel

The following personnel at GEI Consultants, Inc. were involved with the monthly on-site visits, reducing field data, and preparation of this report:

Principal-in-Charge	Ronald C. Hirschfeld, P.E.
Project Manager	Stephen L. Whiteside, P.E.
Engineer	Stephen J. Sarandis
Engineer	Paul G. Costello

2. SITE AND PROJECT DESCRIPTION

Ball Mountain Dam is located on the West River in Jamaica, Vermont (see Fig. 1). It is a unit of the Connecticut River Basin flood control plan. The dam is located about 29 miles upstream of the confluence of the Connecticut and West Rivers at Brattleboro, Vermont. It is 9.5 miles upstream of the Townshend Flood Control Dam. Construction of the dam was completed in 1961.

A plan and cross section of the dam are shown in Figs. 2 and 3, respectively. The dam is a rockfill and earthfill embankment with a concrete spillway and a low-level-outlet tunnel in the right abutment. The embankment is 915 feet long and has a maximum height of 265 feet. The dam crest elevation is 1052 feet Mean Sea Level (MSL), and the crest width is 20 feet. The downstream slope of the embankment is 1.75H:1V. The upstream slope of the embankment is 2H:1V above El. 1017 (MSL) and 2.5H:1V below El. 1017 (MSL).

The embankment dam consists of a central rolled glacial-till impervious core with rockfill protection on the upstream slope and a rockfill downstream shell. There are gravel filter layers between the impervious core and the upstream and downstream rockfill and between the downstream rockfill shell and the underlying foundation soils. To reduce seepage beneath the dam, there is a compacted glacial-till cutoff under the impervious core extending to glacial till in the valley and to bedrock in the abutments. In addition, there is a grout curtain in the bedrock in the abutments.

There is an apparent bulge on the downstream slope about 175 feet downslope of the crest extending the entire length of the downstream slope between the abutments at approximately constant elevation and profile. Several areas along the downstream edge of the crest have settled relative to the upstream edge. We understand that differential crest settlements of up to 2 feet have occurred since the dam was completed in 1961. The settled crest areas have been periodically regraded with backfill.

Six slope inclinometers were installed at Ball Mountain Dam between October 1985 and January 1986 to monitor embankment movements in the downstream shell. An initial set of readings of the six slope inclinometers was taken on January 23 and January 24, 1986. Monthly readings of the six slope inclinometers were started on April 1, 1986. This

report contains the results of 11 monthly readings obtained from April 1986 to November 1987.

3. METHODS OF OBTAINING AND REDUCING FIELD DATA

3.1 General

The SINCO Digitilt Inclinometer system is used to monitor embankment slope movements at Ball Mountain Dam. This system consists of four separate units: the borehole sensor, the digital indicator, the interconnecting electrical cable, and the PVC guide casing. Field data obtained using the SINCO Digitilt Inclinometer System are then reduced and plotted using the computer program GEOSIN developed by Geocomp Corp. of Sudbury, Massachusetts.

3.2 Field Measurements

The following equipment and procedures are used to read the slope inclinometers at Ball Mountain Dam:

a. Equipment

(1) Borehole Sensor - SINCO Digital Sensor, Model No. 50325

(2) Digital Indicator - SINCO Digital Indicator, Model No. 50309

(3) Electrical Cable - The cable is 0.42-inch-O.D. with six multiple-strand copper conductors insulated with neoprene coating.

(4) Guide Casing - 2.75-inch-I.D. ABS telescoping slope inclinometer casing

b. Procedure

The slope inclinometer guide casing was installed in six boreholes in the downstream slope of Ball Mountain Dam between October 1985 and January 1986. (See Fig. 2 for slope inclinometer locations). The guide casing was installed from the embankment surface to about El. 910 feet (MSL) in each borehole. (See Fig. 3 for cross section of dam.) The slope inclinometer guide casing was installed to about El. 910 feet at which we estimated the bottom of each guide casing would be below the zone of potential movement. Deflection measurements were referenced to the bottom of the slope inclinometer guide casing which was assumed to be stationary.

To read each slope inclinometer, we connected the borehole sensor to the digital indicator with the electrical cable and lowered to the bottom of the casing. The sensor was kept at the bottom of the casing for about 10 minutes to allow the temperature of the probe to stabilize. The borehole sensor was then raised to the nearest even foot mark and the first reading taken. Readings were then taken at 2-foot intervals as the sensor was raised up the casing until the top of the slope inclinometer guide casing was reached. After completion of one set of readings, the borehole sensor was rotated 180° and lowered back to the bottom of the casing and the procedure repeated. Rotating the sensor 180° and taking another set of readings were done to reduce errors associated with casing irregularities, depth measurements and the borehole sensor. With a two-man team, it took approximately 1.5 hours to read each slope inclinometer at Ball Mountain Dam.

A level survey was performed during each site visit. The elevation of the top of each inclinometer casing was checked to ensure that the depth of each new set of inclinometer readings was referenced to the same elevations as previous sets. With a two-man team, it took approximately 2 hours to perform the level survey.

3.3 Data Reduction

The computer program GEOSIN was used to reduce and plot field data obtained from reading the slope inclinometers at Ball Mountain Dam. The program runs on an IBM PC/XT computer, and the plots were generated on a Hewlett Packard 7475A plotter. The program subtracts the initial set of readings from subsequent readings to obtain horizontal movements of the guide casing. The computer program provides output in both graphical and tabular form. Two sets of field readings were reduced and plotted by hand to check the results obtained from the computer program.

4. DISCUSSION OF RESULTS

4.1 General

Plots of the deflections measured in the six slope inclinometers at Ball Mountain Dam are presented in Figs. 4 through 27. The second set of readings, taken in April 1986, is used as the initial set of readings for all the plots. The first set of readings, taken on January 23, 1986, is not used as the initial set of readings because it is our opinion that some of the deflection that was measured between January 1986 and April 1986 can be attributed to the slope inclinometer casings stabilizing in the borehole.

Figures 4 through 15 present the results of readings taken from May 13, 1986 to November 8, 1986. Figures 16 through 27 present the results of readings taken from November 8, 1986 to November 18, 1987. The results obtained from reading the six slope inclinometers are presented in two sets of summary plots to make it easier to detect deflections in individual readings and to highlight deflections measured before and after the April 1987 flood. During this flood the reservoir reached the highest level in the history of the dam, and water flowed over the spillway for the first time.

Figures 28 and 29 are summaries of the horizontal deflections measured in the inclinometers within 0 to 2 feet below the dam surface during the period from April 1986 to November 1987. Figure 28 shows deflections measured in the direction perpendicular to the dam axis, and Figure 29 shows deflections measured in the direction parallel to the dam axis. Also plotted on the figures is the variation in the reservoir elevation during the same time period.

4.2 Summary of Readings

All the deflections in the inclinometers from April 1986 to November 1987 are small. The highest total deflection was 0.9 inch measured at the dam surface in SI-85-3 in the downstream direction.

All the inclinometers except SI-85-3 showed negligible deflections in the readings taken from April 1986 to November 1986. As shown in Figs. 8 and 28, SI-85-3 showed some downstream deflection over the entire depth of the inclinometer in the readings taken in June and July 1986 but no deflections during the remainder of 1986. The June and

July readings may reflect continued stabilization of the inclinometer casing.

All the inclinometers except SI-85-4 showed measurable downstream deflections in the May 1987 readings taken after the April 1987 flood. The three inclinometers located near the crest of the dam (SI-85-1, SI-85-3, and SI-85-5) showed movement in the rockfill extending from about the downstream edge of the impervious core to the dam surface. SI-85-1 and SI-85-5 showed some rebound toward the upstream in subsequent readings, but SI-85-3 has shown continued downstream movement during the subsequent readings (Fig. 28). All three inclinometers showed some permanent offset at approximately the elevation of the downstream edge of the core.

SI-85-2 and SI-85-6, located downslope from SI-85-1 and SI-85-5, respectively, showed some downstream deflection after the April 1987 flood, extending from about El. 940 to the dam surface. SI-85-2 rebounded after the May 1987 readings, but SI-85-6 has showed continued movement.

SI-85-4 has only shown shallow downstream deflections during 1987 in a zone extending about 8 to 10 feet below ground surface.

Detailed descriptions of the measured deflections for each inclinometer are given in the next section.

4.3 Detailed Description of Inclinometer Deflections

As shown in Fig. 29, the measured deflections were all small in the direction parallel to the dam axis. Therefore, detailed descriptions of only the deflections perpendicular to the dam axis are given below.

SI-85-1 and SI-85-2 both showed negligible movements during 1986 as shown in Figs. 4 and 6. The readings taken in SI-85-1 in May 1987 after the April 1987 flood showed a downstream deflection of about 0.15 inch extending from about El. 990 to the dam surface (Fig. 16). The movement increased to about 0.30 inch in June 1987. The subsequent readings showed a rebound at the ground surface to about the same point as the pre-flood measurements. However, there was a net permanent deflection of about 0.15 inch at about El. 990. Based on observations made during the slope inclinometer installation, it appears that the downstream edge of the impervious core may be near El. 990 at the location of SI-85-1.

SI-85-2 had a downstream deflection of about 0.5 inch downstream at the dam surface between November 1986 and May 1987. The May 1987 plot in Fig. 18 shows deflections starting at about El. 935 and extending to the dam surface. Subsequent readings show some rebound with about 0.25 inch deflection at the dam surface in November 1987.

SI-85-3 showed apparent downstream movement over its entire depth during 1986. The movement reached about 0.35 inch at the dam surface. The trend in the movements indicates that the movements may be due to stabilization of the inclinometer casing. After the April 1987 flood, deflections occurred from about El. 995 to the ground surface. Deflections have been increasing since May 1987, reaching a total of about 0.9 inch at the ground surface in November 1987. The net change in deflection from November 1986 to November 1987 is about 0.55 inch. As with SI-85-1, the elevation where movement is indicated (El. 995) is near the downstream edge of the impervious core.

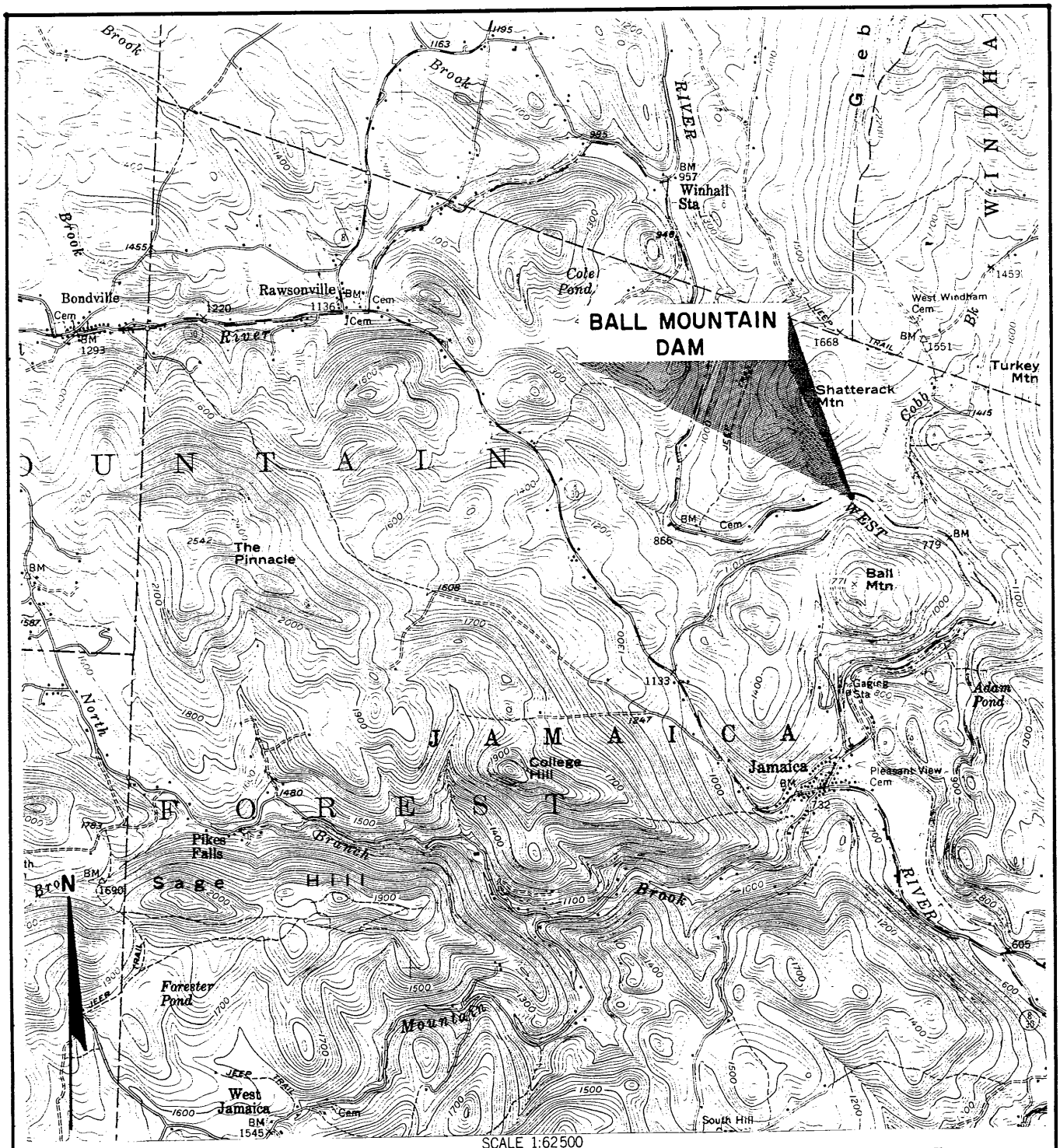
SI-85-4 shows no measured movement until June 1987 when there was about 0.3 inch of shallow downstream movement starting at a depth of about 8 to 10 feet below the dam surface.

SI-85-5 shows no measured movement during 1986. The May 1987 readings taken after the April 1987 flood showed about 0.15 inch of downstream movement extending from about El. 995 to the dam surface. Subsequent readings showed rebound at the dam surface. In November 1987 the deflection at the dam surface was about 0.15 inch less than the pre-flood deflection, but there was a net permanent deflection at El. 995, near the downstream edge of the impervious core.

SI-85-6 has shown a gradual increase in downstream deflections at the dam surface reaching about 0.45 inch in November 1987. From about El. 930 to 945, there is a bulge in the inclinometer casing that has a component in both the downstream direction and parallel to the dam axis (Figs. 14, 15, 26, and 27). The deflection measured parallel to the dam axis is about 0.8 inch in November 1987.

Both SI-85-2 and SI-85-6 show downstream deflection above an elevation of about El. 930 to 935, but SI-85-4 only shows downstream deflection near the ground surface. This difference in behavior suggests there is a possibility that the zone of deflection at SI-85-4 may extend below the bottom of SI-85-4. Because the bottom of the inclinometer casing is the reference point for the deflection calculations, the actual deflection at SI-85-4 would be

greater than those measured if the bottom of the casing were moving downstream.



SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

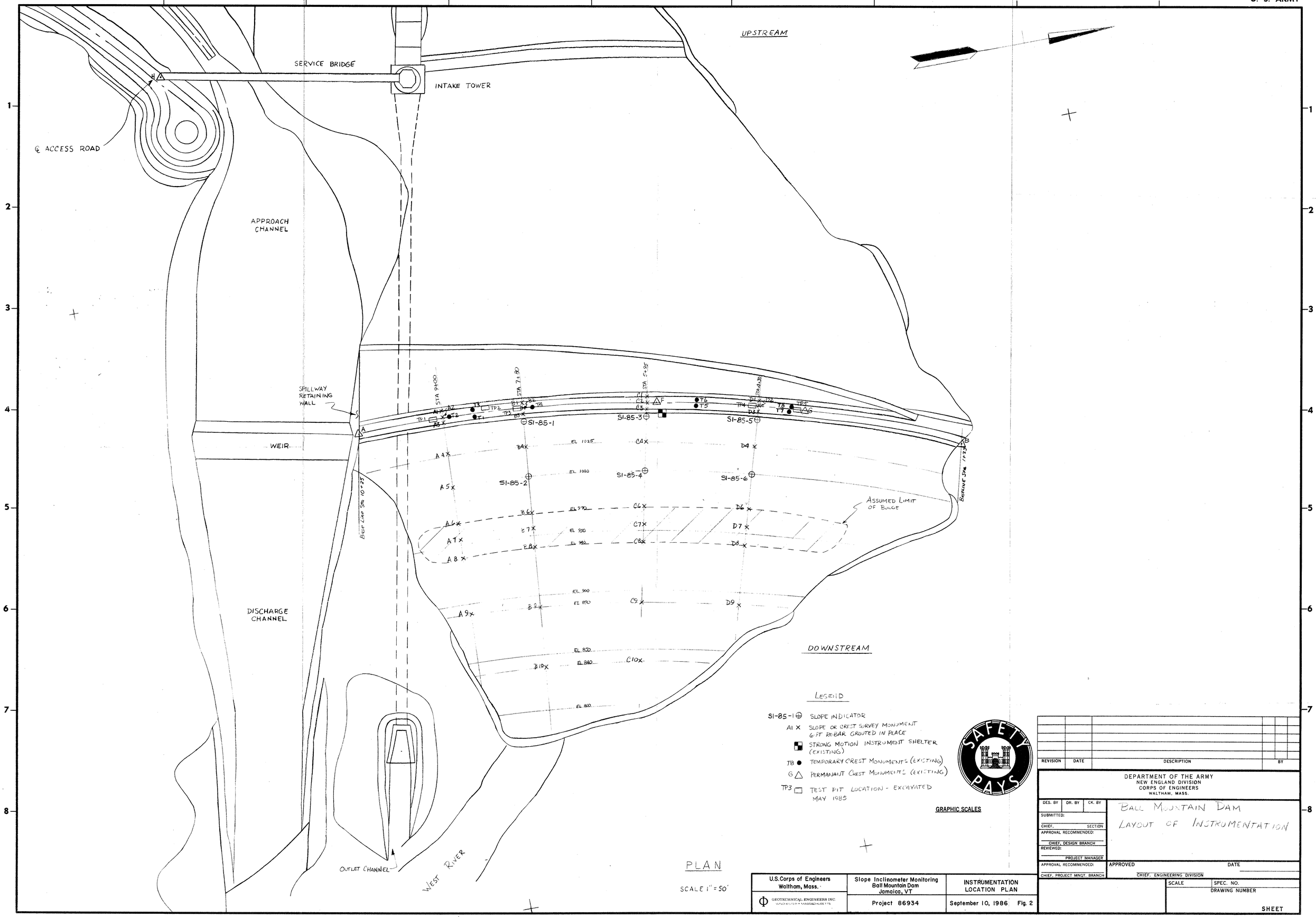
CONTOUR INTERVAL 20 FEET

DATUM IS MEAN SEA LEVEL

Reproduced from US Geological Survey topographic map for the Londonderry, VT 15 minute quadrangle.

U. S. Corps of Engineers Waltham, MA	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	PROJECT SITE LOCATION PLAN
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	Sept. 18, 1986 Fig. 1

CORPS OF ENGINEERS U. S. ARMY



PLAN

SCALE 1" = 50'

REVISION	DATE	DESCRIPTION	BY

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION
CORPS OF ENGINEERS
WALTHAM, MASS.

DES. BY | DR. BY | CK. BY

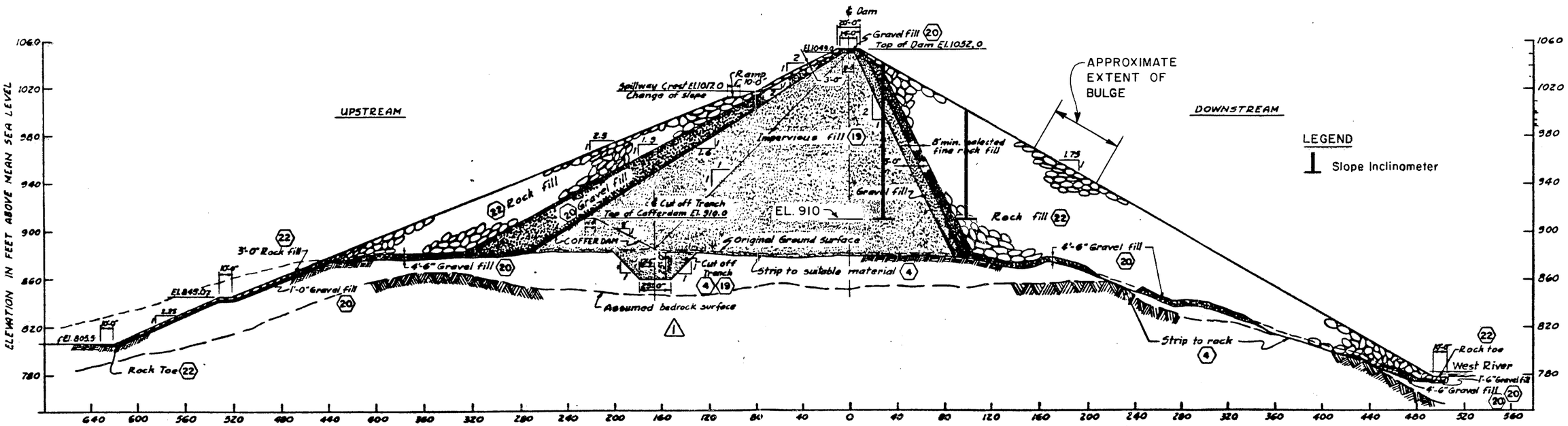
SUBMITTED:
CHIEF, SECTION
APPROVAL RECOMMENDED:
CHIEF, DESIGN BRANCH
REVIEWED:
PROJECT MANAGER
APPROVAL RECOMMENDED:
CHIEF, PROJECT MNGT. BRANCH

BALL MOUNTAIN DAM
LAYOUT OF INSTRUMENTATION

APPROVED DATE
CHIEF, ENGINEERING DIVISION

SCALE | SPEC. NO.
DRAWING NUMBER
SHEET

U.S. Corps of Engineers Waltham, Mass.	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	INSTRUMENTATION LOCATION PLAN
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	September 10, 1986 Fig. 2

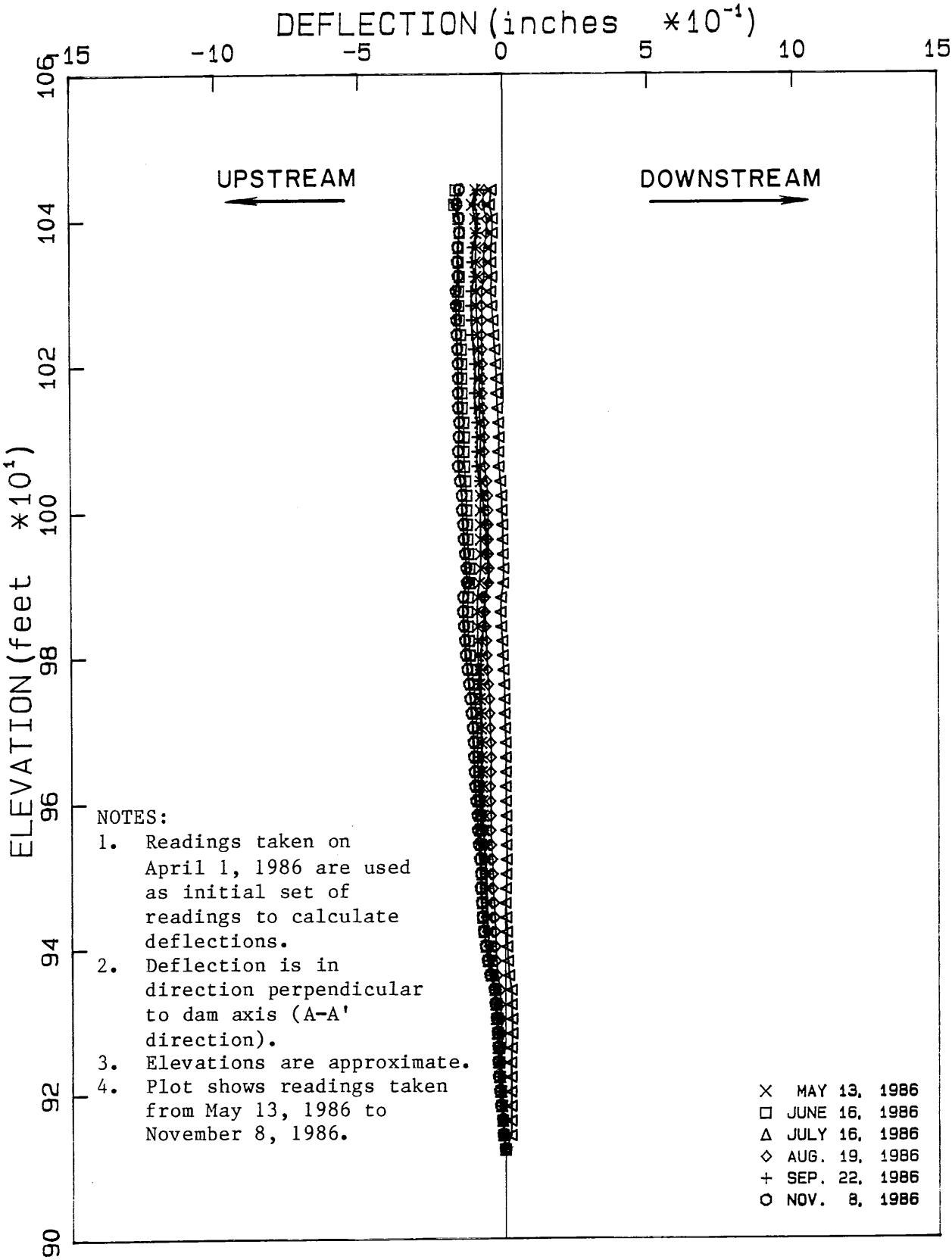


SECTION AT STA. 8+50

DISTANCES FROM CENTERLINE IN FEET

Base drawing taken from NED-COE drawing CT-1-4174, Feb. 1957
Ball Mountain Dam, Embankment Sections and Profiles

U.S. Corps of Engineers Waltham, MA	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	SLOPE INCLINOMETER LOCATION SECTION
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	Sept. 18, 1986 Fig. 3



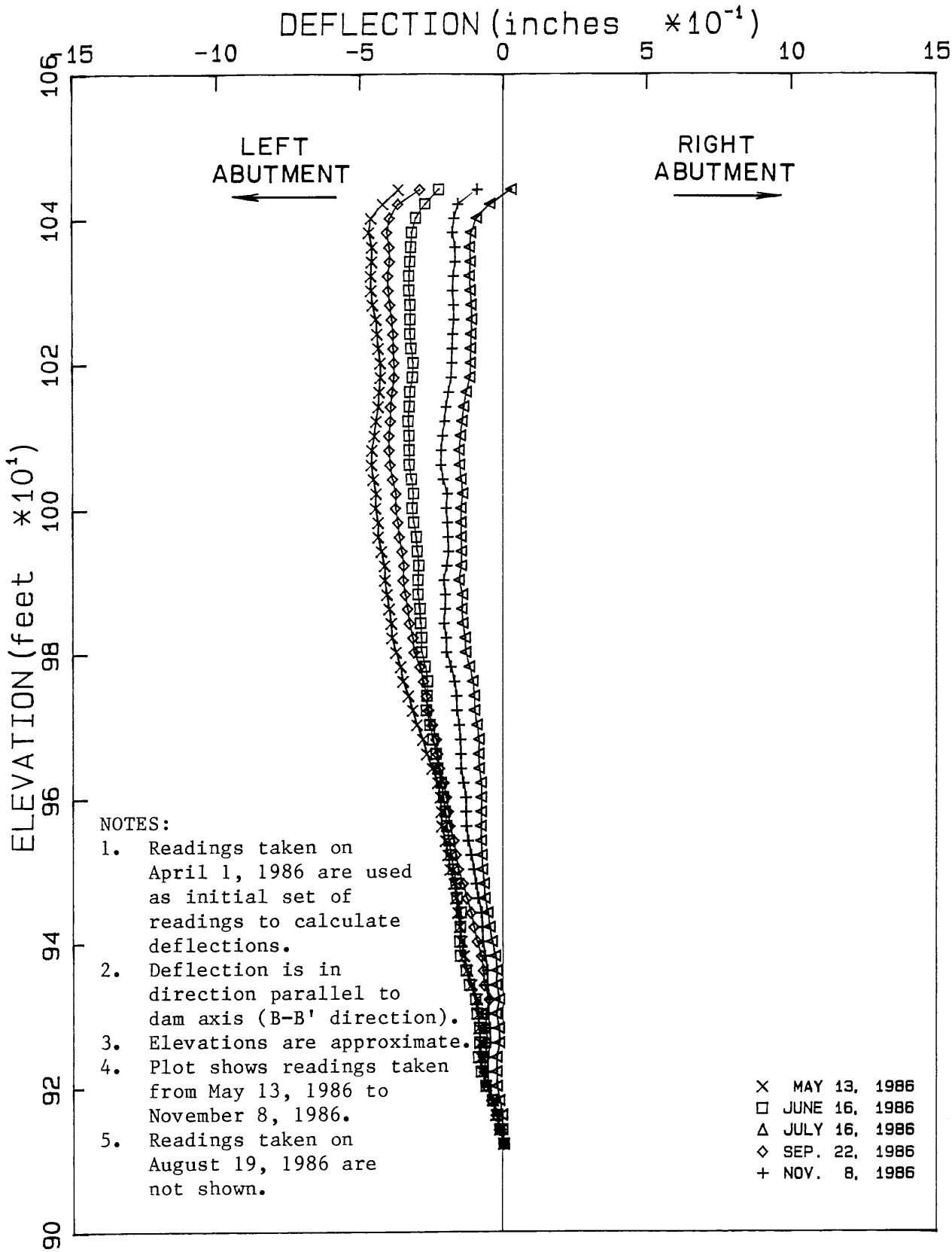
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 4



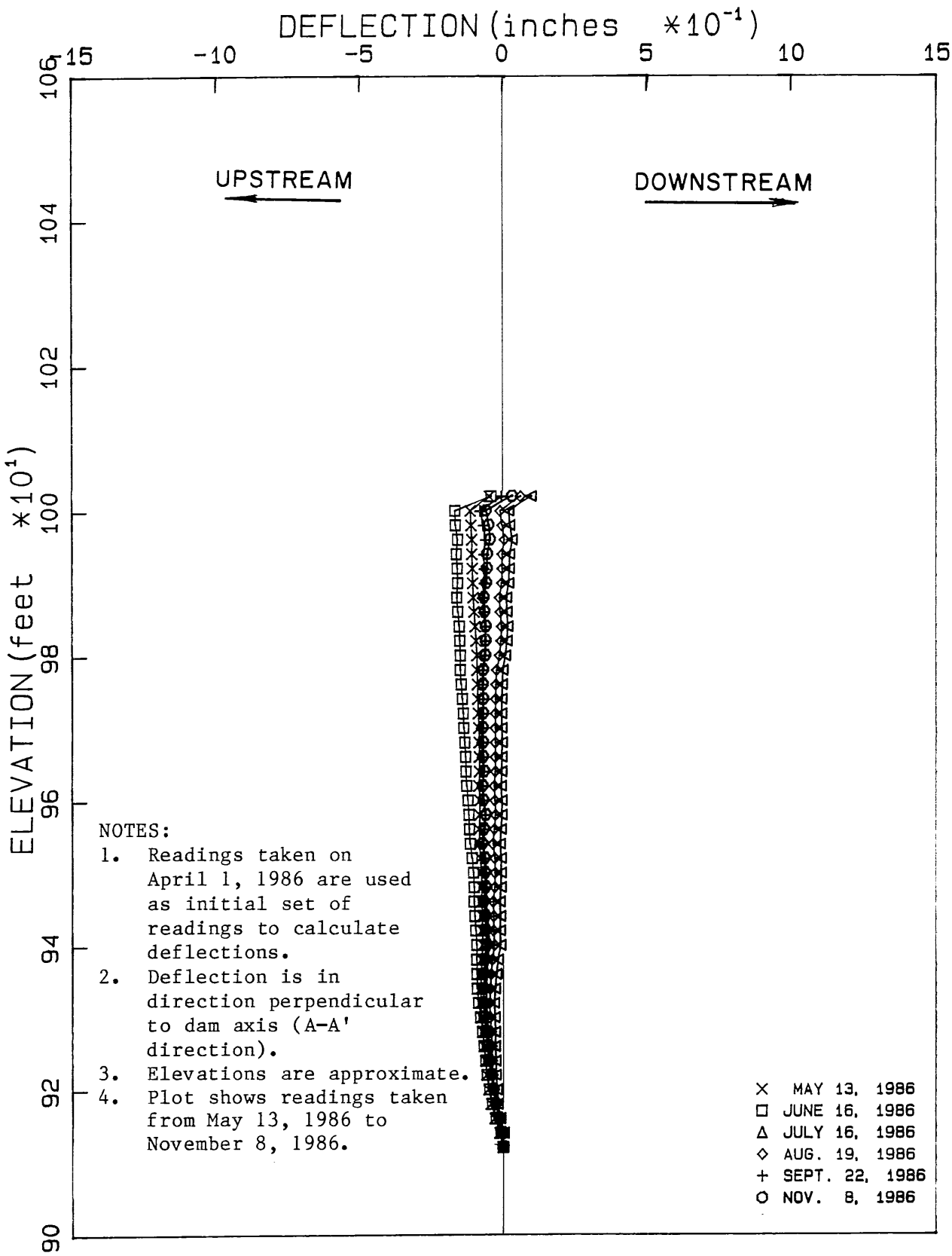
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 5



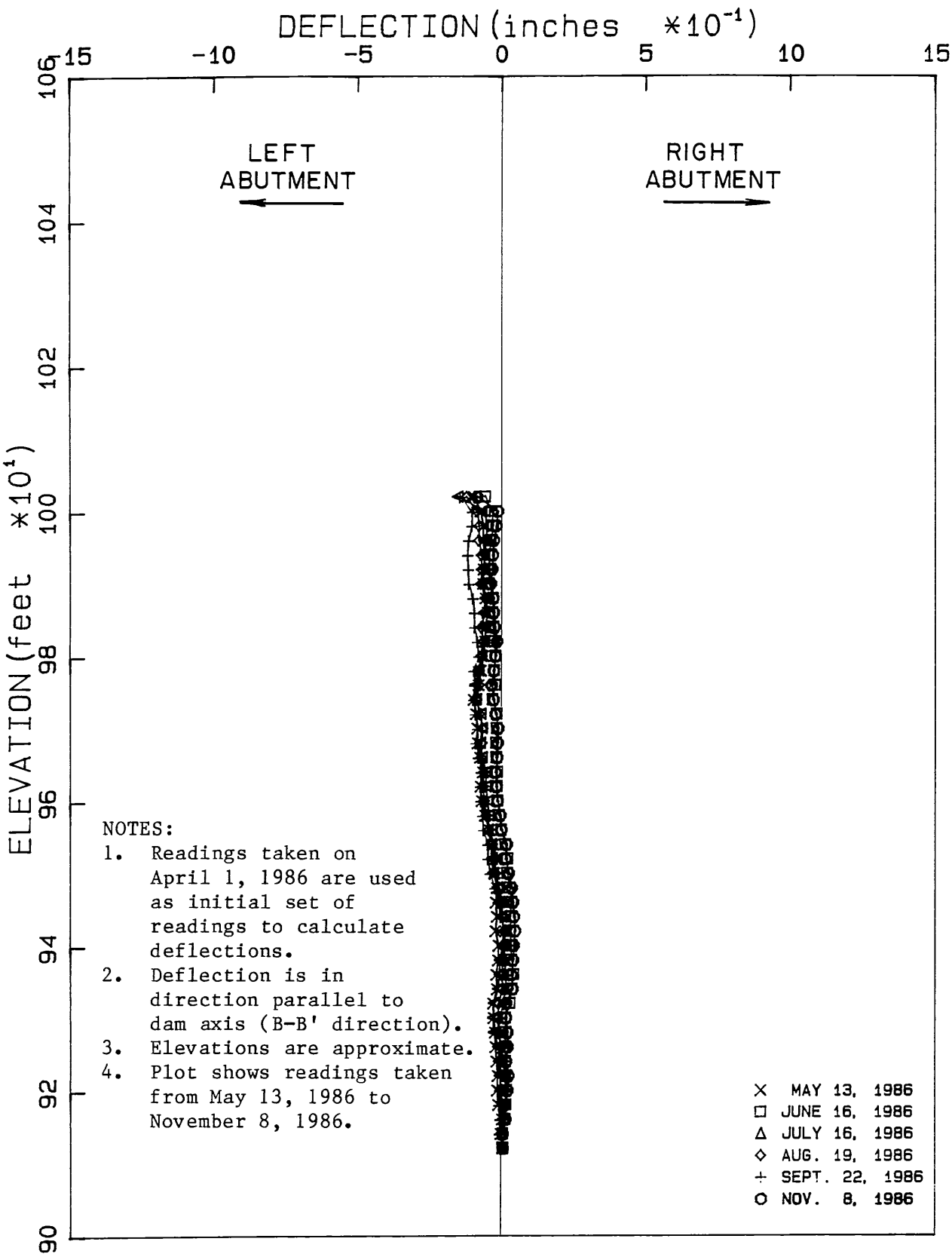
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 6



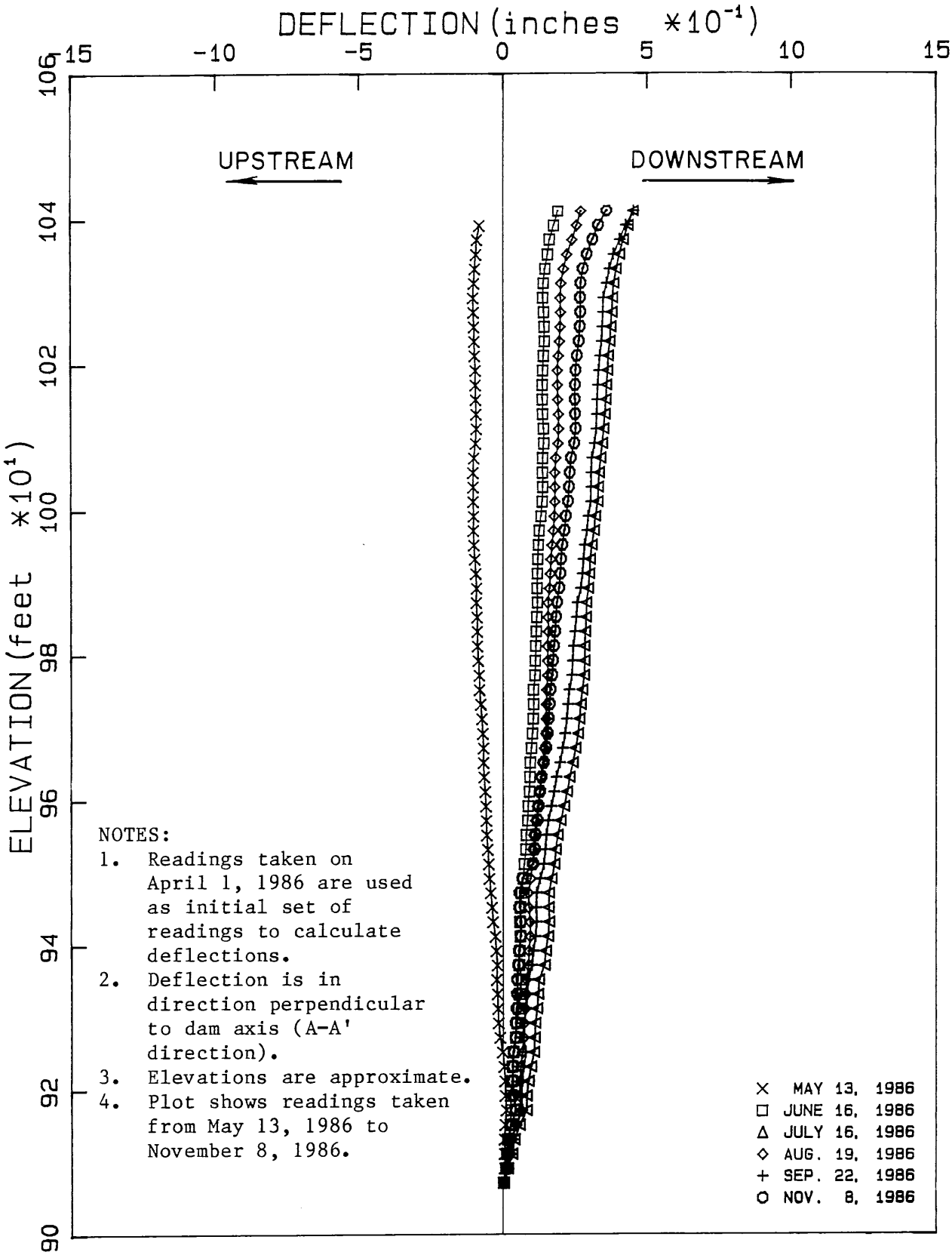
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 7



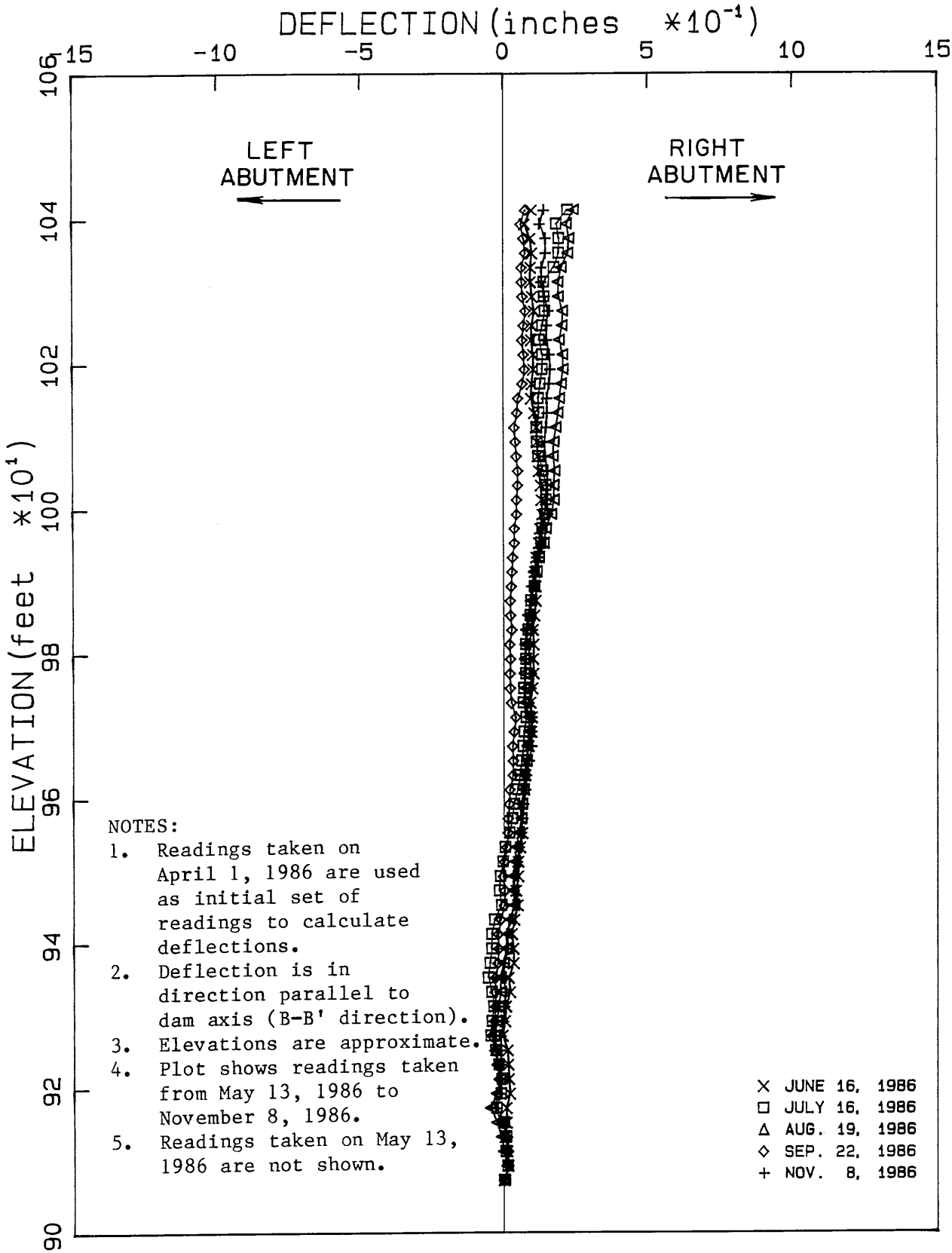
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 8



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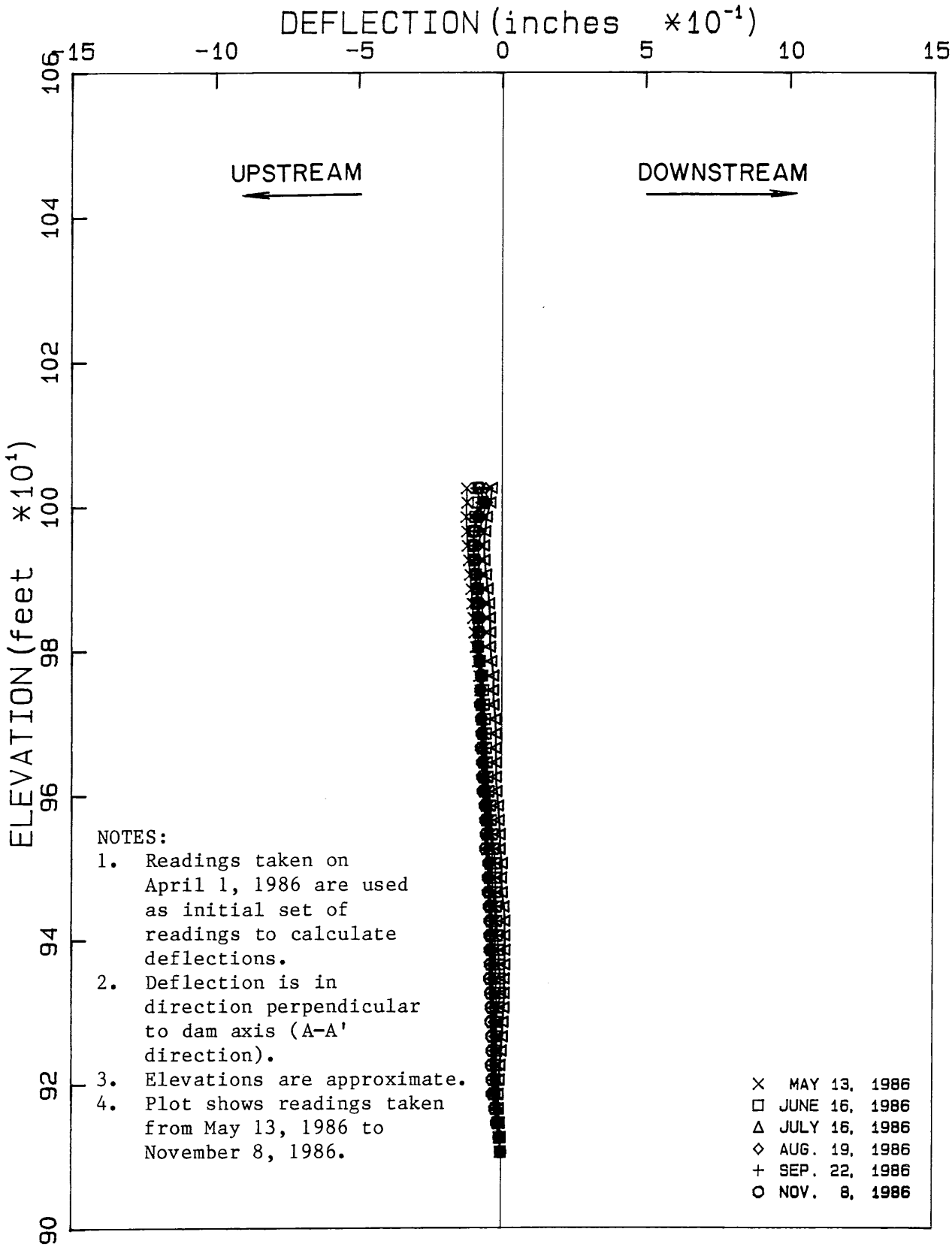
BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 9



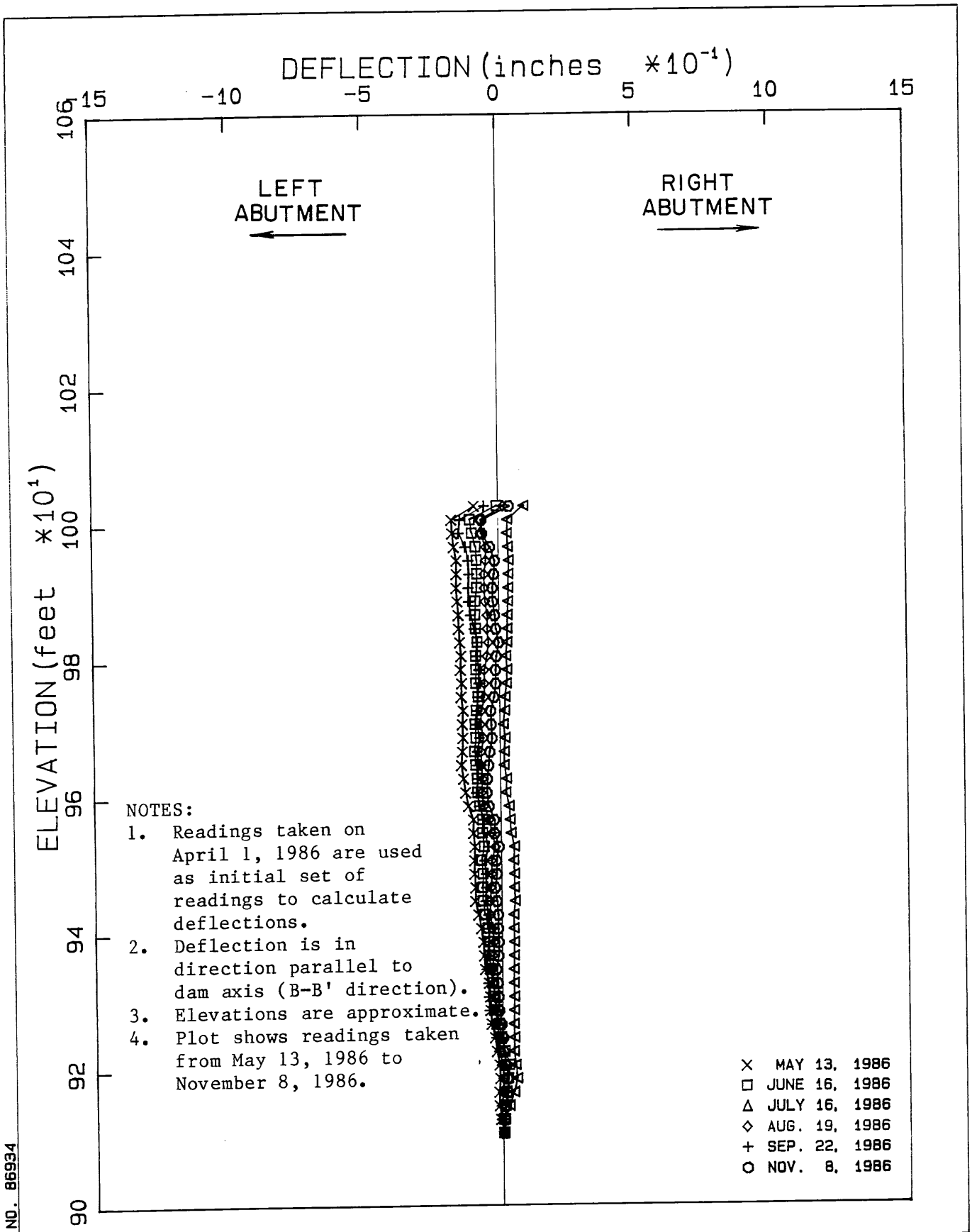
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 10



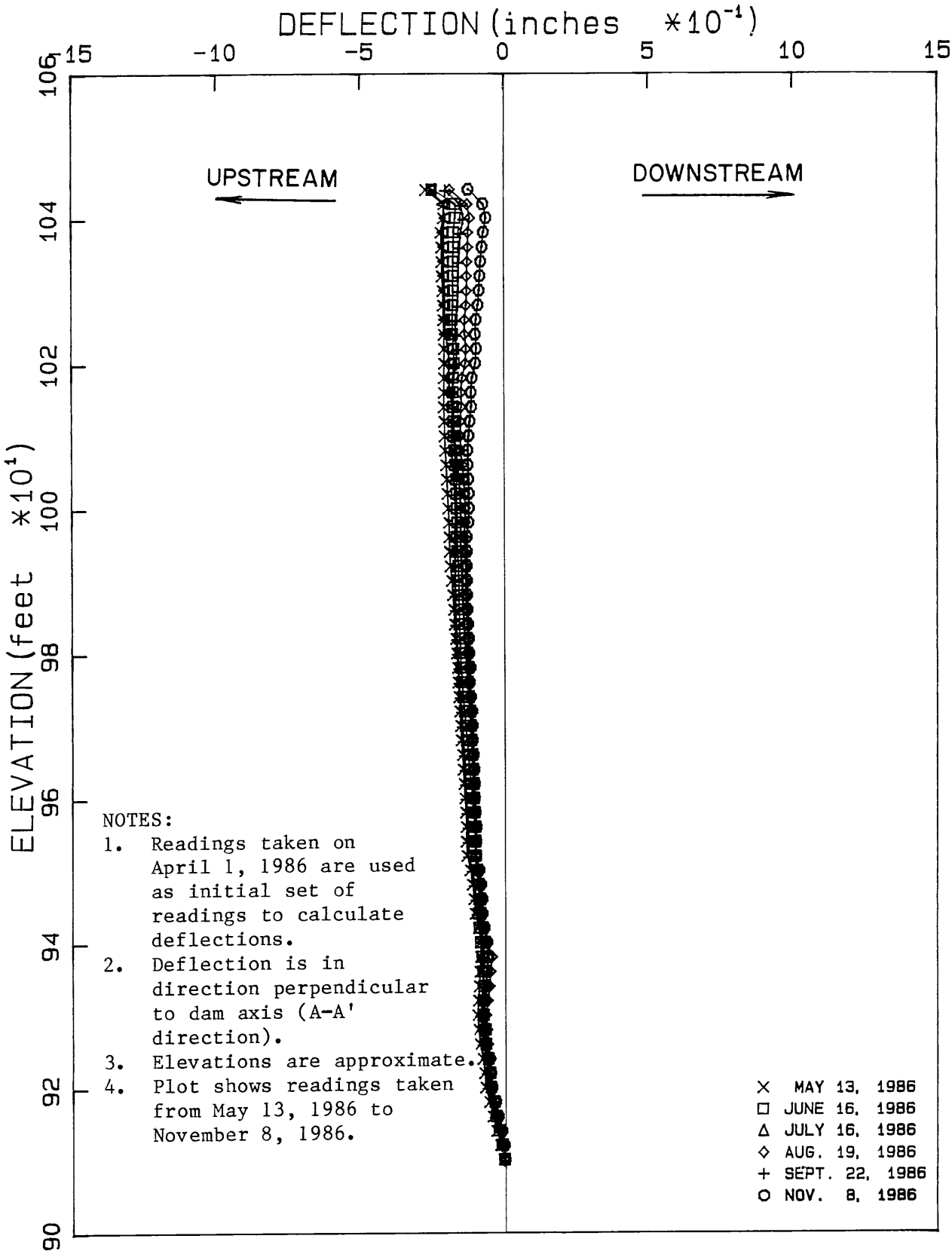
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 11



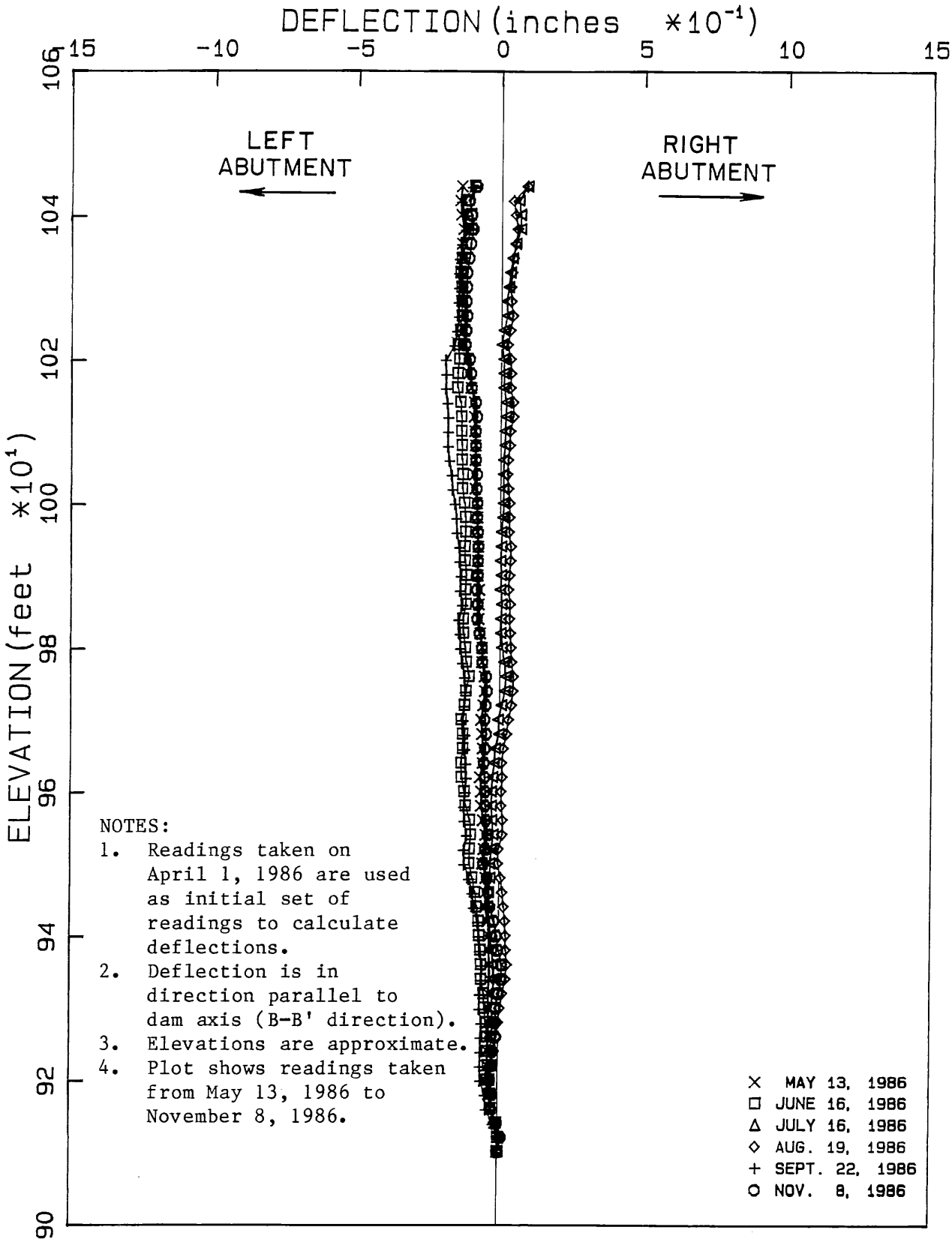
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 12



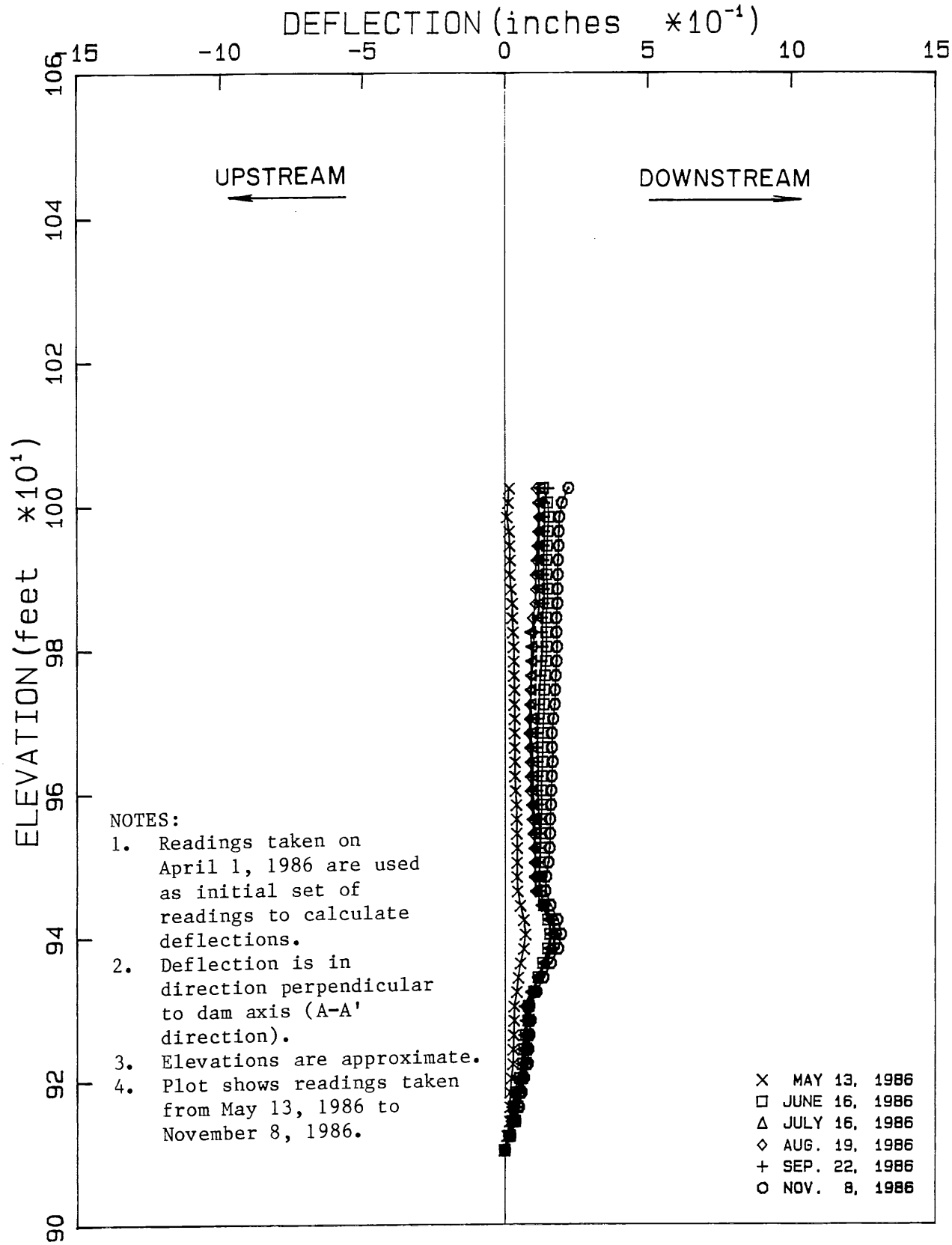
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 13



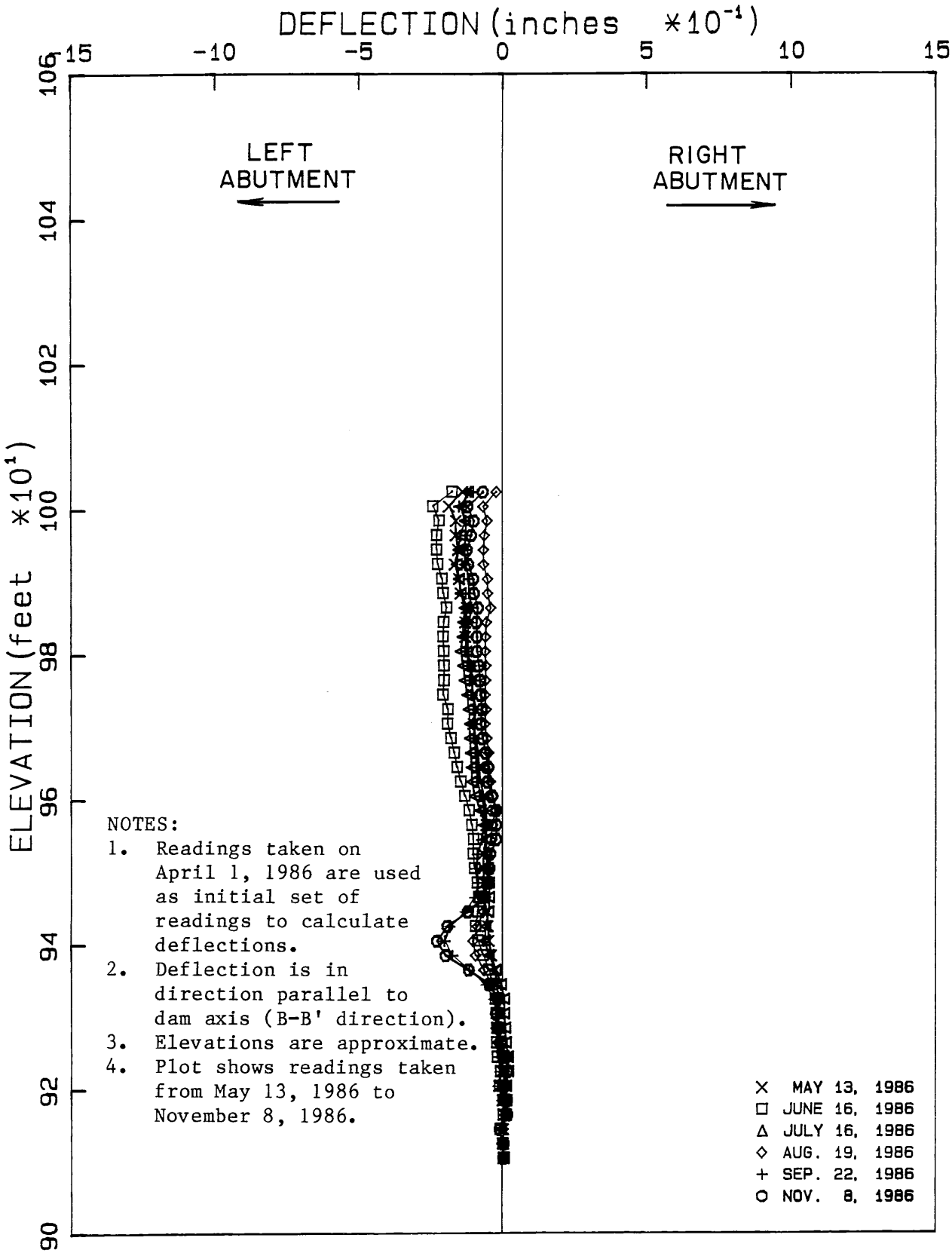
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 14



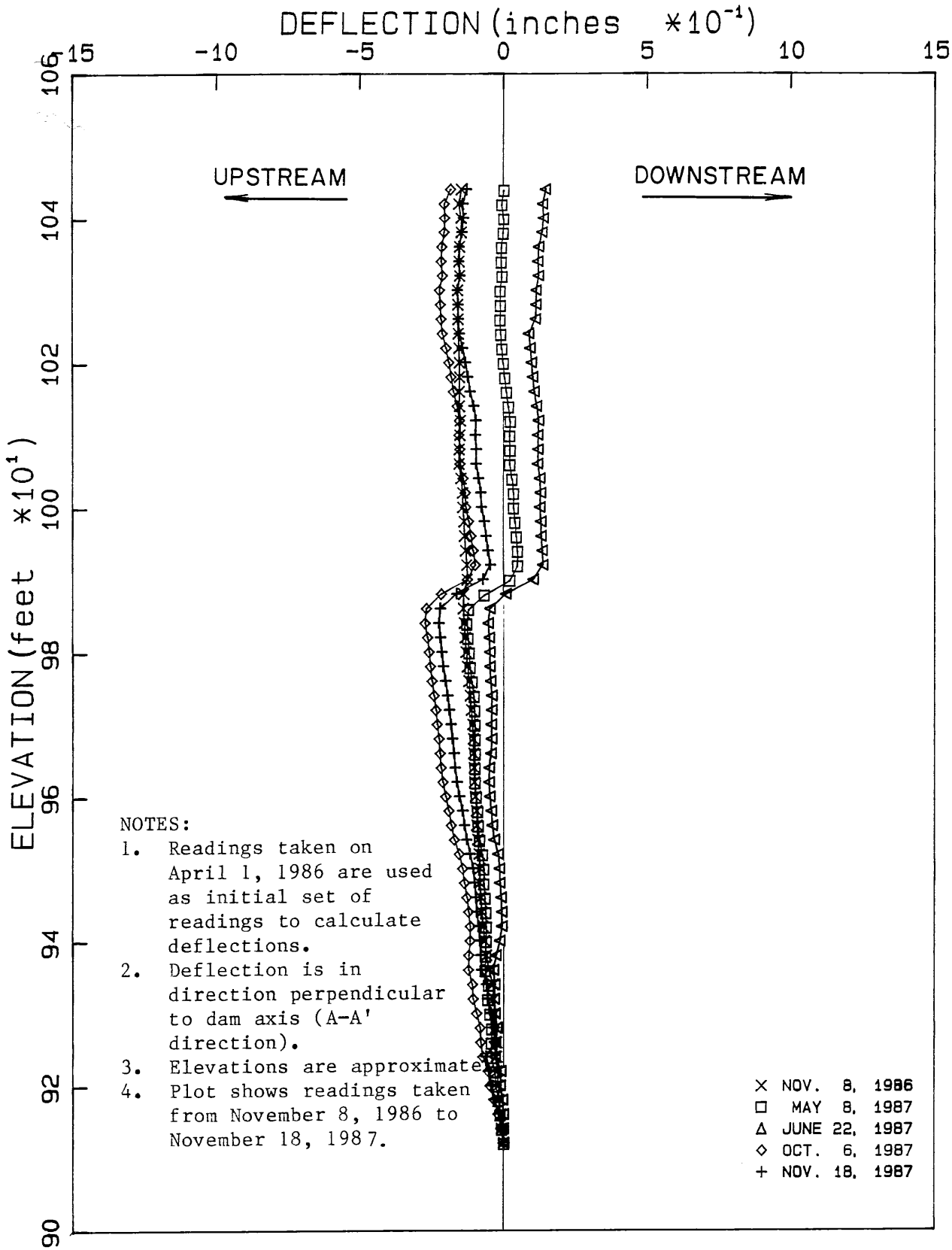
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 15



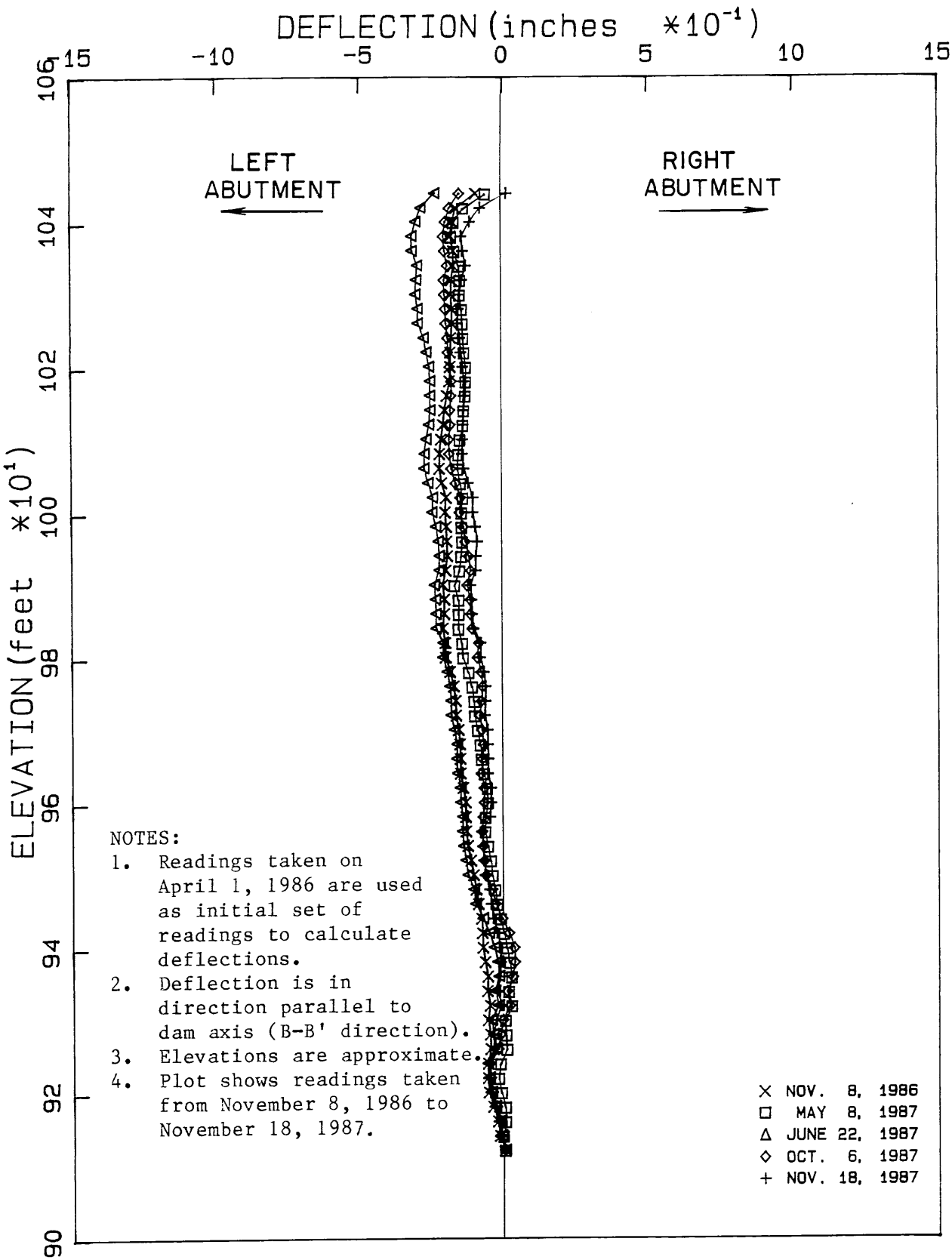
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 16



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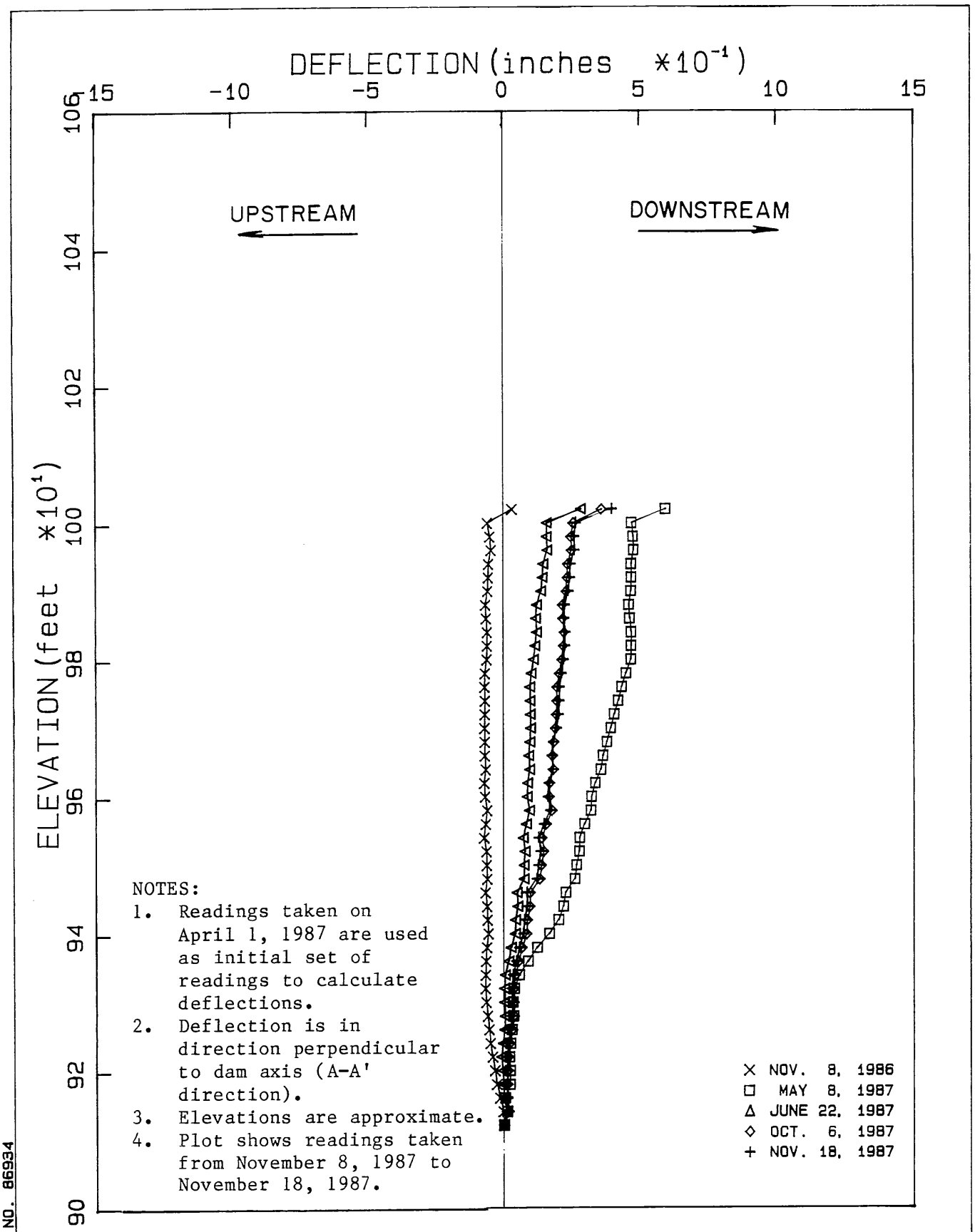
BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-1 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 17



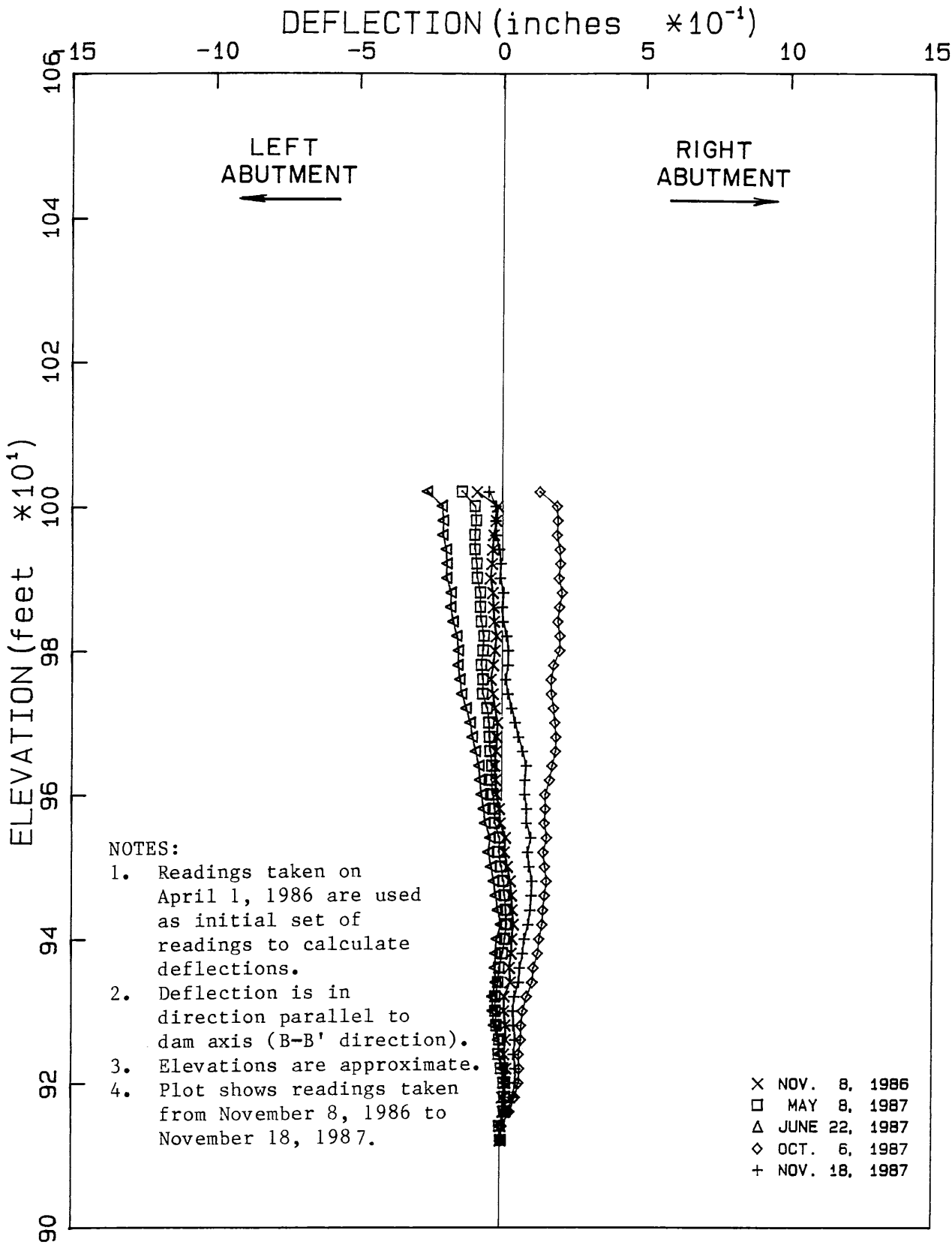
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 18



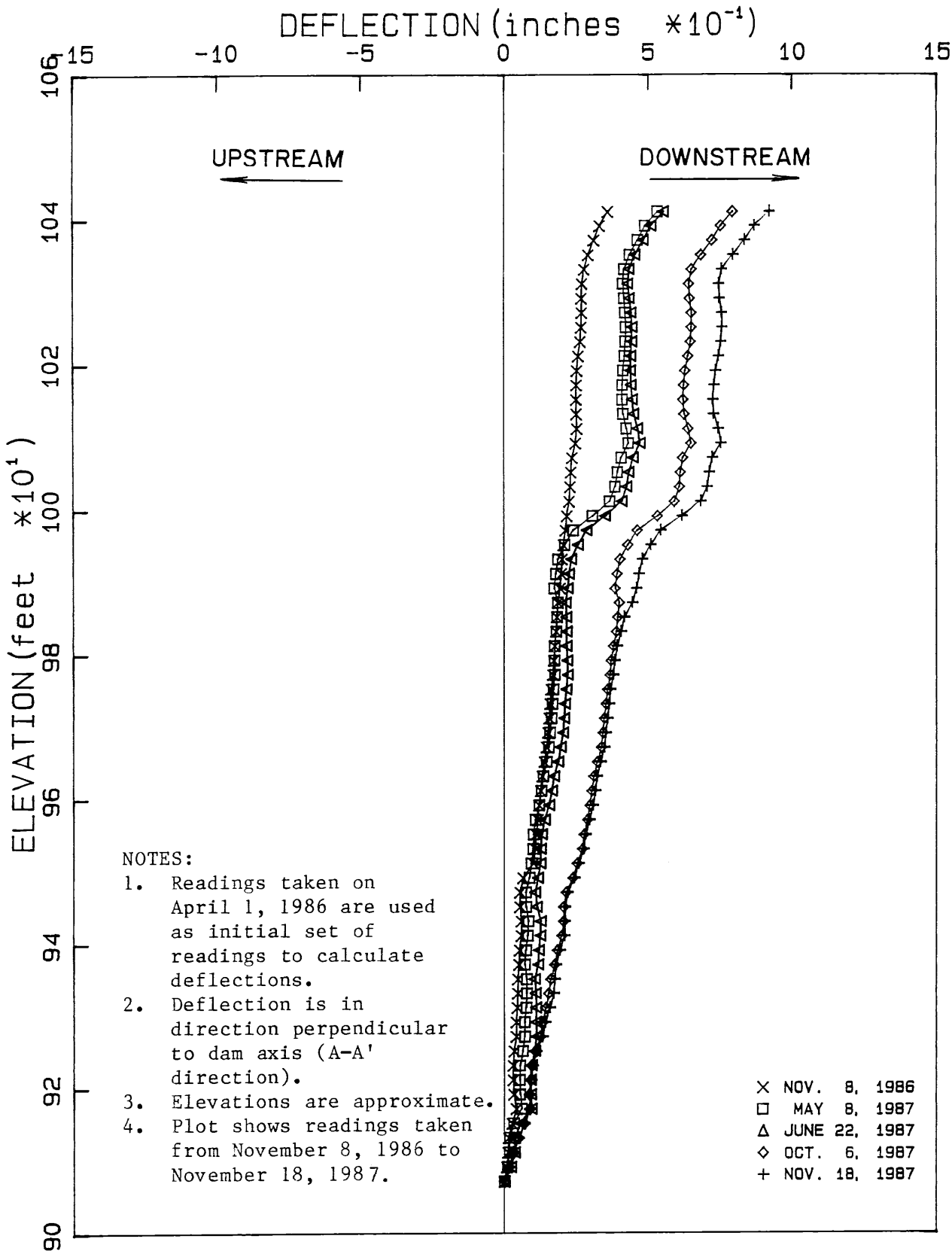
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-2 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 19



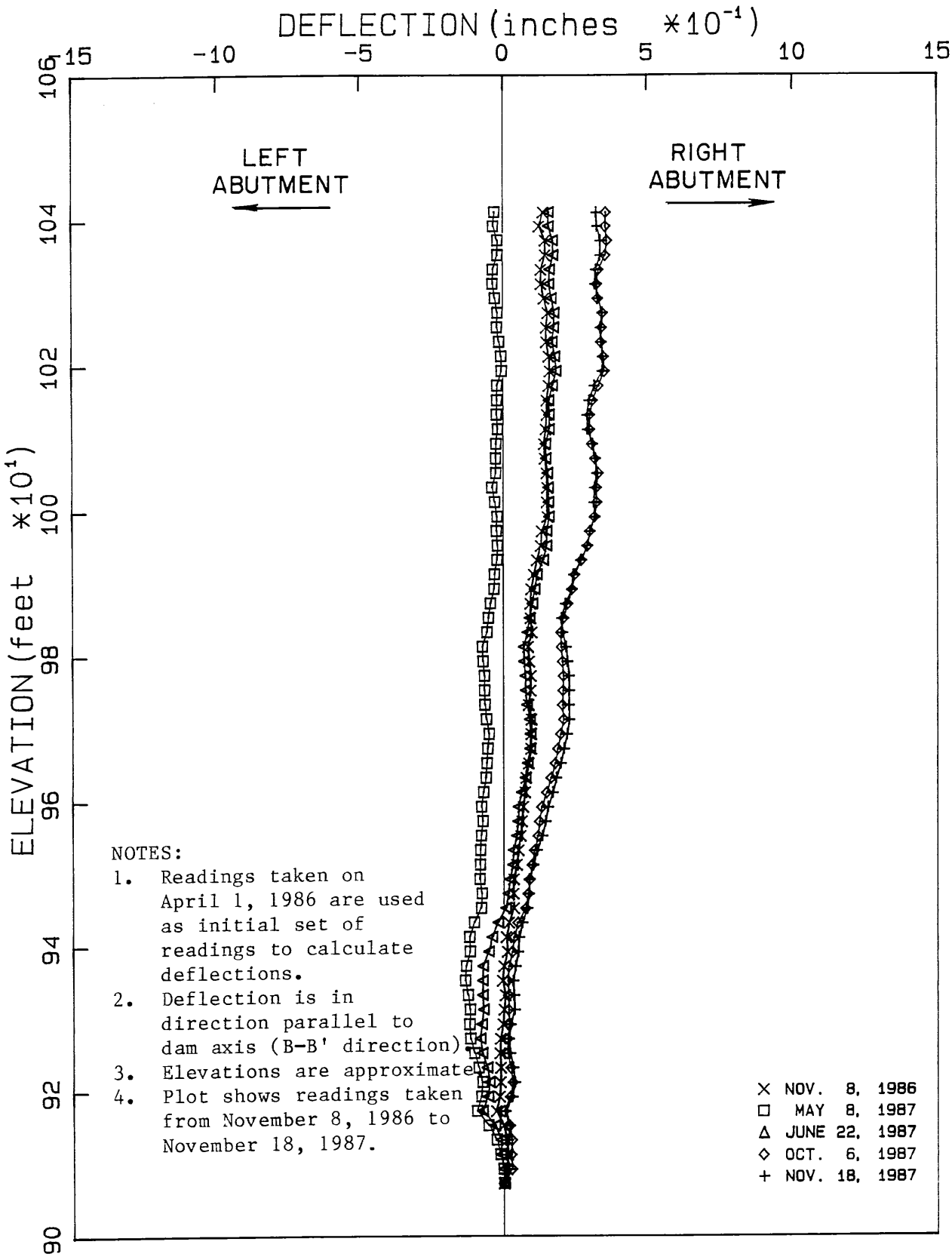
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 20



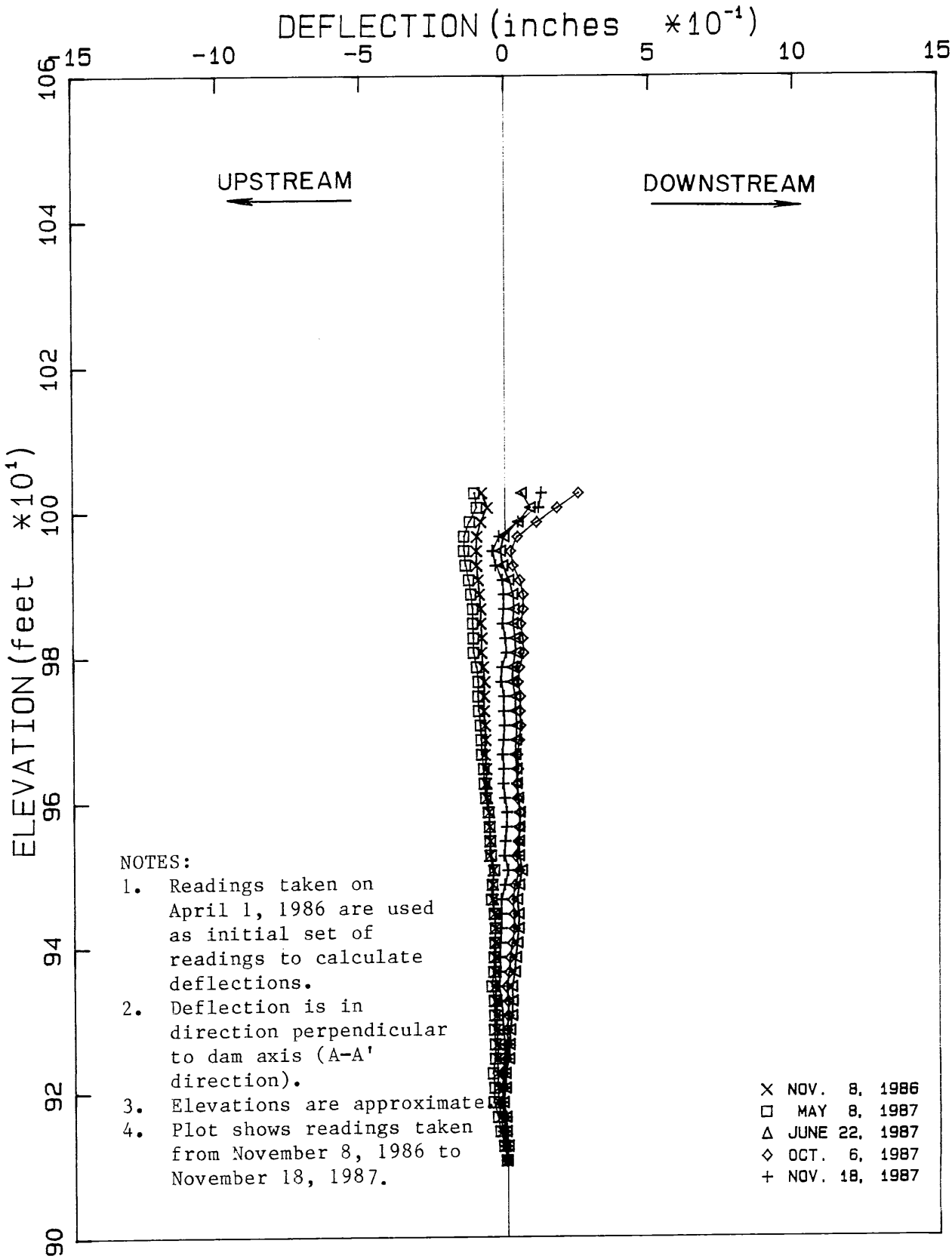
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-3 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 21



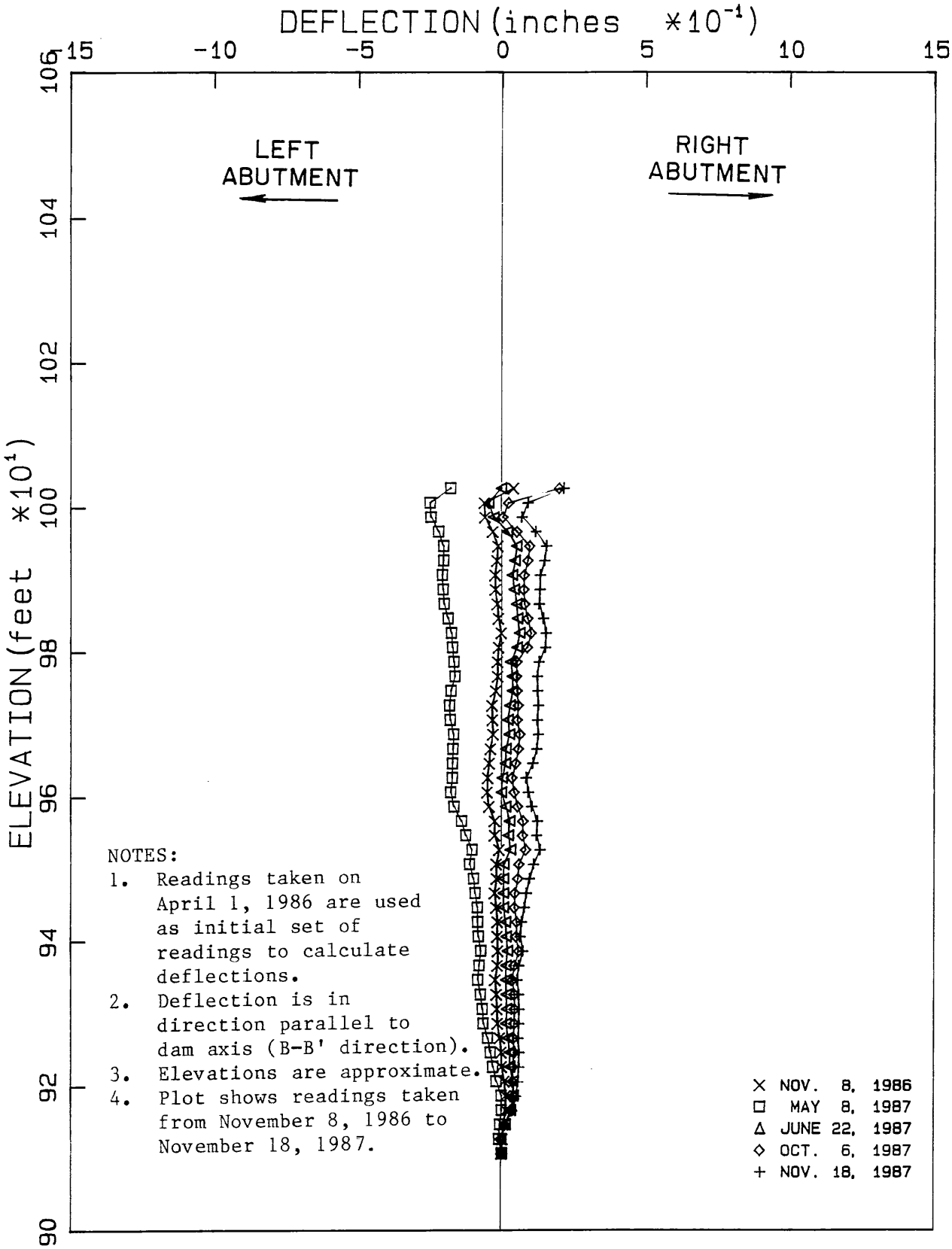
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 22



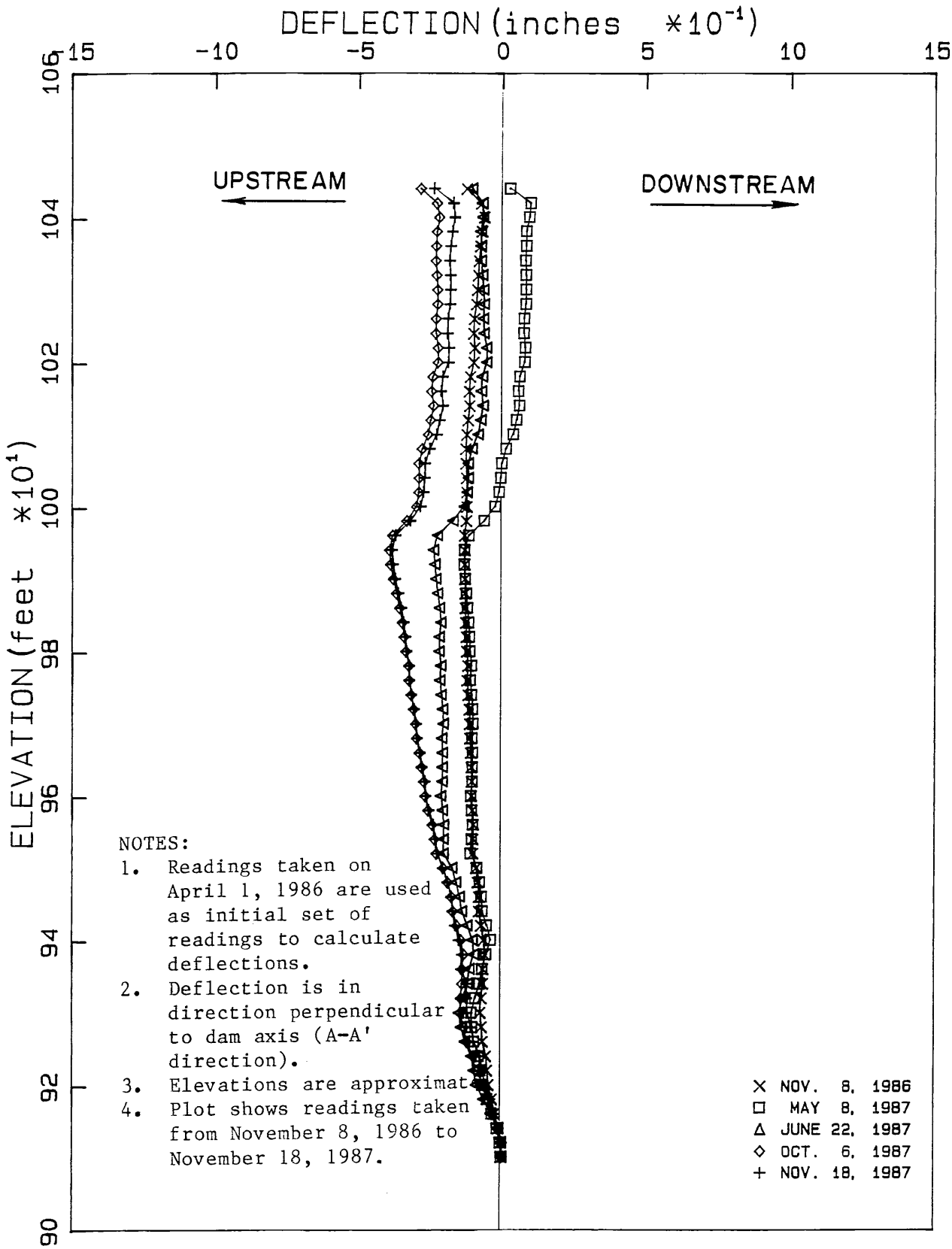
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-4 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 23



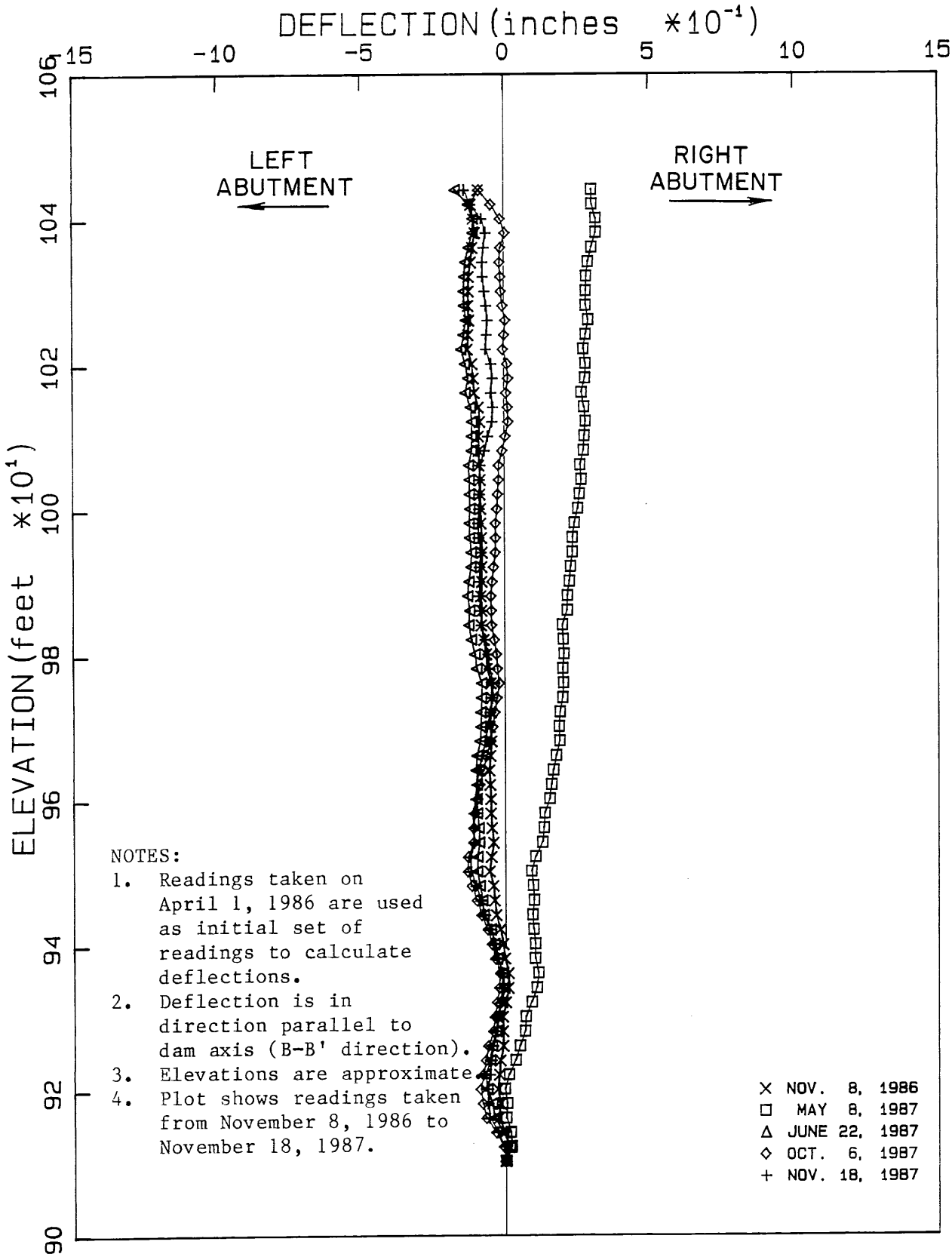
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 24



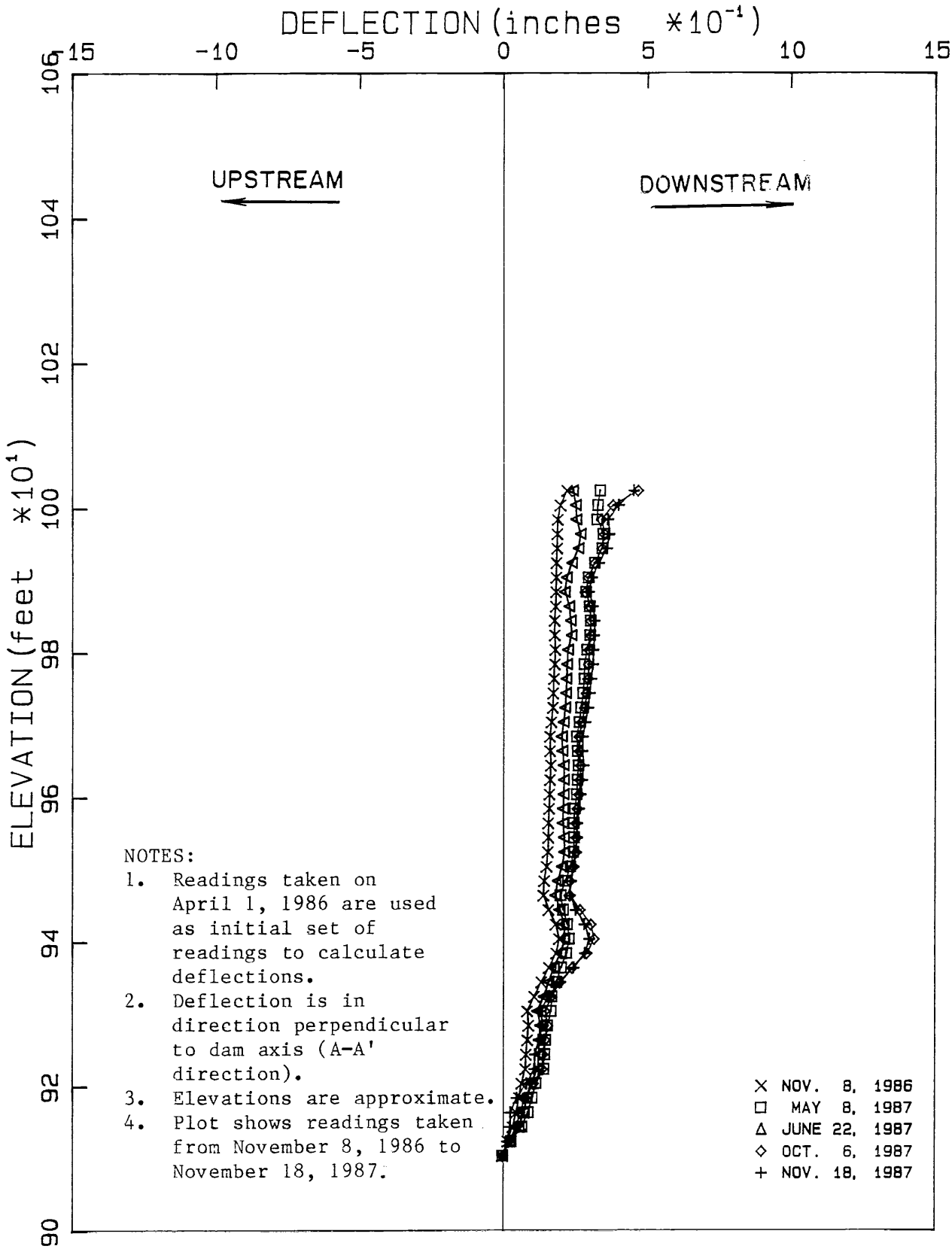
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-5 (B-B')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 25



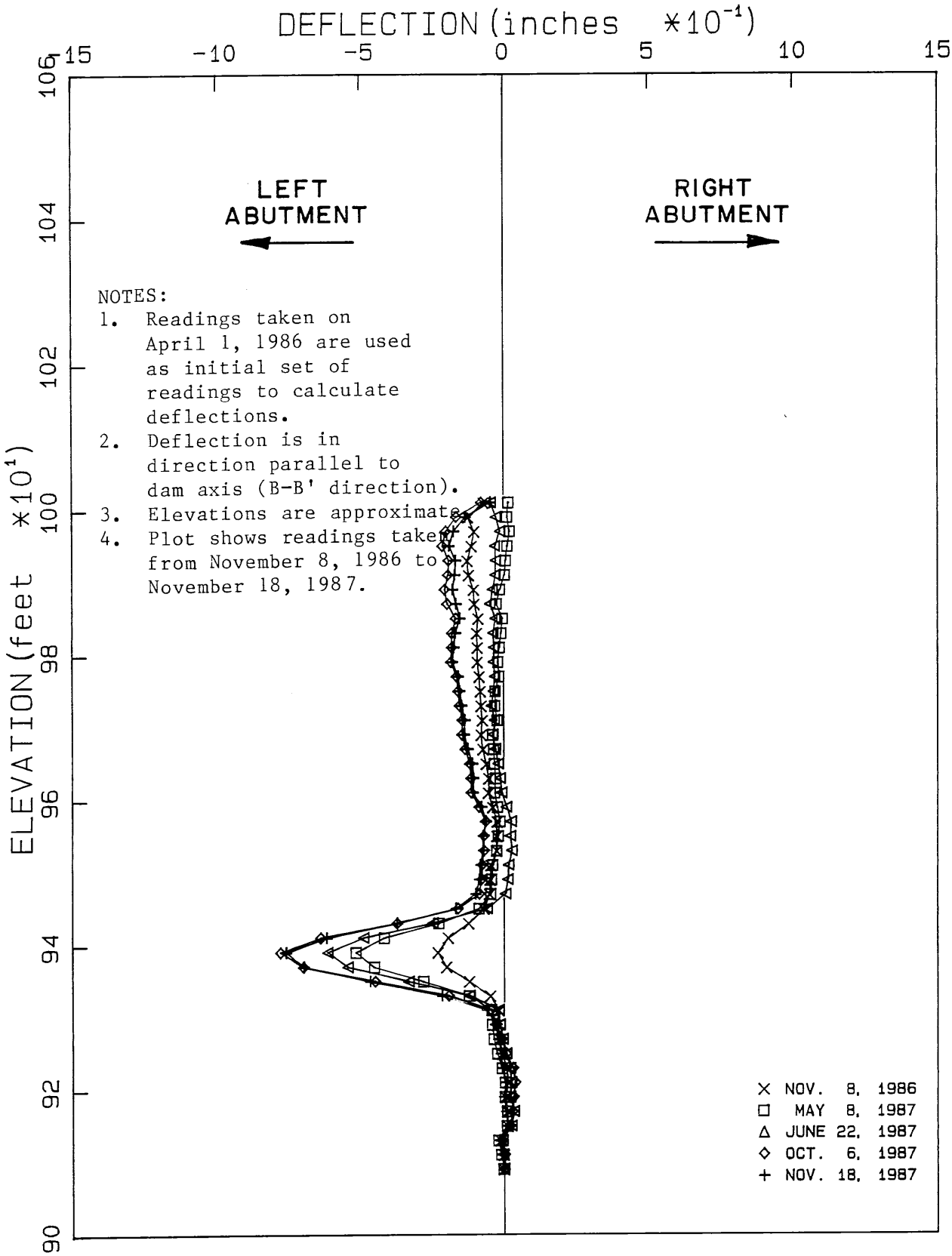
FILE NO. 86934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (A-A')
DEFL. vs. ELEV.

12-15-87

FIGURE No. 26



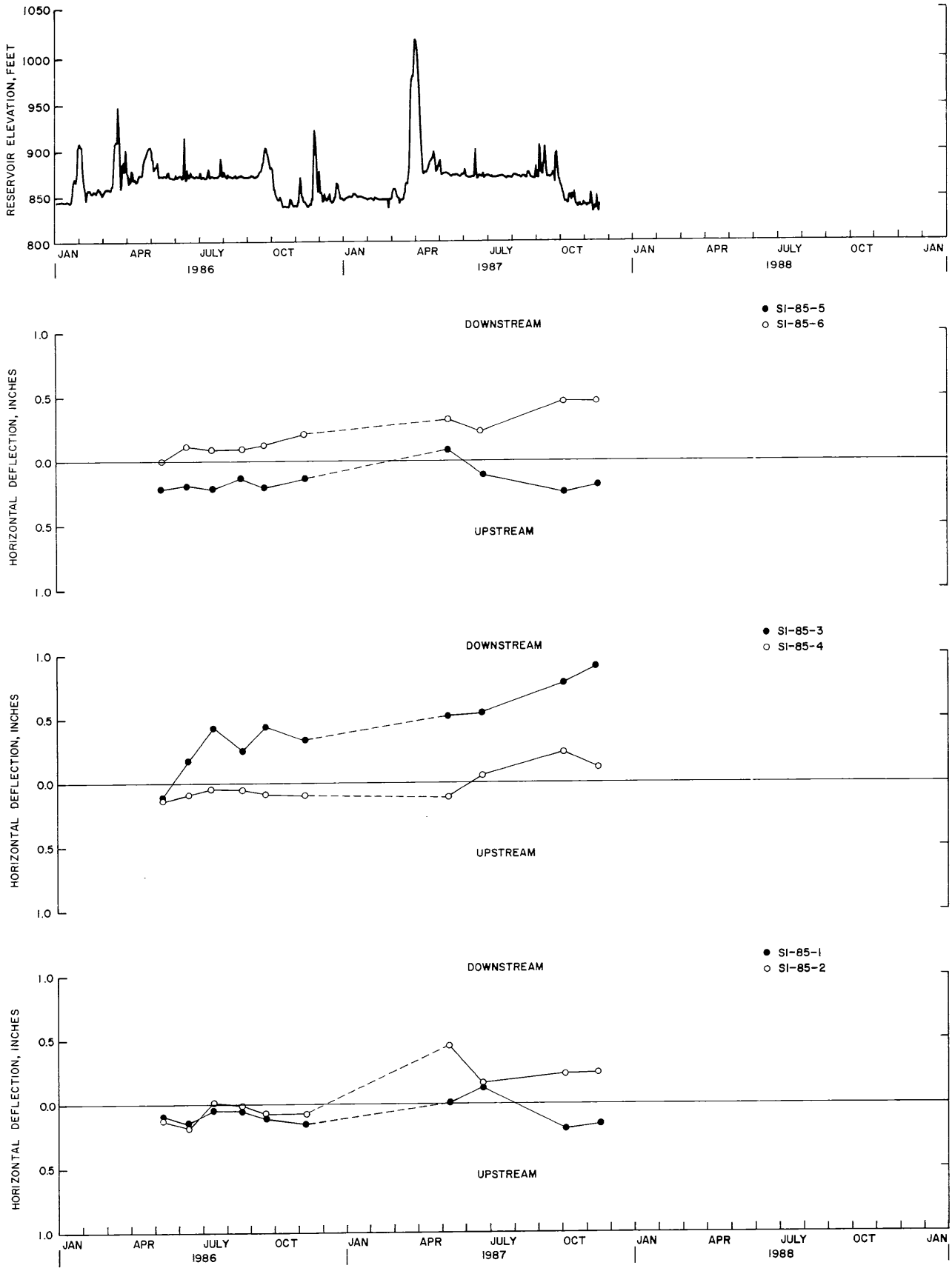
FILE NO. 96934

BALL MOUNTAIN DAM
JAMAICA, VERMONT

INCLIN. SI-85-6 (B-B')
DEFL. vs. ELEV.

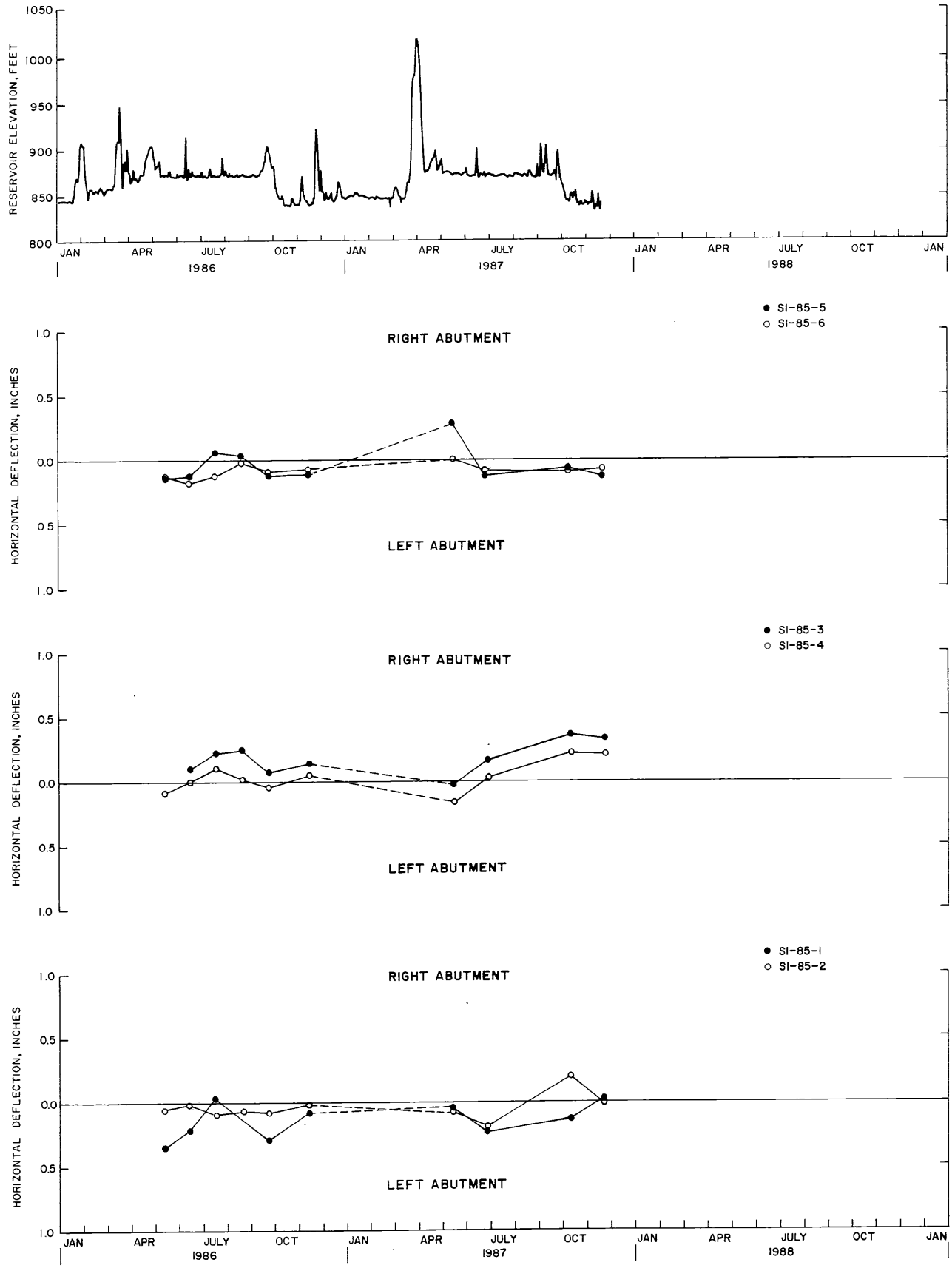
12-15-87

FIGURE No. 27



Note: The horizontal deflections are measured in the inclinometer within 0 to 2 feet below the dam surface.

U.S. Army Corps of Engineers New England Division	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, Vermont	HORIZONTAL DEFLECTIONS AT THE DAM SURFACE PERPENDICULAR TO DAM AXIS
GEI Consultants, Inc. Winchester - Massachusetts	Project 86934	June 22, 1988 Fig. 28



Note: The horizontal deflections are measured in the inclinometer within 0 to 2 feet below the dam surface.

U.S. Army Corps of Engineers New England Division	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, Vermont	HORIZONTAL DEFLECTIONS AT THE DAM SURFACE PARALLEL TO DAM AXIS
GEI Consultants, Inc. Winchester - Massachusetts	Project 86934	June 22, 1988 Fig. 29

APPENDIX A

SUMMARY OF DAILY ACTIVITIES

APPENDIX A

SUMMARY OF DAILY ACTIVITIES

Date	Activity
January 23, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 9:00 a.m. Met with R. Snow (NED-CE). Read slope inclinometer Nos. 1-3. Left the site at 4:30 p.m.
January 24, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 7:30 a.m. Read slope inclinometer Nos. 4-6. Left the site at 4:30 p.m.
March 31, 1986	S. Sarandis and M. McCaffrey (GEI) arrived on site at 11:30 a.m. Met with R. Snow (NED-CE). Read slope inclinometer Nos. 4-6. Left the site at 6:00 p.m.
April 1, 1986	S. Sarandis and M. McCaffrey (GEI) arrived on site at 7:30 a.m. Read slope inclinometer Nos. 1-3. Left the site at 2:30 p.m.
May 13, 1986	S. Sarandis (GEI) arrived on site at 11:00 a.m. Met with R. Snow (NED-CE) and P. Deterling (GEI). Read slope inclinometer Nos. 3, 5, and 6. Left the site at 5:30 p.m.
May 14, 1986	S. Sarandis (GEI) arrived on site at 9:00 a.m. Met with P. Deterling (GEI). Read slope inclinometer Nos. 1, 2, and 4. Left the site at 2:00 p.m.
June 15, 1986	S. Sarandis and M. Mahoney (GEI) arrived on site at 12:00 noon. Met with R. Snow (NED-CE). Read slope inclinometer Nos. 1-2. Left the site at 5:00 p.m.
June 16, 1986	S. Sarandis and M. Mahoney (GEI) arrived on site at 8:30 a.m. Read slope inclinometer Nos. 3-6. Left the site at 2:00 p.m.

Date	Activity
July 15, 1986	S. Sarandis and S. Reich (GEI) arrived on site at 11:30 a.m. Read slope inclinometer Nos. 3-6. Visitors on site were Paul L'Heureux (NED-CE) and Survey Crew (BSC). Left the site at 6:00 p.m.
July 16, 1986	S. Sarandis and S. Reich (GEI) arrived on site at 8:00 a.m. Read slope inclinometer Nos. 1-2. Visitors on site were Paul L'Heureux (NED-CE) and Survey Crew (BSC). Left the site at 12:30 p.m.
August 18, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 11:30 a.m. Met with R. Snow (NED-CE). Read slope inclinometer Nos. 1-4. Left the site at 6:00 p.m.
August 19, 1986	S. Sarandis and R. Barry (GEI) arrived on site at 9:00 a.m. Read slope inclinometer Nos. 5-6. Left the site at 2:00 p.m.
September 22, 1986	S. Sarandis and J. Toothaker (GEI) arrived on site at 11:30 a.m. Read slope inclinometer Nos. 3, 4, and 5. Left the site at 5:30 p.m.
September 23, 1986	S. Sarandis and J. Toothaker (GEI) arrived on site at 8:30 a.m. Met with R. Snow (NED-CE). Read slope inclinometer Nos. 1, 2, and 6. Left the site at 3:00 p.m.
November 8, 1986	S. Sarandis and P. Costello (GEI) arrived on site at 11:00 a.m. Met with R. Snow (NED-CE). Performed settlement survey of inclinometers. Read slope inclinometer Nos. 1, 2, and 4. Left site at 4:30 p.m.
November 9, 1986	S. Sarnadis and P. Costello (GEI) arrived on site at 9:00 a.m. Read slope inclinometer Nos. 3, 5, and 6. Left site at 2:00 p.m.

Date	Activity
May 7, 1987	P. Costello and C. Conlon (GEI) arrived on site at 12:30 p.m. Met with R. Snow (NED-CE). Performed settlement survey of inclinometers. Read slope inclinometer Nos. 2 and 4. Left the site at 6:00 p.m.
May 8, 1987	P. Costello and C. Conlon (GEI) arrived on site at 8:00 a.m. Read slope inclinometer Nos. 1, 3, 5, and 6. Left the site at 3:30 p.m.
June 22, 1987	P. Costello and C. Conlon (GEI) arrived on site at 11:00 a.m. Met with R. Snow (NED-CE). Performed settlement survey of inclinometers. Read slope inclinometer Nos. 1, 2, and 3. Left the site at 6:00 p.m.
June 23, 1987	P. Costello and C. Conlon (GEI) arrived on site at 8:00 a.m. Read slope inclinometer Nos. 4, 5, and 6. Left the site at 2:00 p.m.
October 5, 1987	P. Costello and W. Sturek (GEI) arrived on site at 11:30 a.m. Met with R. Snow (NED-CE). Performed settlement survey of inclinometers. Read slope inclinometer Nos. 3 and 5. Left the site at 5:30 p.m.
October 6, 1987	P. Costello and W. Sturek (GEI) arrived on site at 8:00 a.m. Read slope inclinometer Nos. 1, 2, 4, and 6. Left the site at 2:30 p.m.
November 18, 1987	S. Sarandis and W. Sturek (GEI) arrived on site at 10:30 a.m. Performed settlement survey of inclinometers. Read slope inclinometer Nos. 1, 2, and 3. Left site at 5:00 p.m.
November 19, 1987	S. Sarandis and W. Sturek (GEI) arrived on site at 7:30 a.m. Read slope inclinometer Nos. 4, 5, and 6. Left the site at 1:30 p.m.

APPENDIX B

SAFETY REPORTS

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for April 1, 1986 to June 28, 1986.

GEI	Steve Sarandis	48.0 manhours
	Mark Mahoney	16.0 manhours
	Mick McCaffrey	16.0

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whitney
GEI Project Manager

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for June 28, 1986 to September 10, 1986.

GEI	Steve Sarandis	32.0 manhours
	Steve Reich	16.0 manhours
	Ray Barry	16.0 manhours

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whitsitt
GEI Project Manager

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for September 10, 1986 to November 10, 1986.

GEI	Steve Sarandis	32 manhours
	Jeff Toothaker	16 manhours
	Paul Costello	16 manhours

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whitcomb
GEI Project Manager

GEOTECHNICAL ENGINEERS INC.

WEEKLY SAFETY MEETING
BALL MOUNTAIN DAM

TO: Safety Office, NED

FROM: Field Engineer

THRU: Project Manager

Contract No. DACW 33-85-D-0010

1. Exposure: Total on-site exposure hours for November 10, 1986 to June 23, 1987.

GEI	Paul Costello	32 manhours
	Charles Conlon	32 manhours

2. Forwarded: NED, Waltham, MA

Signature: Stephen L. Whitsed
GEI Project Manager

APPENDIX C

SCOPE OF WORK

SCOPE OF WORK

FOR

INCLINOMETER

MONITORING, DATA MANIPULATION & REPORTS AND PRE-SURVEY ANALYSIS

AT BALL MOUNTAIN DAM, JAMAICA, VERMONT

14 February 1986

1. PROJECT IDENTIFICATION.

a. Authority: The authority for this work is set forth in Corps of Engineers Regulation ER 1130-2-417, Project Operation Major Rehabilitation Program and Dam Safety Assurance Program, 30 November 1980.

2. PROJECT DESCRIPTION.

a. The project site consists of a dam and reservoir constructed on the West River, two miles north of the village of Jamaica, VT, 9.5 miles upstream of the Townshend Flood Control Dam and 29 miles upstream of the confluence of the Connecticut and West Rivers in Brattleboro, VT. Construction of the project was started in 1957 and completed in November 1961. Ball Mountain Dam is a rolled earth and rockfill structure, 915 feet in length with a maximum height of 265 feet above the river bed. The crest elevation is 1,052 feet NGVD which provides a thirty foot spillway surcharge and five feet of freeboard. The top width of the dam is twenty feet and the slopes vary between 1V on 2H and 1V on 2.5H on the upstream face and 1V on 1.75H on the downstream face. The normal pool stage maintained is 65 feet (el. 870.). The winter pool stage is maintained at 25 feet (el. 830) and the stage at which the flood in June 1984 crested was 193.1 feet (el. 998.6).

There is a bulge in the downstream slope and settlement of the crest of the dam. These irregularities have been noted in inspection reports for the past twenty years (1963, 1975, 1978, and 1982). However, no definite conclusions as to embankment movement has been made due to the lack of standardization in the measurement and survey techniques used to date. Six inclinometers were installed between October 1985 and January 1986 for this reason.

b. Services required under this delivery order includes Inclinometer Monitoring, Data Manipulation & Reports, and a Pre-Survey Analysis of survey monuments.

3. A/E SERVICES.

a. Inclinometer Monitoring.

Furnish a Geotechnical Engineer and a Geotechnical Technician to provide monthly on-site readings of six inclinometer located on the downstream slope of Ball Mountain Dam. Readings shall be performed utilizing a SINCO series 200B Slope Indicator or similar. This instrument shall be used and maintained (calibrated) in accordance with the manufacturer's instructions for proper operation. In the event that a monthly reading cannot be performed due to weather conditions, readings shall recommence at the earliest possible date. Subsequent readings shall be spaced one month apart. A total of twelve (12) readings are required.

5. COMPLETION SCHEDULE.

Services under this delivery order shall start on or about 10 March 1986. Duration of delivery order is estimated to be 18 months. Copies of instrumentation readings should be submitted within fourteen days after completion of each field trip. Two copies of the geotechnical report shall be submitted in draft format for both the interim and final reports for review by the Government no later than twenty-one calendar days after completion of sixth and twelfth monthly reading. The Pre-Survey Analysis results shall be submitted within one month from the commencement date. Review will take approximately ten calendar days from receipt of draft report. Three copies of the final geotechnical report shall be submitted no later than seven calendar days after receipt of draft report including the action taken on possible comments.

6. QUALITY CONTROL.

Your attention is invited to the Contract General Provisions, "Responsibility of the Architect-Engineer" and "Design Within Funding Limitations". You will be held responsible for the quality of the maps submitted and for all damages caused the Government as a result of your negligence in the performance of any services furnished under the contract.

Although submissions required by your contract are technically reviewed by the Government, it is emphasized that your work must be prosecuted using proper internal controls and review procedures. The letter of transmittal for each submission which you make shall include a certification that the submission has been subjected to your own review and coordination procedures to insure (a) completeness for each discipline commensurate with the level of effort required for that submission, (b) elimination of conflicts, errors and omissions, and (c) the overall professional and technical accuracy of the submission. Documents which are significantly deficient in any of these areas will be returned to you for correction and/or upgrading prior to our completing our review. Contract submission dates will not be extended if a resubmission of draft material is required for this reason. It is requested that you indicate in writing in your fee proposal letter your cognizance of this requirement and that your firm and your associates, if any, have the professional competency and technical expertise necessary to accomplish this project in a satisfactory manner.

b. Data Submission.

Data submission of field data shall be submitted after each monthly field trip. Data shall include but not be limited to inclinometer readings.

c. Data Manipulation.

Data from monthly readings shall be manipulated in such a manner that any lateral movement of the embankment that may occur during the duration of this delivery order can be detected. The existence of any possible shear planes shall also be located. Results shall be given in both graphical and tabulated form.

d. Presurvey Analysis.

An analysis to determine the network accuracy of the survey monuments and control points located on the crest downstream slope and abutments of Ball MountainDam shall be performed. This analysis will determine the highest degree of accuracy possible in an upcoming monitoring program. The results of this analysis shall include a plan showing horizontal angles from pillars to monuments.

e. Geotechnical Reports.

Two geotechnical reports shall be prepared and submitted which presents the results of the inclinometer monitoring and data manipulation phases of this delivery report.

(1) Interim Report. This report shall include all information to date. The data and results shall be presented in graphical and tabular form and include a discussion of the results. The methodology used to obtain and reduce field data shall be presented in an independent portion of the report. In addition to the technical portion of the report, the scope of investigation, summary of daily field activities and safety reports shall be included in the report.

(2) Final Report. This report shall include all information from the Interim Report and subsequent data. The format shall be the same as for the Interim Report.

4. COORDINATION.

Each monthly field trip must be coordinated with the Project Manager at the site: Mr Ralph Snow at 802-874-4881 prior to departure.

Liaison will be maintained for the duration of the delivery order through telephone contacts and meetings held at the request of the point of contact, Mr. Paul L'Heureux.

```
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  565 -492  178 -163
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  420 -351  -87   94
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  381 -295  352 -328
  417 -332  328 -307
  445 -362  339 -328
  510 -425  340 -317
  564 -477  269 -240
  550 -462  160 -140
  530 -443  115  -97
  596 -510   60  -50
  608 -526  -42   61
  522 -438 -103  114
  454 -373 -210  218
  370 -284 -204  205
  274 -191  -95  111
  214 -129   37  -17
  205 -121  142 -116
  259 -174  186 -159
  316 -236  289 -266
  348 -266  281 -254
  422 -341  261 -229
  511 -429  242 -228
  538 -457  240 -212
  552 -470  227 -207
  563 -481  202 -181
  569 -487  171 -150
  558 -476  123 -112
  523 -440   82  -68
  537 -454   51  -35
  526 -441   28  -22
  471 -389   -9   40
  447 -362  -79   88
  421 -340  -82  112
  394 -309  -71   97
  386 -301  -57   81
  391 -308  -26   53
  394 -310   75  -44
  429 -349  105  -86
  388 -304  129  -91
  307 -223  122  -96
  255 -173  162 -140
  205 -123  225 -198
  165  -83  246 -224
  120  -35  247 -210
   68   12  195 -166
    6   74  188 -181
  -43  123  216 -199
  -27  111  244 -222
  -15   95  235 -212
   18   64  241 -216
   20   62  253 -221
  130  -52  236 -217
  161  -84  284 -262
  196 -115  287 -266
  275 -196  319 -293
  327 -253  355 -340
  375 -293  384 -371
  361 -282  339 -315
  358 -277  221 -203
  336 -256  173 -151
  329 -248  123  -99
  274 -191  145 -114
  179 -101  147 -117
   58   29   74  -45
 -394  474  -50   96
 -666  750 -139  195
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```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-1
860716 2 010000    0    -910.2    1044.2   .000050   .000050       24.
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  423 -330  337 -324
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  515 -419  358 -316
  571 -474  269 -248
  558 -463  160 -138
  535 -442  117  -95
  602 -505   83  -54
  619 -523  -29   57
  532 -437  -87  106
  464 -372 -194  211
  380 -284 -200  225
  285 -190 -101  122
  221 -126   33   -4
  209 -115  151 -116
  263 -175  188 -159
  319 -236  293 -266
  353 -265  289 -257
  427 -337  260 -236
  516 -425  254 -229
  546 -453  243 -219
  558 -465  234 -212
  570 -477  210 -184
  575 -483  177 -153
  565 -473  130 -112
  529 -434   93  -76
  542 -448   58  -35
  532 -440   41  -15
  477 -386  -15   40
  455 -362  -72  106
  429 -338  -85  115
  400 -308  -68  102
  391 -300  -53   87
  396 -303  -32   55
  398 -304   69  -48
  435 -343  117  -90
  395 -303  107  -94
  312 -218  126  -99
  261 -169  170 -143
  212 -119  226 -199
  172  -77  257 -228
  125  -30  248 -218
   74   20  195 -167
   12   81  199 -173
  -37  131  222 -198
  -20  116  246 -217
   -9  101  241 -215
   24   70  248 -224
   27   67  250 -225
  136  -42  245 -221
  168  -79  293 -259
  200 -108  291 -261
  280 -187  327 -298
  334 -244  364 -340
  383 -288  390 -368
  365 -273  343 -308
  362 -268  227 -199
  342 -252  167 -152
  334 -244  117 -105
  279 -186  140 -108
  186  -96  150 -116
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  384 -296  350 -322
  419 -328  331 -305
  450 -363  377 -333
  510 -421  372 -327
  568 -477  292 -248
  554 -464  177 -136
  531 -442  141  -95
  599 -507   83  -53
  615 -527  -22   65
  528 -440  -84  112
  461 -375 -185  221
  378 -287 -178  229
  282 -193  -65  129
  217 -130   76    6
  204 -120  191 -108
  257 -173  225 -153
  316 -235  329 -260
  348 -265  316 -255
  421 -338  289 -232
  512 -427  266 -231
  542 -457  250 -216
  555 -469  243 -211
  566 -481  216 -181
  573 -487  185 -149
  563 -477  142 -108
  525 -436  101  -69
  538 -452   69  -30
  530 -442   52  -14
  475 -388    4   39
  450 -362  -50  114
  427 -339  -58  122
  399 -310  -47  112
  389 -302  -27   88
  394 -307  -10   67
  395 -307   98  -47
  430 -347  132  -93
  394 -311  140  -92
  308 -223  151  -97
  257 -173  208 -147
  207 -124  277 -201
  168  -83  314 -224
  120  -37  310 -213
   69   15  257 -165
    8   77  260 -165
  -43  128  291 -194
  -26  112  319 -218
  -14   96  312 -215
   19   64  315 -221
   21   63  314 -221
  132  -48  300 -221
  164  -85  339 -255
  197 -114  341 -258
  278 -194  368 -288
  330 -251  396 -334
  382 -297  419 -372
  363 -280  371 -308
  362 -275  256 -196
  342 -259  207 -153
  331 -248  161  -96
  278 -193  181 -106
  183 -103  192 -110
   62   23  131  -47
 -395  475   53   82
 -664  750   -6  164
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```

```
86-0922 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-1
860922 2 010000    0    -910.2    1044.2   .000050   .000050       24.
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  380 -293  352 -329
  416 -328  340 -304
  448 -364  353 -330
  510 -423  362 -315
  565 -478  275 -239
  553 -464  167 -130
  529 -441  130  -93
  594 -506   85  -56
  615 -525  -32   66
  527 -434  -85  118
  460 -373 -190  216
  377 -285 -199  231
  279 -190  -97  132
  216 -127   33    1
  205 -124  144 -115
  259 -172  179 -150
  318 -234  291 -251
  351 -263  282 -253
  425 -336  257 -231
  515 -420  244 -217
  545 -446  243 -208
  559 -463  234 -199
  569 -476  208 -174
  574 -485  169 -147
  566 -475  124 -108
  532 -433   89  -71
  542 -451   54  -28
  533 -440   36  -12
  476 -387  -22   42
  457 -361  -75  112
  429 -339  -82  119
  406 -309  -69  112
  400 -300  -52   93
  407 -307  -31   62
  402 -308   72  -40
  430 -347  109  -80
  396 -311  124  -84
  308 -221  128  -88
  255 -170  167 -133
  205 -124  220 -192
  164  -83  254 -225
  117  -31  244 -208
   66   17  195 -160
    4   83  198 -163
  -46  129  223 -191
  -28  107  248 -213
  -16   95  239 -208
   19   62  251 -219
   18   63  252 -215
  133  -46  247 -214
  162  -90  288 -253
  198 -110  293 -255
  276 -191  331 -289
  326 -249  369 -332
  378 -294  385 -359
  360 -283  342 -303
  357 -281  227 -195
  339 -264  178 -144
  328 -243  132  -94
  274 -194  143 -108
  188 -112  144 -100
   63   23   73  -38
 -395  468  -46  103
 -664  742 -109  178
99999999999999999999999999.
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```
86-1108 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-1
861108 2 010000    0    -910.2    1044.2   .000050   .000050       24.
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 +382 -300 +380 -361
 +379 -293 +348 -332
 +417 -331 +335 -314
 +448 -361 +357 -332
 +509 -424 +354 -322
 +566 -476 +270 -245
 +551 -462 +158 -141
 +529 -443 +118  -98
 +596 -507  +79  -51
 +611 -525  -28  +56
 +523 -436  -84 +111
 +458 -372 -190 +220
 +373 -283 -197 +221
 +277 -190  -95 +118
 +214 -128  +37   -8
 +204 -119 +148 -117
 +258 -172 +184 -154
 +318 -235 +294 -262
 +348 -263 +279 -254
 +420 -338 +256 -229
 +511 -427 +255 -218
 +541 -454 +248 -210
 +552 -467 +243 -201
 +564 -478 +208 -174
 +570 -484 +174 -153
 +560 -475 +131 -113
 +523 -438  +93  -72
 +537 -452  +59  -38
 +528 -439  +40  -16
 +472 -386  -16  +39
 +450 -360  -73 +108
 +424 -338  -83 +118
 +396 -308  -67 +107
 +389 -300  -50  +89
 +393 -306  -34  +52
 +393 -307  +79  -50
 +430 -347 +116  -88
 +396 -310 +122  -89
 +306 -220 +132  -98
 +255 -170 +174 -148
 +206 -120 +224 -200
 +168  -80 +256 -227
 +120  -31 +244 -215
  +70  +16 +196 -163
   +6  +78 +186 -170
  -43 +127 +216 -198
  -24 +110 +247 -222
  -12  +97 +241 -215
  +23  +63 +250 -225
  +23  +63 +251 -223
 +134  -49 +247 -219
 +164  -83 +289 -257
 +198 -112 +294 -259
 +279 -192 +331 -295
 +331 -248 +366 -338
 +382 -292 +394 -367
 +363 -280 +340 -312
 +360 -275 +224 -201
 +341 -258 +176 -152
 +331 -249 +122 -106
 +277 -191 +135 -117
 +183 -100 +137 -106
  +62  +26  +64  -41
 -386 +473  -89  +87
 -657 +751 -160 +141
99999999999999999999999.
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```
87-0508 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-1
870508 2 010000    0    -910.2    1044.2   .000050   .000050       24.
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 +447 -361 +336 -341
 +504 -411 +356 -329
 +567 -474 +281 -258
 +556 -464 +153 -143
 +527 -438 +122 -102
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 +616 -528  -43  +44
 +527 -438  -85  +95
 +465 -379 -200 +206
 +380 -292 -205 +214
 +282 -195 -104 +123
 +218 -129  +26   -4
 +206 -117 +142 -121
 +259 -170 +176 -163
 +320 -232 +288 -266
 +348 -260 +280 -260
 +418 -330 +250 -236
 +511 -424 +238 -230
 +542 -452 +235 -226
 +554 -464 +231 -229
 +565 -476 +201 -190
 +572 -484 +168 -157
 +563 -476 +120 -109
 +527 -435  +87  -73
 +541 -451  +53  -38
 +532 -441  +35  -18
 +474 -386  -22  +33
 +448 -359  -87  +96
 +424 -336  -92 +108
 +398 -308  -82  +97
 +388 -298  -65  +78
 +394 -305  -45  +48
 +403 -313  +65  -58
 +477 -389 +106  -97
 +461 -372  +97  -98
 +332 -242 +126 -116
 +215 -218 +173 -149
 +206 -118 +221 -212
 +167  -77 +243 -240
 +119  -30 +240 -225
  +72  +16 +186 -174
   +8  +80 +188 -180
  -42 +130 +210 -202
  -22 +112 +244 -229
  -13 +102 +235 -220
  +26  +64 +249 -232
  +22  +68 +244 -227
 +131  -41 +237 -224
 +162  -74 +267 -266
 +197 -106 +279 -270
 +279 -186 +314 -300
 +333 -243 +354 -343
 +382 -289 +376 -373
 +369 -278 +330 -320
 +363 -272 +214 -206
 +345 -253 +166 -159
 +334 -244 +108 -104
 +279 -188 +117 -108
 +186  -97 +129 -112
  +66  +26  +58  -52
 -383 +473  -65  +80
 -661 +751 -136 +149
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```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-1
870622 2 010000    0    -910.2    1044.2   .000050   .000050       24.
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 +404 -337 +360 -291
 +439 -378 +371 -312
 +483 -420 +367 -297
 +553 -490 +306 -246
 +543 -483 +167 -115
 +513 -453 +142  -77
 +584 -522 +117  -41
 +606 -539  -10  +77
 +517 -458  -53 +123
 +461 -397 -166 +234
 +377 -312 -179 +246
 +276 -214  -82 +159
 +205 -144  +44  +30
 +192 -132 +155  -87
 +244 -183 +198 -142
 +303 -248 +307 -229
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 +402 -341 +278 -209
 +498 -433 +271 -206
 +525 -466 +268 -195
 +541 -476 +255 -179
 +553 -492 +235 -160
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 +520 -457  +65  +12
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 +415 -352  -64 +133
 +388 -323  -51 +119
 +377 -314  -33 +103
 +385 -314  -20  +95
 +389 -327 +102  -20
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 +322 -261 +155  -85
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  156  -93  278 -194
  107  -45  260 -185
   61    2  219 -137
    2   65  217 -139
  -54  117  240 -166
  -33  100  271 -198
  -26   88  271 -186
   13   51  282 -197
    8   54  278 -196
  115  -54  264 -186
  150  -88  305 -226
  185 -119  314 -229
  265 -200  344 -264
  318 -257  387 -301
  371 -343  413 -305
  355 -293  370 -284
  351 -286  247 -171
  331 -270  203 -126
  320 -259  148  -74
  270 -200  146  -76
  177 -115  171  -87
   55   10  101  -17
 -395  455  -37  132
 -672  735 -111  222
999999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-1
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 +403 -401 +335 -347
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 +515 -514 +260 -290
 +508 -506 +147 -168
 +480 -477 +108 -134
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 +569 -568  -52  +32
 +482 -479  -93  +73
 +422 -422 -204 +178
 +339 -336 -218 +190
 +240 -238 -130 +111
 +172 -168   -8  -18
 +160 -157 +111 -134
 +213 -209 +158 -174
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 +370 -366 +239 -255
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 +492 -491 +226 -240
 +506 -502 +220 -232
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   72  -69  209 -239
   28  -24  167 -189
  -36   40  165 -189
  -87   89  196 -213
  -67   69  219 -236
  -60   59  215 -230
  -18   21  227 -245
  -23   25  223 -242
   82  -79  220 -237
  116 -117  255 -278
  151 -147  260 -279
  230 -226  296 -318
  281 -281  336 -364
  338 -330  366 -376
  322 -319  317 -335
  318 -313  199 -226
  304 -300  152 -170
  290 -286  106 -130
  239 -230  113 -124
  144 -142  120 -132
   24  -17   43  -64
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```
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  519 -512  250 -283
  509 -504  140 -160
  482 -478  110 -134
  549 -543   63  -85
  568 -566  -52   40
  478 -475 -107   75
  420 -418 -209  181
  334 -329 -217  191
  237 -232 -126  102
  173 -166    2  -27
  163 -160  120 -150
  217 -211  162 -179
  274 -270  265 -282
  304 -294  260 -281
  375 -370  240 -255
  468 -462  233 -245
  495 -490  266 -242
  507 -501  218 -233
  519 -515  189 -206
  525 -520  153 -171
  518 -514  113 -135
  480 -474   74  -91
  495 -490   41  -63
  485 -479   17  -36
  430 -424  -34   14
  405 -400  -96   73
  381 -378 -112   79
  354 -349  -99   70
  345 -341  -82   52
  350 -345  -67   46
  360 -355   49  -64
  437 -433   95 -106
  423 -416   92 -121
  289 -282  108 -135
  213 -207  141 -173
  163 -157  218 -217
  123 -117  224 -250
   73  -68  211 -241
   29  -23  166 -188
  -36   40  165 -188
  -85   89  190 -213
  -64   69  219 -237
  -58   61  215 -235
  -18   21  223 -245
  -20   27  222 -246
   83  -79  219 -235
  117 -116  258 -272
  151 -146  262 -280
  230 -225  298 -316
  284 -281  339 -357
  338 -330  363 -378
  325 -320  318 -342
  320 -312  204 -232
  305 -298  158 -180
  290 -285  107 -132
  240 -229  109 -126
  145 -143  120 -131
   27  -18   46  -99
 -420  429  -89   51
 -696  703 -151  111
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```

```
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  281 -170 -789  803
  295 -183 -737  760
  299 -187 -688  703
  245 -133 -617  638
  218 -106 -547  570
  230 -119 -445  461
  271 -160 -349  359
  285 -174 -262  278
  272 -160 -228  266
  259 -149 -240  261
  208  -97 -293  304
  177  -69 -408  444
  175  -66 -497  520
  161  -49 -563  605
  105    4 -595  630
   67   46 -613  644
   57   53 -624  651
   65   46 -633  666
  104   10 -640  670
  120   -8 -578  608
  142  -30 -540  579
  133  -25 -488  511
  117   -5 -413  432
  110    3 -350  385
   77   40 -250  276
   50   62 -144  177
  150  -39 -119  152
  330 -218 -112  151
  393 -282  -95  111
  409 -296 -111  118
  406 -293  -13   40
  377 -265   54  -28
  311 -199  106  -76
  245 -132  146 -125
  225 -110  203 -176
  175  -65  212 -190
   55   52  133  -94
  -80  193   -3   42
 -193  306  -24   49
 -208  320  161 -125
 -100  211  292 -248
   29  178  296 -265
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  261 -209 -794  805
  276 -216 -744  757
  282 -220 -697  695
  228 -170 -630  643
  200 -139 -550  552
  210 -149 -455  466
  249 -185 -350  374
  261 -196 -274  287
  255 -185 -232  260
  236 -173 -230  250
  185 -122 -282  301
  158  -91 -413  426
  156  -93 -487  492
  140  -73 -572  575
   90  -24 -594  612
   45   20 -610  617
   35   29 -632  640
   39   27 -635  654
   82  -11 -642  650
   98  -29 -572  590
  119  -47 -546  568
  113  -48 -491  497
   96  -27 -420  438
   89  -18 -357  356
   54   16 -244  266
   27   39 -149  166
  127  -59 -106  131
  308 -240  -87  135
  373 -305 -105  113
  386 -319 -105  126
  384 -316   -3   27
  357 -289   53  -37
  291 -223  101  -77
  224 -156  148 -124
  203 -133  207 -191
  158  -89  219 -203
   34   34  123 -112
 -101  170  -15   30
 -214  282  -30   39
 -231  299  154 -141
 -133  202  310 -286
 -112  192  433 -398
99999999999999999999999.
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86-0513 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860513 2 010000    0    -910.5    1002.5   .000050   .000050       24.
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  345 -269 -719  733
  292 -217 -824  828
  267 -188 -792  814
  282 -199 -734  764
  287 -209 -682  717
  235 -155 -618  659
  206 -126 -537  569
  213 -136 -444  484
  254 -175 -347  380
  267 -191 -256  283
  261 -180 -229  267
  245 -168 -220  250
  195 -119 -268  312
  161  -84 -420  436
  163  -87 -471  501
  143  -66 -564  589
   96  -19 -586  613
   51   29 -602  639
   38   37 -615  649
   40   34 -638  664
   85   -7 -641  675
  103  -27 -580  607
  123  -45 -552  582
  114  -40 -484  511
  102  -24 -403  442
   93  -14 -344  385
   57   20 -242  281
   31   45 -140  177
  131  -53 -111  134
  311 -234  -99  136
  376 -300  -83  107
  390 -313  -94  123
  389 -310   -1   13
  360 -281   63  -35
  294 -215  112  -70
  225 -148  155 -127
  205 -126  212 -174
  162  -83  228 -180
   36   39  137 -101
  -98  175    3   39
 -210  286  -27   55
 -229  306  166 -132
 -130  209  301 -277
  -50  143  400 -393
999999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860616 2 010000    0    -910.5    1002.5   .000050   .000050       24.
  284 -205 -599  625
  350 -265 -712  734
  296 -212 -799  828
  270 -184 -784  812
  285 -192 -735  770
  290 -204 -682  711
  240 -149 -614  660
  210 -120 -535  562
  217 -130 -442  483
  254 -169 -318  379
  267 -183 -254  296
  262 -176 -231  250
  245 -162 -233  260
  197 -111 -268  316
  163  -80 -412  434
  163  -81 -471  506
  144  -64 -557  582
  100  -15 -593  625
   52   31 -609  633
   40   42 -615  655
   40   40 -629  673
   88   -2 -638  678
  103  -20 -565  608
  123  -38 -541  582
  119  -34 -480  512
  102  -18 -407  449
   95   -9 -343  375
   59   26 -241  271
   32   50 -148  163
  135  -49  -99  138
  312 -230 -111  134
  377 -294  -83  121
  391 -309 -100  135
  392 -309    7   30
  364 -279   61  -23
  298 -213  107  -66
  228 -143  151 -115
  207 -123  211 -189
  168  -85  216 -181
   41   43  136 -106
  -96  180   -5   44
 -202  287  -18   40
 -230  313  170 -139
 -129  209  309 -277
   50  143  400 -393
999999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860716 2 010000    0    -910.5    1002.5   .000050   .000050       24.
  286 -220 -610  621
  347 -274 -717  735
  291 -225 -810  823
  268 -196 -799  810
  281 -207 -742  767
  285 -215 -685  710
  234 -162 -619  658
  205 -134 -549  578
  211 -145 -455  470
  250 -181 -348  372
  265 -198 -257  280
  260 -187 -230  253
  244 -174 -227  252
  196 -126 -266  300
  159  -87 -407  425
  160  -91 -479  512
  139  -71 -566  594
   95  -25 -593  625
   48   22 -615  637
   38   32 -624  655
   37   31 -632  662
   85  -14 -640  670
  100  -31 -570  590
  118  -48 -544  573
  112  -45 -488  513
   99  -27 -410  445
   91  -17 -356  382
   56   16 -249  271
   28   42 -145  159
  128  -57 -115  131
  311 -238 -104  145
  377 -304  -88  132
  391 -318  -97  116
  394 -320    7   21
  363 -291   59  -37
  295 -224  104  -73
  222 -153  148 -137
  203 -131  215 -190
  165  -94  214 -186
   38   33  134 -118
  -99  170  -10   36
 -206  275  -20   37
 -237  307  161 -136
 -137  205  306 -278
  -52  122  355 -319
99999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860819 2 010000    0    -910.5    1002.5   .000050   .000050       24.
  293 -207 -603  628
  354 -268 -708  728
  301 -211 -800  831
  274 -183 -784  814
  288 -195 -737  768
  295 -204 -681  721
  244 -152 -625  655
  213 -122 -544  580
  221 -132 -450  473
  261 -170 -345  374
  274 -186 -258  283
  270 -176 -226  264
  253 -163 -220  260
  204 -115 -270  312
  167  -77 -402  430
  169  -81 -475  512
  149  -61 -560  588
  107  -17 -598  626
   58   32 -603  644
   47   42 -626  660
   44   43 -628  667
   96   -5 -640  672
  112  -22 -570  606
  126  -36 -545  583
  121  -36 -484  510
  109  -21 -412  441
   97   -9 -346  382
   63   24 -241  267
   37   50 -139  172
  139  -49 -110  143
  319 -230 -101  140
  384 -295  -84  117
  400 -310  -96  137
  403 -313   10   23
  372 -283   63  -33
  304 -214  103  -65
  231 -140  152 -137
  212 -120  221 -185
  176  -85  217 -178
   46   43  135 -105
  -91  180   -6   40
 -197  286  -30   54
 -228  316  164 -132
 -130  217  311 -275
  -47  138  398 -370
99999999999999999999999.
```

```
8 -6-0922 BALL MOUNTAIN DAM, JAMAICA VT,  SI-85-2
860922 2 010000    0    -910.5    1002.5   .000050   .000050       24.
  293 -208 -614  632
  355 -265 -718  737
  299 -211 -802  835
  274 -182 -780  813
  287 -195 -734  762
  292 -200 -683  716
  242 -152 -620  647
  212 -120 -542  572
  220 -133 -449  463
  260 -170 -344  362
  273 -183 -260  288
  268 -174 -223  266
  252 -162 -226  263
  203 -113 -276  306
  166  -79 -406  432
  167  -77 -488  514
  146  -57 -572  589
  106  -14 -600  627
   56   34 -614  639
   44   43 -627  659
   41   42 -630  660
   97   -5 -646  672
  111  -22 -565  602
  121  -32 -542  581
  121  -33 -481  509
  109  -21 -408  446
   95   -4 -347  382
   64   28 -246  280
   37   52 -137  166
  140  -53 -106  143
  320 -231  -97  138
  382 -293  -84  124
  397 -309 -101  136
  401 -311   12   17
  370 -280   58  -27
  303 -211   97  -64
  230 -139  151 -121
  210 -120  211 -178
  174  -84  224 -176
   45   45  129 -102
  -92  182   -7   42
 -196  289  -18   45
 -226  317  175 -138
 -132  222  315 -284
  -30  148  399 -361
99999999999999999999999.
```

```
86-1108 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-2
861108 2 010000    0    -910.5    1002.5   .000050   .000050       24.
 +289 -210 -598 +628
 +350 -270 -712 +732
 +296 -215 -805 +830
 +270 -188 -782 +801
 +282 -196 -733 +762
 +286 -202 -690 +716
 +237 -154 -618 +645
 +207 -123 -542 +562
 +216 -134 -450 +480
 +257 -172 -346 +376
 +270 -188 -252 +272
 +266 -177 -231 +267
 +249 -166 -216 +254
 +201 -116 -281 +298
 +162  -81 -404 +428
 +165  -81 -472 +513
 +141  -62 -566 +586
 +105  -21 -592 +622
  +52  +30 -605 +639
  +42  +38 -631 +660
  +39  +42 -622 +660
  +95   -9 -644 +680
 +110  -27 -566 +601
 +118  -34 -548 +584
 +118  -38 -481 +512
 +108  -25 -414 +449
  +93   -7 -345 +360
  +62  +24 -247 +259
  +34  +48 -149 +163
 +136  -53 -110 +141
 +315 -234 -107 +127
 +377 -298 -103 +127
 +394 -314 -103 +115
 +396 -316   -3  +17
 +366 -282  +54  -44
 +299 -216  +94  -71
 +227 -146 +145 -123
 +207 -125 +210 -183
 +172  -89 +221 -187
  +43  +39 +140 -104
  -93 +176   -8  +34
 -199 +281  -21  +41
 -228 +311 +172 -136
 -134 +216 +318 -288
  -31 +121 +395 -315
99999999999999999999999.
```

```
87-0508 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-2
870508 2 010000    0    -910.5    1002.5   .000050   .000050       24.
 +300 -222 -600 +631
 +354 -275 -705 +728
 +304 -255 -797 +833
 +278 -193 -784 +820
 +288 -200 -738 +777
 +296 -213 -692 +714
 +247 -160 -621 +649
 +216 -131 -543 +576
 +220 -136 -450 +478
 +260 -184 -345 +380
 +272 -216 -255 +288
 +274 -220 -229 +257
 +255 -210 -215 +246
 +208 -173 -270 +301
 +166 -140 -405 +424
 +169 -109 -476 +508
 +145  -82 -562 +593
 +119  -51 -589 +623
  +52  +17 -608 +632
  +46  +22 -627 +659
  +40  +26 -629 +657
  +96  -27 -647 +673
 +115  -51 -568 +593
 +117  -52 -547 +579
 +122  -63 -483 +514
 +109  -48 -419 +436
  +91  -29 -350 +374
  +62    0 -246 +268
  +37  +25 -147 +171
 +135  -72 -107 +142
 +316 -257 -110 +137
 +380 -320  -98 +118
 +396 -335 -105 +137
 +398 -333   +5  +25
 +366 -281  +58  -38
 +300 -214  +94  -67
 +228 -142 +137 -129
 +208 -123 +213 -185
 +174  -87 +217 -187
  +44  +41 +124 -108
  -94 +179  -15  +41
 -198 +283  -30  +40
 -224 +308 +163 -141
 -130 +214 +307 -281
   -4  +93 +396 -360
99999999999999999999999.
```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-2
870622 2 010000     0    -910.5    1002.5   .000050   .000050       24.
 +294 -225 -577 +655
 +346 -278 -674 +751
 +296 -229 -781 +852
 +268 -198 -763 +838
 +279 -206 -714 +799
 +297 -216 -668 +746
 +240 -167 -597 +681
 +208 -134 -520 +606
 +213 -143 -424 +506
 +253 -180 -321 +405
 +264 -199 -236 +306
 +266 -194 -208 +290
 +248 -176 -202 +275
 +201 -131 -247 +328
 +159  -92 -372 +442
 +167  -96 -463 +536
 +139  -70 -538 +622
 +115  -42 -563 +654
  +47  +22 -578 +665
  +42  +29 -604 +685
  +36  +35 -600 +678
  +93  -19 -626 +696
 +109  -37 -545 +626
 +111  -41 -521 +607
 +116  -48 -461 +536
 +105  -31 -394 +469
  +88  -13 -329 +405
  +61  +15 -229 +300
  +32  +40 -123 +206
 +129  -55  -90 +170
 +309 -238  -85 +163
 +374 -303  -74 +155
 +393 -321  -82 +160
 +392 -322  +27  +55
 +364 -291  +78   -2
 +299 -225 +120  -36
 +223 -152 +169  -89
 +205 -136 +241 -160
 +171 -102 +237 -158
  +40  +31 +153  -84
  -98 +169  +15  +64
 -200  271   -7   82
 -231  302  185 -112
 -132  202  333 -257
  -11   86  405 -339
99999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-2
871006 2 010000    0    -910.5    1002.5   .000050   .000050       24.
 +264 -361 -620 +600
 +319 -315 -719 +694
 +268 -265 -805 +795
 +240 -234 -794 +783
 +252 -243 -756 +742
 +259 -251 -706 +689
 +211 -203 -636 +624
 +177 -173 -555 +547
 +181 -177 -458 +454
 +220 -215 -357 +343
 +233 -231 -272 +258
 +235 -227 -249 +236
 +216 -213 -240 +215
 +170 -166 -300 +275
 +128 -125 -411 +411
 +132 -133 -501 +474
 +109 -106 -581 +557
  +90  -84 -607 +588
  +18  -16 -629 +609
  +10  -10 -648 +633
   +1   +0 -636 +632
  +63  -58 -657 +650
  +83  -78 -582 +574
  +76  -73 -560 +557
  +83  -81 -478 +484
  +75  -70 -433 +411
  +53  -48 -347 +345
  +26  -21 -262 +246
   +0   +3 -167 +155
 +100  -92 -130 +115
 +277 -274 -121 +115
 +342 -337 -108 +112
 +362 -357 -107 +109
 +361 -355   +6   +0
 +330 -325  +41  -50
 +262 -257  +77  -88
 +189 -184 +142 -140
 +169 -164 +199 -214
 +137 -133 +190 -214
   +5   -2 +110 -133
 -132 +136  -32  +16
 -234  238  -52   34
 -264  269  140 -159
 -160  162  285 -307
  -66   66  360 -370
999999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-2
871118 2 010000    0    -910.5    1002.5   .000050   .000050       24.
  267 -261 -623  606
  321 -313 -716  700
  269 -260 -806  795
  242 -228 -798  788
  253 -242 -760  740
  260 -247 -710  693
  212 -200 -642  622
  178 -169 -568  543
  181 -177 -475  450
  220 -215 -370  346
  235 -230 -278  258
  236 -222 -250  237
  218 -210 -243  220
  171 -161 -295  278
  132 -125 -413  404
  133 -131 -494  474
  110 -103 -583  559
   92  -83 -614  589
   21  -14 -634  608
   12   -7 -650  632
    2    2 -640  630
   68  -58 -669  650
   87  -77 -589  572
   81  -72 -571  555
   86  -80 -505  482
   78  -70 -436  414
   55  -46 -379  355
   28  -18 -283  251
    3   -5 -179  157
  103  -94 -132  125
  279 -274 -129  114
  344 -336 -122  112
  363 -355 -107  109
  362 -351  -27    1
  331 -323   30  -51
  263 -254   67  -88
  190 -182  129 -139
  176 -164  194 -211
  138 -131  186 -216
    8   -1  106 -133
 -130  137  -37   17
 -232  239  -56   33
 -262  269  134 -161
 -160  165  289 -307
  -38   45  386 -404
999999999999999999999999.
```

```
86-0123 BALL MOUNTAIN DAM, JAIMACA, VT  SI-85-3  INITIAL READINGS
860123 1 110000     0    -905.9    1041.9    .000050    .000050        24.
    0   90 -923  928  0.0
    4   97 -882  888  0.0
   43   62 -867  876  0.0
   55   50 -828  846  0.0
  -18  120 -750  759  0.0
 -107  212 -671  699  0.0
 -113  224 -658  680  0.0
 -134  244 -635  653  0.0
 -178  293 -596  601  0.0
 -211  236 -577  602  0.0
 -145  244 -559  570  0.0
 -110  221 -523  560  0.0
  -64  177 -506  540  0.0
  -29  138 -489  500  0.0
   22  176 -462  481  0.0
   -1  109 -535  550  0.0
   27   81 -605  627  0.0
   37   72 -616  639  0.0
   74   35 -660  677  0.0
  155  -44 -691  705  0.0
  222 -116 -719  734  0.0
  214 -103 -729  747  0.0
  287 -178 -706  728  0.0
  299 -188 -659  677  0.0
  301 -191 -608  619  0.0
  246 -138 -582  601  0.0
  182  -74 -582  602  0.0
  134  -20 -634  643  0.0
   85   32 -664  684  0.0
    6  105 -672  697  0.0
  -23  131 -675  687  0.0
  -54  164 -612  627  0.0
  -63  172 -621  642  0.0
  -96  208 -577  589  0.0
 -110  219 -522  540  0.0
  -92  202 -514  528  0.0
  -33  143 -467  481  0.0
   26   79 -415  430  0.0
   42   65 -437  460  0.0
   73   33 -477  496  0.0
  181  -23 -485  500  0.0
  145  -35 -471  507  0.0
  160  -49 -515  533  0.0
  137  -26 -514  534  0.0
  116   -7 -515  546  0.0
  168  -60 -575  601  0.0
  204  -88 -496  522  0.0
  239 -128 -399  423  0.0
  177  -64 -185  193  0.0
   75   37   22    1  0.0
   26   83   99  -69  0.0
   13   96  -74   96  0.0
  -48  157 -309  332  0.0
 -106  216 -404  436  0.0
  -48  158 -464  496  0.0
  -31  144 -484  503  0.0
    8  104 -365  407  0.0
  111   -1 -298  327  0.0
   63   47 -242  271  0.0
   47   63 -254  270  0.0
 -105  216 -143  172  0.0
 -157  269  -85  125  0.0
 -100  210 -115  162  0.0
   10  100 -175  197  0.0
  123  -14 -185  200  0.0
  217 -106 -167  210  0.0
  364 -253 -264  307  0.0
999999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
871118 2 010000    0    -905.9    1041.9   .000050   .000050       24.
  -46    39 -937  918
  -34    42 -899  868
    3     3 -887  853
   12   -12 -837  828
  -58    57 -766  758
 -166   166 -666  654
 -167   174 -674  650
 -190   190 -653  632
 -227   234 -615  595
 -250   170 -574  573
 -178   186 -566  547
 -150   156 -538  525
 -109   120 -530  511
  -87    88 -497  486
  -23   125 -465  453
  -46    44 -547  529
  -14    17 -626  606
  -17    18 -628  623
   14   -13 -671  659
  106  -103 -695  683
  184  -182 -742  720
  166  -162 -738  719
  245  -241 -725  705
  247  -240 -672  653
  257  -251 -622  604
  198  -194 -598  584
  127  -127 -585  566
   76   -72 -630  623
   28   -24 -676  659
  -43    42 -686  661
  -84    85 -675  665
 -114   120 -619  611
 -124   127 -628  617
 -144   154 -596  574
 -163   167 -549  532
 -144   150 -527  514
  -79    85 -477  460
  -11    22 -450  420
    3     8 -481  444
   63   -24 -504  481
   95   -92 -480  494
   97   -96 -494  474
  112  -114 -513  490
  113  -113 -534  510
  103  -102 -538  517
  192  -193 -588  563
  218  -211 -522  498
  213  -209 -424  406
  128  -125 -213  173
   23   -18   -1  -29
    0     3   78 -100
  -59    62 -116   89
 -128   130 -330  312
 -168   168 -434  410
 -110   109 -472  461
  -90    93 -484  462
  -35    42 -391  367
   61   -59 -305  296
   10    -5 -276  251
  -11    18 -270  247
 -175   176 -171  148
 -219   222 -114   99
 -146   152 -139  126
  -13    14 -182  170
  105  -103 -202  181
  195  -190 -208  189
  297  -296 -284  284
999999999999999999999999.
```

```
86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860401 1 110000    0  -905.9    1041.9  .000050   .000050       24.
  -24   86 -940  938
  -17   86 -874  881
   19   48 -873  876
   29   39 -830  845
  -40  107 -748  751
 -131  199 -673  686
 -139  210 -662  678
 -161  227 -629  645
 -207  276 -594  599
 -238  218 -564  575
 -154  225 -552  572
 -131  203 -534  553
  -90  160 -506  532
  -56  125 -471  507
    1  157 -452  480
  -23   89 -540  551
    5   63 -610  627
   15   51 -621  650
   44   19 -674  684
  128  -65 -688  700
  196 -131 -724  741
  186 -118 -734  746
  264 -193 -712  739
  274 -202 -673  684
  279 -206 -609  634
  223 -150 -586  611
  153  -86 -576  603
  104  -34 -627  647
   51   19 -674  687
  -20   88 -670  696
  -52  125 -670  689
  -87  156 -608  635
  -96  165 -613  630
 -115  190 -577  594
 -138  209 -531  549
 -116  187 -514  518
  -54  124 -460  469
    5   61 -421  427
   23   46 -450  471
   54   16 -489  518
  122  -42 -486  526
  124  -54 -483  495
  139  -68 -513  533
  124  -52 -535  547
  109  -38 -525  546
  165  -95 -578  603
  201 -121 -497  516
  227 -157 -407  429
  157  -84 -186  211
   46   23   26   -9
    8   61  109  -86
  -17   88  -78   98
  -81  150 -314  327
 -132  200 -414  440
  -76  149 -474  490
  -58  134 -484  509
  -12   83 -367  394
   88  -18 -298  295
   40   31 -258  264
   21   49 -256  272
 -133  204 -144  149
 -183  255  -91  105
 -123  192 -125  145
  -10   82 -182  196
  106  -35 -181  204
  201 -128 -178  198
  330 -176 -271  293
999999999999999999999999.
```

```
86-0513 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860513 2 010000    0    -905.9    1041.9   .000050   .000050       24.
  -19   84 -881  940
  -13   91 -824  897
   24   53 -821  895
   32   38 -784  857
  -36  104 -692  758
 -133  203 -595  692
 -139  212 -596  688
 -161  232 -561  662
 -212  279 -523  622
 -247  224 -476  595
 -159  229 -483  573
 -134  203 -447  561
  -92  161 -420  524
  -60  125 -421  511
   -2  151 -387  461
  -27   91 -462  548
    0   63 -543  628
    8   57 -546  632
   43   24 -594  680
  125  -60 -633  711
  191 -128 -678  733
  185 -115 -687  752
  260 -192 -677  718
  270 -200 -626  686
  275 -208 -568  623
  219 -151 -542  611
  149  -86 -535  601
  100  -31 -580  651
   50   21 -615  697
  -21   87 -610  689
  -56  125 -597  696
  -90  158 -534  637
 -100  168 -535  641
 -119  193 -491  583
 -141  207 -440  551
 -121  188 -428  530
  -57  125 -385  474
    4   61 -352  424
   20   45 -378  470
   50   16 -422  515
  161   -4 -436  516
  120  -54 -427  499
  133  -68 -470  512
  119  -52 -471  549
  106  -38 -471  547
  162  -99 -529  593
  196 -124 -449  532
  224 -160 -364  410
  153  -87 -141  225
   46   17   88   10
   11   54  177  -69
  -17   83    8  103
  -82  151 -228  321
 -133  201 -326  441
  -78  149 -402  495
  -60  132 -407  510
  -16   83 -296  407
   84  -19 -247  298
   38   30 -185  271
   19   51 -190  276
 -134  205  -63  166
 -181  251   -8   61
 -121  189  -41  144
   -8   77 -109  175
  107  -39 -132  210
  206 -137 -148  213
99999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860616 2 010000    0    -905.9    1041.9   .000050    .000050       24.
  -12   85 -913  942
   -8   90 -863  898
   30   52 -860  900
   43   37 -826  841
  -35  109 -737  763
 -127  205 -653  686
 -129  211 -656  690
 -153  233 -628  650
 -196  281 -590  606
 -226  217 -555  613
 -144  228 -540  569
 -122  202 -530  551
  -80  162 -494  521
  -47  127 -470  516
  -13  155 -432  470
  -13   95 -539  554
   12   66 -613  633
   18   57 -620  636
   54   27 -657  683
  139  -61 -689  708
  207 -130 -715  737
  196 -114 -725  755
  275 -191 -709  730
  280 -198 -658  687
  288 -206 -626  629
  229 -146 -584  608
  161  -85 -565  594
  111  -30 -622  645
   57   23 -661  695
  -12   88 -659  693
  -46  125 -661  683
  -78  162 -600  640
  -88  170 -609  642
 -110  196 -564  595
 -129  209 -529  545
 -109  192 -502  532
  -45  131 -451  476
   16   68 -412  440
   30   50 -440  472
   61   19 -481  518
  124  -38 -483  530
  130  -49 -475  507
  146  -64 -504  534
  129  -50 -511  555
  116  -36 -513  552
  175  -96 -567  601
  208 -121 -483  534
  234 -153 -390  450
  157  -82 -175  233
   49   25   34    6
   16   61  120  -71
  -15   92  -68  111
  -79  157 -312  341
 -128  206 -420  452
  -71  154 -458  501
  -53  136 -469  516
   -5   86 -357  405
   96  -16 -287  317
   43   36 -240  277
   25   55 -247  269
 -133  209 -139  165
 -176  259  -90  116
 -112  194 -118  150
    3   79 -170  200
  115  -37 -179  217
  219 -134 -190  219
  330 -201 -249  273
99999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860716 2 010000    0    -905.9    1041.9   .000050   .000050       24.
    3   88 -912  946
   12   90 -866  899
   41   57 -857  890
   59   39 -835  853
   -5  101 -756  786
 -117  213 -651  682
 -119  219 -654  681
 -138  235 -634  659
 -182  284 -592  617
 -181  272 -562  606
 -139  236 -543  573
 -113  210 -521  556
  -72  171 -507  543
  -40  136 -481  516
   -4  121 -448  474
   -5  100 -527  554
   25   70 -603  634
   35   64 -611  643
   57   35 -643  675
  144  -50 -687  714
  218 -124 -715  744
  207 -115 -714  750
  279 -185 -699  739
  292 -196 -652  681
  298 -203 -600  626
  245 -149 -577  609
  173  -83 -563  595
  125  -27 -613  648
   75   23 -651  699
    0   92 -658  700
  -34  129 -659  694
  -70  164 -599  633
  -80  174 -612  647
  -98  198 -567  601
 -122  214 -516  553
 -103  197 -504  527
  -43  135 -453  477
   20   71 -403  431
   36   54 -433  475
   65   26 -486  517
  178    3 -480  511
  138  -47 -462  503
  152  -59 -492  538
  141  -45 -516  556
  127  -33 -518  548
  179  -88 -561  603
  216 -119 -488  519
  240 -147 -392  443
  170  -77 -185  230
   61   30   25   17
   24   67  117  -71
   -2   95  -78  100
  -65  159 -296  332
 -116  210 -415  443
  -63  159 -456  495
  -44  140 -472  510
    1   93 -356  405
  104  -12 -291  319
   53   39 -239  265
   36   57 -246  267
 -120  213 -147  151
 -169  263  -83  114
 -104  197 -110  101
   11   84 -164  186
  128  -35 -174  210
  226 -132 -177  214
  381 -153 -232  267
999999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860819 2 010000    0    -905.9    1041.9   .000050   .000050       24.
    2   87 -937  926
    5   93 -886  889
   39   60 -881  881
   57   43 -852  848
  -10  108 -764  772
 -122  218 -660  665
 -124  222 -654  666
 -143  241 -642  645
 -186  286 -597  604
 -220  228 -559  590
 -140  237 -552  561
 -115  212 -533  540
  -73  171 -512  516
  -43  139 -485  493
   18  160 -463  450
   -9  101 -539  537
   19   70 -612  619
   29   66 -626  629
   55   37 -664  670
  141  -49 -694  700
  218 -123 -727  738
  206 -109 -721  748
  281 -180 -714  729
  290 -190 -665  678
  296 -199 -606  622
  241 -143 -588  605
  171  -80 -575  594
  118  -25 -632  639
   69   25 -668  678
   -3   95 -676  687
  -37  132 -671  676
  -72  169 -622  625
  -83  177 -627  637
 -102  201 -582  588
 -125  216 -539  545
 -105  198 -517  513
  -43  136 -462  464
   22   73 -417  427
   33   58 -448  461
   65   27 -488  500
  179    6 -490  507
  139  -44 -483  493
  153  -57 -500  517
  138  -44 -518  536
  124  -31 -523  535
  177  -88 -575  575
  213 -113 -492  506
  238 -146 -408  430
  166  -75 -194  196
   60   31   21   -4
   26   65  104  -96
   -5   97  -81   83
  -70  162 -307  321
 -122  214 -419  426
  -67  160 -470  484
  -48  144 -489  493
    1   90 -376  388
  102  -11 -299  313
   52   40 -246  260
   35   60 -257  268
 -124  215 -153  164
 -171  263 -102   96
 -106  195 -122  129
   10   81 -166  173
  131  -40 -184  195
  225 -132 -189  202
  361 -169 -259  264
999999999999999999999999.
```

```
86-0922 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-3
860922 2 010000    0    -905.9    1041.9   .000050   .000050       24.
   -5   86 -914  941
    2   90 -868  888
   35   54 -869  890
   55   38 -838  857
  -12  100 -764  787
 -121  214 -652  684
 -125  219 -650  683
 -144  236 -624  660
 -188  281 -588  618
 -216  256 -551  605
 -141  231 -544  565
 -118  205 -526  556
  -78  165 -501  538
  -44  132 -472  505
   17  151 -458  460
  -10   94 -530  556
   18   64 -607  632
   28   58 -614  642
   52   30 -655  682
  140  -57 -675  709
  218 -130 -719  756
  205 -120 -718  756
  276 -190 -701  736
  286 -196 -663  685
  292 -204 -609  634
  242 -148 -585  606
  170  -84 -570  606
  121  -31 -610  645
   72   18 -664  696
   -3   90 -668  701
  -40  123 -665  684
  -73  160 -605  630
  -84  170 -619  649
 -102  195 -578  600
 -125  207 -529  552
 -107  191 -506  523
  -44  130 -455  479
   21   67 -405  430
   36   51 -455  473
   65   21 -494  515
  179   -4 -489  517
  138  -50 -473  501
  151  -62 -511  531
  136  -47 -518  553
  125  -36 -516  555
  176  -91 -576  592
  215 -122 -490  523
  238 -147 -394  436
  167  -75 -183  213
   59   31   31    5
   27   64  116  -74
   -3   92  -82  100
  -71  158 -297  328
 -122  208 -405  443
  -66  155 -457  481
  -49  138 -469  511
    1   88 -363  404
  100  -15 -288  313
   50   37 -241  272
   32   55 -247  270
 -125  210 -143  168
 -158  261  -86  114
 -106  194 -120  151
   12   79 -159  198
  132  -45 -182  212
  228 -135 -184  209
  369 -184 -259  279
999999999999999999999999.
```

```
86-1108 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
861108 2 010000    0    -905.9    1041.9   .000050   .000050       24.
   -7  +90 -929 +933
   -4  +92 -870 +881
  +31  +56 -868 +885
  +49  +38 -844 +851
  -18 +105 -762 +778
 -128 +216 -664 +676
 -132 +220 -655 +680
 -152 +236 -630 +642
 -195 +282 -597 +601
 -224 +221 -559 +576
 -147 +232 -546 +564
 -123 +205 -530 +550
  -82 +165 -507 +524
  -49 +132 -489 +505
  +10 +159 -454 +470
  -14  +94 -524 +547
  +18  +66 -618 +624
  +23  +59 -619 +636
  +48  +31 -659 +671
 +137  -57 -689 +701
 +214 -130 -722 +742
 +199 -166 -725 +738
 +275 -191 -715 +725
 +284 -196 -667 +678
 +292 -205 -609 +626
 +235 -145 -591 +599
 +164  -84 -575 +593
 +116  -30 -632 +636
  +66  +21 -665 +680
   -6  +89 -666 +687
  -42 +127 -672 +686
  -75 +161 -614 +627
  -86 +169 -621 +640
 -104 +195 -577 +581
 -128 +210 -527 +552
 -106 +192 -522 +520
  -44 +128 -466 +469
  +17  +66 -405 +421
  +33  +51 -457 +471
  +63  +19 -501 +507
 +136  -41 -484 +522
 +134  -50 -471 +494
 +147  -64 -503 +524
 +134  -50 -519 +540
 +121  -38 -521 +544
 +174  -95 -571 +577
 +212 -123 -493 +524
 +237 -153 -404 +429
 +165  -79 -188 +213
  +58  +27  +26   +1
  +26  +59 +108  -83
   -7  +90  -67  +99
  -75 +159 -307 +328
 -126 +208 -416 +439
  -70 +153 -466 +485
  -51 +138 -484 +502
   -2  +85 -371 +396
 +100  -17 -302 +306
  +49  +34 -269 +253
  +30  +55 -261 +257
 -128 +210 -161 +155
 -176 +259 -109 +103
 -111 +191 -130 +140
   +6  +75 -168 +186
 +127  -47 -184 +202
 +222 -140 -196 +214
 +373 -181 -263 +278
99999999999999999999999.
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```
87-0508 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
870508 2 010000    0    -905.9    1041.9   .000050   .000050       24.
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   -2  +90 -893 +881
  +27  +54 -886 +884
  +50  +35 -860 +862
  -11  +91 -774 +792
 -127 +212 -656 +678
 -131 +220 -660 +674
 -150 +236 -638 +657
 -190 +277 -600 +618
 -180 +264 -561 +600
 -144 +236 -556 +573
 -120 +205 -534 +550
  -79 +168 -511 +539
  -46 +135 -483 +511
  -23 +144 -459 +467
  -11  +94 -524 +544
  +18  +66 -611 +629
  +28  +60 -609 +635
  +48  +37 -648 +669
 +140  -52 -680 +704
 +218 -130 -732 +745
 +203 -112 -726 +752
 +278 -189 -714 +735
 +285 -193 -668 +684
 +294 -203 -610 +624
 +243 -151 -595 +610
 +168  -84 -573 +594
 +118  -30 -622 +637
  +70  +18 -670 +686
   -5  +91 -670 +691
  -39 +131 -671 +680
  -75 +159 -624 +634
  -86 +170 -622 +630
 -106 +194 -575 +598
 -127 +211 -529 +552
 -109 +196 -515 +525
  -44 +133 -459 +474
  +20  +66 -406 +414
  +33  +52 -449 +465
  +64  +22 -489 +505
 +140   -2 -483 +508
 +138  -51 -482 +494
 +153  -66 -507 +524
 +152  -64 -533 +546
 +142  -54 -531 +546
 +228 -144 -577 +600
 +257 -163 -501 +525
 +253 -163 -413 +439
 +172  -83 -186 +188
  +66  +21  +25   -9
  +39  +49 +105  -93
  -14 +104  -70  +97
  -82 +168 -312 +336
 -126 +211 -412 +440
  -68 +155 -478 +485
  -49 +138 -480 +486
    0  +88 -368 +395
 +101  -11 -293 +313
  +51  +39 -263 +271
  +28  +61 -253 +271
 -128 +214 -146 +162
 -177 +268  -95 +114
 -110 +198 -124 +144
  +16  +76 -166 +185
 +140  -49 -181 +204
 +231 -140 -191 +210
 +387 -192 -268 +288
99999999999999999999999.
```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
870622 2 010000    0    -905.9    1041.9   .000050   .000050       24.
   -2  +71 -910 +972
   -2  +79 -855 +916
  +20  +47 -841 +908
  +49  +28 -829 +881
   -6  +78 -752 +819
 -130 +203 -630 +697
 -141 +209 -631 +701
 -157 +225 -605 +681
 -196 +267 -576 +646
 -192 +257 -535 +615
 -155 +226 -526 +589
 -132 +201 -505 +572
  -90 +162 -486 +557
  -59 +128 -454 +524
  -34 +102 -430 +500
  -20  +88 -493 +563
   +7  +56 -575 +643
  +18  +51 -578 +659
  +33  +32 -619 +692
 +125  -59 -649 +726
 +205 -138 -689 +766
 +195 -124 -698 +765
 +267 -192 -686 +762
 +279 -203 -640 +698
 +287 -214 -594 +641
 +237 -162 -568 +627
 +162  -93 -551 +610
 +111  -39 -590 +662
  +63   +7 -642 +706
  -11  +82 -642 +710
  -46 +118 -644 +713
  -81 +156 -588 +658
  -94 +162 -595 +665
 -111 +186 -555 +624
 -134 +205 -507 +575
 -116 +190 -490 +548
  -54 +128 -435 +496
   +8  +63 -376 +450
  +23  +48 -420 +489
  +52  +18 -461 +528
 +171   -6 -467 +533
 +130  -56 -448 +516
 +145  -74 -473 +537
 +142  -73 -497 +565
 +135  -62 -502 +568
 +218 -149 -546 +621
 +249 -170 -475 +540
 +245 -167 -385 +453
 +166  -89 -161 +240
  +59  +12  +49  +23
  +30  +42 +129  -64
  -23  +97  -38 +116
  -91 +163 -286 +355
 -134 +205 -403 +454
  -81 +152 -434 +509
  -61 +133 -449 +521
  -10  +84 -348 +421
  +95  -18 -266 +343
  +42  +31 -224 +288
  +18  +53 -229 +296
 -138 +209 -118 +192
 -187 +260  -70 +139
 -117 +190  -96 +170
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 +131  -59 -159 +230
 +223 -150 -165 +235
 +378 -201 -249 +315
99999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
871006 2 010000    0    -905.9    1041.9   .000050   .000050       24.
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  -36  +40 -882 +877
   +0   +2 -882 +864
  +11  -14 -845 +843
  -60  +55 -768 +764
 -168 +165 -661 +661
 -171 +171 -669 +655
 -192 +190 -648 +639
 -230 +232 -610 +604
 -255 +172 -567 +570
 -181 +184 -560 +555
 -159 +156 -554 +536
 -118 +117 -520 +517
  -84  +84 -499 +485
  -24 +111 -466 +459
  -49  +46 -540 +529
  -19  +14 -623 +604
  -14  +12 -632 +617
  +10  -15 -662 +650
 +102 -106 -692 +682
 +182 -184 -733 +723
 +165 -164 -738 +728
 +244 -242 -724 +714
 +244 -242 -672 +664
 +254 -251 -620 +614
 +194 -193 -592 +592
 +122 -129 -578 +573
  +73  -76 -627 +621
  +25  -28 -674 +663
  -45  +40 -683 +668
  -87  +82 -672 +670
 -117 +117 -613 +612
 -127 +124 -621 +629
 -146 +151 -586 +582
 -166 +166 -540 +537
 -148 +149 -519 +518
  -82  +82 -470 +466
  -19  +20 -432 +419
  -10   +5 -455 +450
  +21  -26 -494 +488
  +90  -49 -493 +494
  +94  -96 -482 +480
 +109 -115 -507 +500
 +109 -113 -529 +518
  +99 -103 -531 +526
 +186 -192 -580 +573
 +212 -209 -495 +505
 +207 -207 -422 +415
 +123 -123 -202 +184
  +18  -19   -3  -18
   -3   +2  +82  -95
  -60  +62 -109  +79
 -129 +125 -325 +316
 -171 +167 -426 +411
 -113 +107 -468 +463
  -93  +92 -483 +473
  -38  +40 -390 +376
  +60  -61 -307 +301
   +7   -7 -267 +250
  -13  +15 -270 +252
 -175 +173 -170 +152
 -220 +222 -108  +93
 -150 +149 -131 +130
  -19  +18 -174 +163
 +102 -103 -194 +181
 +190 -189 -198 +188
 +334 -239 -290 +272
99999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-3
871118 2 010000    0    -905.9    1041.9   .000050   .000050       24.
  -46   39 -937  918
  -34   42 -899  868
    3    3 -887  853
   12  -12 -837  828
  -58   57 -766  758
 -166  166 -666  654
 -167  174 -674  650
 -190  190 -653  632
 -227  234 -615  595
 -250  170 -574  573
 -178  186 -566  547
 -150  156 -538  525
 -109  120 -530  511
  -87   88 -497  486
  -23  125 -465  453
  -46   44 -547  529
  -14   17 -626  606
  -17   18 -628  623
   14  -13 -671  659
  106 -103 -695  683
  184 -182 -742  720
  166 -162 -738  719
  245 -241 -725  705
  247 -240 -672  653
  257 -251 -622  604
  198 -194 -598  584
  127 -127 -585  566
   76  -72 -630  623
   28  -24 -676  659
  -43   42 -686  661
  -84   85 -675  665
 -114  120 -619  611
 -124  127 -628  617
 -144  154 -596  574
 -163  167 -549  532
 -144  150 -527  514
  -79   85 -477  460
  -11   22 -450  420
    3    8 -481  444
   63  -24 -504  481
   95  -92 -480  494
   97  -96 -494  474
  112 -114 -513  490
  113 -113 -534  510
  103 -102 -538  517
  192 -193 -588  563
  218 -211 -522  498
  213 -209 -424  406
  128 -125 -213  173
   23  -18   -1  -29
    0    3   78 -100
  -59   62 -116   89
 -128  130 -330  312
 -168  168 -434  410
 -110  109 -472  461
  -90   93 -484  462
  -35   42 -391  367
   61  -59 -305  296
   10   -5 -276  251
  -11   18 -270  247
 -175  176 -171  148
 -219  222 -114   99
 -146  152 -139  126
  -13   14 -182  170
  105 -103 -202  181
  195 -190 -208  189
  297 -296 -284  284
99999999999999999999999.
```

```
86-0123 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4  INITIAL READINGS
860123 1 110000    0    -909.2    1003.2   .000050   .000050       24.
  452 -346 -389  401
  455 -345 -392  417
  610 -502 -423  447
  707 -597 -409  437
  704 -595 -338  369
  663 -554 -245  272
  709 -601 -193  220
  692 -581 -179  210
  669 -561 -112  125
  601 -491  -44   68
  523 -414  -13   44
  461 -352  -25   41
  405 -297  -44   71
  298 -189 -110  123
  207 -122 -188  206
  132  -23 -257  271
  115   -6 -325  343
  202  -93 -316  347
  341 -226 -324  355
  362 -251 -403  420
  317 -203 -340  362
  330 -222 -301  326
  337 -222 -268  286
  315 -204 -215  233
  355 -244 -179  203
  394 -279 -110  140
  343 -227 -142  158
  356 -241 -166  187
  382 -266 -140  157
  379 -261 -150  183
  358 -243 -179  185
  375 -263  -66   79
  413 -298  -63   85
  346 -229  -59   75
  387 -271  -10   45
  561 -449  138 -114
  557 -444  164 -121
  391 -275   48  -19
  218 -106  -49   80
  122   -9 -133  161
  118   -7 -162  198
  138  -27 -157  192
  154  -41 -117  150
  151  -38 -191  219
  166  -53 -323  369
  190  -72 -419  460
999999999999999999999999.
```

```
86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860401 1 110000    0    -909.2    1003.2   .000050   .000050       24.
  455 -371 -375  391
  449 -359 -391  406
  601 -511 -436  443
  699 -608 -413  431
  707 -617 -354  361
  658 -571 -253  258
  708 -619 -212  213
  694 -602 -185  193
  672 -582 -112  120
  601 -509  -51   57
  523 -431  -17   26
  459 -368  -20   31
  408 -316  -32   58
  297 -205 -103  115
  207 -115 -186  201
  130  -40 -243  267
  110  -16 -326  335
  192 -103 -321  344
  335 -241 -331  357
  364 -272 -394  425
  311 -213 -343  374
  330 -237 -294  304
  332 -239 -260  289
  311 -220 -214  227
  348 -257 -176  209
  388 -293 -112  139
  336 -245 -127  157
  350 -259 -162  194
  374 -284 -141  169
  373 -280 -141  180
  350 -257 -174  211
  365 -278  -66   86
  404 -313  -70   85
  338 -247  -70   74
  379 -287   -9   42
  553 -462  140 -112
  555 -465  165 -134
  394 -302   45  -26
  210 -117  -57   79
  113  -20 -125  153
  111  -20 -164  190
  134  -43 -159  183
  148  -58 -116  142
  151  -60 -205  229
  162  -75 -335  362
  192 -115 -424  444
999999999999999999999999.
```

```
86-0513 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860513 2 010000     0    -909.2    1003.2   .000050   .000050       24.
  451 -370 -389  394
  443 -359 -401  404
  595 -511 -432  449
  694 -610 -413  423
  703 -622 -353  366
  654 -573 -253  273
  704 -623 -209  228
  689 -608 -187  210
  664 -587 -108  131
  594 -517  -48   61
  513 -438  -16   33
  450 -374  -28   46
  400 -324  -31   65
  287 -212  -99  123
  199 -123 -192  207
  123  -48 -258  267
   99  -21 -341  340
  182 -104 -325  338
  328 -245 -340  354
  356 -281 -397  422
  301 -218 -348  365
  322 -239 -298  308
  322 -243 -272  277
  303 -224 -230  240
  339 -257 -190  212
  377 -297 -125  138
  327 -248 -142  155
  340 -262 -164  185
  366 -287 -142  163
  363 -283 -149  176
  341 -262 -183  196
  356 -279  -78   86
  395 -315  -73   78
  328 -248  -73   78
  369 -286  -10   36
  544 -463  138 -108
  544 -468  161 -132
  383 -307   44  -25
  198 -123  -63   79
  101  -25 -136  147
  101  -22 -164  189
  125  -45 -158  182
  140  -63 -134  141
  142  -64 -214  229
  160  -83 -337  364
  190 -114 -337  390
999999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860616 2 010000    0    -909.2    1003.2   .000050   .000050       24.
  449 -370 -370  396
  440 -360 -380  403
  591 -512 -421  451
  692 -611 -406  428
  705 -621 -342  366
  653 -575 -256  282
  706 -624 -204  244
  689 -608 -184  207
  666 -586 -108  134
  612 -514  -43   77
  532 -434  -12   47
  451 -373  -15   49
  401 -318  -28   64
  289 -207 -100  121
  199 -117 -179  214
  124  -42 -241  285
  103  -21 -322  351
  185 -104 -310  357
  328 -247 -324  361
  356 -279 -400  427
  299 -216 -330  370
  323 -237 -283  325
  323 -241 -252  296
  304 -222 -209  250
  339 -257 -179  216
  378 -295 -104  148
  329 -248 -126  167
  343 -261 -159  204
  370 -287 -128  172
  365 -283 -142  184
  341 -260 -176  200
  364 -275  -51   89
  400 -311  -70   99
  329 -241  -53   89
  373 -283   -5   47
  551 -465  150 -112
  548 -467  164 -126
  385 -303   50  -18
  199 -138  -49   85
  101  -21 -115  153
  100  -19 -161  191
  127  -44 -158  185
  147  -65 -115  149
  150  -67 -216  241
  168  -84 -340  369
  198 -110 -331  369
999999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860716 2 010000     0    -909.2    1003.2   .000050   .000050       24.
  459 -367 -371  389
  449 -354 -377  391
  600 -507 -409  441
  700 -606 -399  426
  712 -617 -338  386
  662 -571 -242  278
  713 -622 -191  231
  697 -605 -168  211
  673 -584  -99  131
  603 -513  -35   71
  522 -433   -5   40
  458 -369  -12   39
  408 -319  -24   63
  295 -207  -95  122
  204 -117 -177  211
  128  -42 -236  275
  103  -17 -314  337
  185 -100 -313  356
  331 -242 -319  368
  361 -278 -393  430
  300 -212 -333  378
  329 -238 -286  332
  326 -239 -253  301
  306 -221 -207  240
  341 -254 -183  221
  383 -294 -104  142
  334 -247 -134  165
  346 -259 -154  200
  373 -286 -132  172
  368 -282 -147  185
  342 -256 -171  204
  364 -276  -51   97
  404 -314  -53   93
  331 -242  -51   89
  373 -284   -9   48
  553 -464  141 -120
  552 -465  167 -133
  389 -303   54  -19
  201 -116  -52   80
  106  -19 -119  156
  104  -18 -163  190
  130  -44 -154  185
  150  -63 -114  148
  153  -66 -199  241
  173  -87 -332  361
  201 -114 -367  400
999999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860819 2 010000    0    -909.2    1003.2   .000050   .000050       24.
  452 -364 -380  396
  444 -354 -394  404
  600 -510 -426  445
  695 -604 -411  428
  705 -617 -351  374
  658 -568 -254  268
  711 -621 -207  226
  694 -602 -184  203
  669 -578 -108  133
  599 -509  -48   65
  519 -430   -9   41
  456 -366   -7   48
  407 -316  -23   61
  293 -202  -91  120
  203 -114 -183  215
  128  -39 -247  276
  110  -16 -323  336
  190 -100 -312  348
  335 -244 -321  360
  362 -277 -394  428
  299 -208 -332  360
  331 -237 -292  326
  328 -237 -265  301
  309 -218 -215  256
  344 -253 -180  221
  383 -293 -108  134
  334 -245 -127  166
  347 -255 -156  200
  376 -285 -131  163
  369 -278 -150  188
  345 -255 -175  205
  369 -281  -50   82
  406 -317  -59   94
  332 -244  -55   90
  376 -285  -11   23
  558 -468  142 -121
  554 -467  158 -133
  391 -304   52  -21
  202 -115  -66   83
  106  -20 -129  152
  105  -19 -165  189
  133  -46 -156  176
  152  -65 -111  146
  154  -67 -222  243
  175  -90 -345  352
  192 -108 -356  372
999999999999999999999999.
```

```
86-0922 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-4
860922 2 010000     0    -909.2    1003.2   .000050   .000050       24.
  454 -363 -380  403
  444 -351 -390  405
  598 -508 -423  446
  694 -603 -400  439
  708 -617 -348  375
  658 -567 -256  276
  713 -620 -203  237
  694 -602 -187  216
  670 -580 -110  136
  601 -510  -47   66
  520 -430   -8   36
  457 -366  -17   45
  410 -318  -22   60
  294 -204  -93  119
  205 -116 -177  207
  128  -40 -241  269
  106  -14 -327  353
  189  -98 -310  350
  333 -241 -327  362
  364 -277 -401  425
  299 -209 -332  361
  331 -239 -290  334
  327 -240 -253  296
  308 -220 -211  259
  343 -251 -176  225
  385 -293 -102  140
  335 -245 -125  156
  345 -255 -164  196
  377 -286 -133  164
  369 -279 -152  186
  345 -254 -176  203
  365 -277  -58   91
  405 -316  -54   93
  332 -242  -50   93
  373 -280  -12   50
  555 -464  143 -111
  554 -464  155 -129
  392 -303   33  -14
  201 -116  -58   88
  105  -17 -122  158
  104  -16 -160  188
  131  -43 -168  179
  151  -61 -131  145
  156  -69 -227  247
  174  -89 -338  351
  185  -95 -347  370
999999999999999999999999.
```

```
86-1108 BALL MOUNTAIN DAM, JAMAICA VT SI-85-4
861108 2 010000     0    -909.2    1003.2   .000050   .000050       24.
 +451 -365 -367 +393
 +439 -353 -383 +409
 +593 -509 -418 +446
 +690 -603 -407 +438
 +705 -618 -350 +373
 +655 -569 -255 +272
 +709 -622 -203 +224
 +691 -604 -186 +201
 +667 -582 -109 +136
 +599 -512  -46  +66
 +518 -432   -8  +38
 +452 -369  -12  +46
 +408 -320  -25  +52
 +293 -208  -95 +121
 +203 -118 -182 +208
 +127  -44 -240 +269
 +103  -18 -316 +353
 +186 -102 -324 +349
 +330 -245 -319 +359
 +360 -280 -393 +428
 +296 -208 -331 +369
 +329 -241 -290 +334
 +326 -242 -255 +295
 +306 -221 -217 +257
 +340 -254 -180 +217
 +382 -295 -113 +134
 +333 -248 -122 +153
 +343 -258 -162 +187
 +373 -289 -130 +165
 +367 -284 -149 +176
 +343 -257 -183 +204
 +365 -280  -52  +79
 +403 -317  -58  +86
 +331 -246  -60  +85
 +371 -285  -11  +34
  552 -467  139 -131
  548 -466  149 -141
  390 -306   47  -17
  201 -118  -58   88
  105  -22 -128  152
  102  -20 -159  185
  130  -46 -157  179
  149  -61 -140  148
  159  -74 -229  251
  180  -97 -342  358
  176  -97 -342  356
999999999999999999999999.
```

```
87-0508 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-4
870508 2 010000    0    -909.2    1003.2   .000050   .000050       24.
 +455 -356 -381 +401
 +442 -344 -387 +403
 +599 -500 -424 +445
 +690 -591 -415 +430
 +716 -614 -355 +391
 +656 -564 -254 +275
 +718 -622 -203 +238
 +696 -600 -189 +206
 +672 -576 -110 +146
 +604 -509  -45  +69
 +524 -428  -10  +44
 +455 -360  -13  +54
 +415 -319  -24  +58
 +300 -204  -87 +121
 +210 -118 -186 +216
 +134  -40 -238 +276
 +107  -12 -325 +337
 +186  -93 -321 +358
 +339 -243 -339 +358
 +370 -278 -411 +432
 +299 -204 -331 +371
 +330 -234 -302 +333
 +331 -237 -273 +302
 +310 -215 -226 +259
 +341 -247 -180 +223
 +385 -289 -110 +132
 +334 -243 -127 +156
 +344 -254 -168 +186
 +373 -283 -138 +168
 +371 -279 -155 +186
 +346 -251 -182 +207
 +366 -273  -48  +95
 +406 -313  -53  +79
 +334 -241  -63  +88
 +371 -278  -10  +49
 +554 -461 +136 -109
 +554 -462 +152 -128
 +394 -302  +30  -17
 +203 -113  -57  +85
 +106  -16 -124 +157
 +101  -11 -162 +186
 +130  -38 -159 +183
  150  -57 -132  155
  168  -76 -223  255
  185  -94 -337  365
  192 -101 -357  391
999999999999999999999999.
```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-4
870622 2 010000    0    -909.2    1003.2   .000050   .000050       24.
 +456 -376 -340 +429
 +432 -365 -348 +425
 +590 -521 -385 +463
 +680 -611 -372 +456
 +705 -633 -323 +395
 +647 -581 -227 +302
 +710 -638 -175 +250
 +684 -616 -161 +229
 +662 -595  -81 +161
 +594 -528  -22  +83
 +511 -446  +12  +56
 +448 -377  +10  +64
 +404 -336   -7  +82
 +288 -221  -77 +133
 +198 -132 -160 +234
 +122  -56 -218 +296
  +99  -27 -312 +361
 +176 -111 -302 +363
 +328 -260 -313 +375
 +358 -295 -378 +439
 +288 -218 -304 +375
 +318 -250 -278 +333
 +320 -253 -233 +309
 +300 -234 -199 +266
 +332 -263 -167 +242
 +374 -300  -89 +157
 +323 -257 -101 +166
 +335 -267 -138 +215
 +364 -299 -106 +183
 +360 -297 -123 +207
 +333 -266 -157 +216
 +356 -286  -35 +102
 +384 -316  -43 +113
 +327 -260  -41 +113
 +376 -309  +29  +43
 +540 -472 +171  -96
 +538 -470 +182 -104
 +384 -319  +63   -3
 +194 -125  -40 +111
  +88  -23 -107 +181
  +81  -16 -137 +202
  114  -49 -131  202
  146  -82 -121  192
  179 -114 -214  299
  186 -121 -321  406
  160  -96 -368  425
999999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-4
871006 2 010000    0    -909.2    1003.2   .000050   .000050       24.
 +412 -408 -395 +377
 +400 -397 -391 +380
 +558 -555 -428 +414
 +646 -642 -418 +412
 +672 -668 -365 +355
 +614 -613 -258 +252
 +675 -670 -212 +207
 +653 -649 -193 +189
 +627 -625 -115 +112
 +560 -558  -56  +50
 +478 -476  -22  +22
 +409 -408  -30  +32
 +372 -369  -37  +43
 +255 -253 -102  +89
 +169 -165 -202 +201
  +93  -89 -263 +244
  +64  -59 -349 +326
 +145 -143 -343 +319
 +297 -294 -349 +321
 +330 -330 -418 +394
 +256 -251 -345 +334
 +293 -287 -309 +308
 +290 -288 -279 +268
 +269 -265 -238 +234
 +298 -293 -207 +199
 +341 -336 -141 +123
 +296 -292 -133 +128
 +304 -301 -178 +163
 +336 -333 -155 +146
 +333 -328 -175 +162
 +305 -299 -193 +186
 +323 -322  -86  +73
 +354 -350  -87  +72
 +299 -295  -79  +62
 +348 -342   -2  -11
 +507 -503 +134 -140
 +506 -503 +134 -145
 +357 -354  +26  -26
 +165 -162  -74  +66
  +58  -56 -139 +137
  +48  -44 -166 +166
  +84  -80 -165 +166
 +124 -122 -164 +168
 +162 -160 -271 +245
 +178 -178 -337 +327
 +207 -223 -279 +295
999999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-4
871118 2 010000     0    -909.2    1003.2   .000050   .000050       24.
  405 -405 -400  369
  401 -398 -397  378
  566 -565 -427  407
  646 -642 -420  403
  664 -660 -363  342
  614 -614 -257  249
  672 -668 -219  204
  650 -646 -200  184
  623 -622 -124  104
  555 -553  -61   45
  474 -472  -31   15
  407 -408  -35   26
  367 -365  -43   37
  251 -248 -109   86
  165 -161 -203  199
   89  -87 -264  239
   65  -61 -339  307
  148 -148 -341  312
  299 -298 -352  318
  327 -328 -414  382
  252 -249 -349  328
  290 -284 -321  300
  291 -287 -286  258
  268 -265 -247  227
  298 -295 -214  190
  337 -335 -144  120
  294 -291 -134  112
  302 -299 -176  157
  334 -332 -158  143
  330 -328 -175  152
  304 -299 -197  181
  322 -323  -87   70
  351 -348  -91   66
  297 -295  -80   54
  349 -343  -18   -4
  506 -502  109 -147
  504 -501  128 -155
  353 -351   21  -26
  165 -161  -79   52
   69  -58 -147  129
   47  -44 -168  161
   81  -78 -173  158
  124 -122 -177  145
  161 -160 -271  243
  178 -177 -343  319
  160 -164 -347  311
 999999999999999999999999.
```

```
86-0123 BALL MOUNTAIN DAM, JAMAICA, VT  SI-5-85  INITIAL READINGS
860123 1 110000    0    -908.9    1044.9   .000050   .000050       24.
  100   13  142 -135  0.0
  123  -12  195 -186  0.0
  184  -68  339 -326  0.0
  295 -186  459 -443  0.0
  411 -291  498 -475  0.0
  528 -421  574 -550  0.0
  616 -500  524 -523  0.0
  687 -569  419 -410  0.0
  777 -660  314 -312  0.0
  816 -706  285 -260  0.0
  649 -532  111  -96  0.0
  480 -367   39  -19  0.0
  339 -225   39  -23  0.0
  204  -91  103  -89  0.0
   87   24  227 -202  0.0
   79   34  364 -343  0.0
  222 -104  487 -472  0.0
  385 -272  610 -603  0.0
  487 -369  686 -686  0.0
  571 -452  714 -690  0.0
  719 -602  719 -684  0.0
  818 -701  602 -589  0.0
  839 -720  543 -542  0.0
  816 -700  449 -445  0.0
  778 -685  410 -397  0.0
  742 -628  357 -334  0.0
  722 -603  300 -276  0.0
  663 -547  230 -199  0.0
  601 -485  167 -143  0.0
  521 -403  110  -85  0.0
  455 -341   80  -46  0.0
  432 -314   90  -59  0.0
  366 -250   72  -44  0.0
  326 -209   97  -92  0.0
  305 -189  118  -88  0.0
  331 -216  151 -131  0.0
  377 -264  245 -220  0.0
  412 -301  319 -308  0.0
  435 -322  344 -324  0.0
  460 -349  340 -321  0.0
  505 -383  303 -302  0.0
  424 -311  261 -236  0.0
  365 -246  264 -242  0.0
  330 -219  277 -270  0.0
  307 -193  279 -258  0.0
  296 -178  249 -220  0.0
  340 -228  202 -187  0.0
  395 -282  123 -110  0.0
  430 -313   60  -62  0.0
  381 -264   53  -35  0.0
  316 -202   -4    2  0.0
  319 -207 -106  135  0.0
  305 -188 -264  273  0.0
  250 -133 -195  202  0.0
  178  -67 -119  136  0.0
  122   -5  -25   44  0.0
   56   56   70  -51  0.0
   19   97  127 -102  0.0
  -14  130   93  -80  0.0
  -71  185  100  -77  0.0
  -90  208   85  -62  0.0
  -92  207   77  -61  0.0
  -68  181  159 -147  0.0
   21   90  305 -301  0.0
  220 -106  482 -462  0.0
  413 -297  606 -580  0.0
  463 -357  626 -605  0.0
999999999999999999999999.
```

```
86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860401 1 110000    0    -908.9    1044.9   .000050   .000050       24.
   95    0  141 -138
  109  -13  174 -180
  167  -71  328 -339
  280 -188  455 -456
  400 -300  484 -476
  536 -440  563 -563
  607 -506  527 -511
  676 -577  423 -417
  767 -669  313 -311
  807 -713  285 -272
  645 -548  111 -104
  480 -384   23  -19
  333 -239   28  -21
  200 -105   86  -81
   74   16  214 -200
   67   27  352 -339
  206 -106  481 -475
  376 -283  612 -599
  472 -378  686 -676
  559 -460  712 -697
  709 -611  709 -694
  815 -716  611 -605
  832 -733  558 -544
  809 -709  464 -452
  772 -672  411 -404
  735 -643  353 -336
  720 -617  282 -271
  656 -556  228 -207
  596 -497  164 -150
  517 -416  102  -85
  447 -350   67  -60
  428 -326   78  -56
  368 -268   71  -41
  320 -219  109  -84
  294 -194  124 -103
  325 -227  151 -132
  373 -274  244 -220
  404 -304  323 -311
  433 -331  343 -322
  458 -358  332 -316
  490 -386  317 -295
  420 -321  263 -240
  363 -260  257 -243
  338 -236  283 -269
  317 -217  275 -259
  296 -193  241 -222
  342 -242  199 -174
  393 -294  116 -108
  431 -329   83  -60
  382 -280   52  -38
  318 -215   17   -1
  312 -212 -103  132
  297 -189 -246  268
  244 -137 -190  211
  172  -71 -112  126
  118   -9  -25   47
   51   52   74  -50
   12   92  132 -103
  -18  124   95  -73
  -76  179   90  -76
  -99  204   99  -71
 -102  206   80  -56
  -75  176  163 -134
   23   76  309 -285
  209 -107  470 -455
  385 -289  581 -568
  508 -409  645 -633
999999999999999999999999.
```

```
86-0513 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860513 2 010000    0    -908.9    1044.9   .000050   .000050       24.
   69   -4  151 -135
   85  -16  178 -157
  143  -72  330 -310
  258 -190  463 -438
  378 -300  485 -451
  522 -448  579 -559
  590 -514  531 -509
  656 -580  433 -414
  752 -675  314 -306
  795 -720  294 -265
  638 -560  112 -100
  473 -396   30  -19
  325 -250   36  -12
  192 -118   90  -73
   65    8  216 -200
   50   21  352 -330
  185 -108  478 -464
  361 -290  612 -600
  457 -384  686 -677
  542 -466  702 -688
  688 -613  722 -688
  803 -724  625 -600
  823 -742  546 -541
  797 -717  464 -440
  758 -682  414 -402
  723 -650  353 -327
  706 -626  299 -271
  644 -565  217 -218
  582 -504  160 -149
  504 -427  100  -81
  432 -360   85  -55
  414 -335   89  -53
  354 -277   57  -53
  308 -228  105  -73
  280 -202  124 -103
  312 -235  148 -123
  358 -282  241 -213
  390 -313  328 -307
  418 -340  344 -323
  443 -367  335 -303
  475 -394  319 -292
  407 -329  266 -241
  350 -270  263 -230
  326 -247  292 -261
  305 -225  281 -249
  281 -203  239 -214
  329 -252  196 -173
  379 -304  125 -103
  418 -337   84  -61
  369 -290   54  -31
  305 -226   12   -2
  300 -221 -102  133
  286 -202 -254  278
  233 -148 -197  220
  161  -83 -118  124
  107  -20  -36   57
   39   41   69  -54
   -2   81  131 -109
  -32  111   91  -72
  -90  167   96  -62
 -113  194   88  -67
 -116  194   81  -58
  -86  166  162 -140
   12   69  311 -292
  204 -126  470 -440
  378 -300  587 -556
  450 -361  647 -641
99999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860616 2 010000     0    -908.9    1044.9   .000050   .000050       24.
   81     1  150 -131
   94   -12  183 -162
  153   -70  334 -302
  268  -191  470 -438
  388  -291  490 -452
  528  -444  579 -549
  595  -508  526 -507
  662  -578  432 -408
  760  -672  318 -297
  796  -713  295 -253
  638  -553  119  -92
  471  -396   30    3
  324  -241   39   -9
  192  -108   93  -71
   66    16  215 -190
   57    25  354 -332
  198  -112  483 -460
  371  -289  616 -586
  467  -382  690 -655
  550  -462  713 -679
  698  -615  716 -689
  808  -720  628 -594
  825  -735  561 -535
  797  -711  459 -431
  762  -676  422 -386
  725  -646  348 -324
  710  -620  282 -269
  647  -559  236 -208
  585  -499  169 -144
  506  -420  103  -75
  437  -354   87  -60
  417  -329   84  -57
  358  -272   81  -50
  311  -224  107  -68
  284  -198  133  -89
  318  -233  156 -115
  364  -280  251 -211
  397  -310  338 -313
  424  -338  353 -308
  449  -365  344 -310
  483  -392  323 -280
  411  -325  268 -233
  355  -266  265 -240
  332  -244  295 -256
  308  -223  278 -249
  287  -200  245 -205
  334  -249  201 -175
  383  -299  123  -94
  421  -334   89  -54
  372  -286   62  -26
  310  -223   29   12
  303  -221 -100  141
  285  -198 -247  284
  234  -148 -180  220
  165   -83 -103  126
  107   -18  -26   55
   38    46   81  -55
    3    84  139 -104
  -25   113  100  -67
  -85   170  104  -61
 -108   195  100  -64
 -111   196   88  -56
  -81   167  173 -147
   15    68  316 -308
  205  -122  475 -450
  377  -295  583 -552
  438  -344  665 -649
999999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860716 2 010000     0    -908.9    1044.9   .000050   .000050       24.
   97    14  144 -135
  109     3  180 -155
  165   -53  328 -313
  282  -172  468 -442
  397  -280  493 -465
  543  -429  582 -555
  611  -493  516 -516
  676  -561  428 -413
  774  -656  328 -309
  812  -699  272 -272
  655  -541  121 -106
  491  -376   30  -15
  342  -230   37   -9
  210   -98   86  -71
   82    28  213 -193
   71    39  355 -330
  210   -92  483 -463
  385  -271  620 -596
  480  -365  693 -676
  567  -444  708 -701
  714  -595  721 -691
  829  -704  625 -599
  845  -721  552 -542
  818  -695  469 -444
  780  -660  425 -390
  745  -631  358 -338
  727  -605  286 -275
  664  -545  231 -210
  603  -485  183 -153
  523  -407  103  -78
  452  -341   89  -58
  431  -314   92  -61
  371  -258   68  -49
  326  -210  101  -81
  298  -184  121  -93
  331  -217  151 -126
  379  -263  244 -220
  410  -294  328 -311
  439  -320  342 -314
  466  -348  344 -309
  498  -376  320 -287
  426  -311  265 -243
  369  -251  256 -244
  347  -230  290 -269
  324  -208  281 -256
  301  -185  239 -222
  346  -232  200 -175
  395  -283  123 -101
  433  -318   90  -60
  384  -270   58  -32
  320  -207   22   -1
  313  -206 -105  128
  291  -181 -255  274
  242  -133 -190  210
  175   -71 -110  130
  118    -3  -34   49
   43    62   74  -62
   14    97  139 -116
  -14   126   93  -71
  -74   183  104  -73
  -98   209  103  -76
 -101   209   87  -61
  -70   180  168 -148
   28    84  316 -305
  222  -106  473 -451
  389  -272  576 -563
  482  -361  677 -653
99999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860819 2 010000    0    -908.9    1044.9   .000050   .000050       24.
   86    1  140 -152
   98  -11  171 -163
  154  -66  323 -313
  271 -186  463 -448
  385 -294  480 -468
  530 -441  571 -565
  602 -508  533 -524
  666 -572  434 -420
  763 -669  319 -315
  802 -712  293 -273
  648 -555  119 -110
  484 -390   34  -26
  334 -243   39  -18
  202 -112   89  -70
   72   48  213 -200
   58   30  348 -339
  195 -103  473 -474
  372 -284  609 -594
  466 -378  683 -669
  551 -459  703 -689
  696 -608  704 -703
  812 -717  626 -612
  830 -734  559 -544
  804 -707  463 -444
  767 -672  414 -401
  734 -644  353 -341
  716 -618  272 -279
  653 -557  226 -217
  593 -498  173 -160
  514 -419  103  -94
  443 -352   81  -62
  422 -326   71  -71
  362 -269   63  -51
  316 -222   98  -84
  287 -194  122 -103
  321 -229  146 -133
  368 -275  238 -220
  399 -306  325 -313
  428 -333  333 -321
  455 -360  338 -317
  486 -390  317 -301
  416 -322  256 -248
  357 -263  245 -243
  337 -242  285 -270
  313 -220  274 -261
  290 -196  230 -225
  336 -243  184 -182
  387 -293  121 -107
  424 -327   85  -68
  377 -283   55  -37
  314 -220   23  -12
  310 -219 -107  129
  290 -195 -256  274
  242 -145 -191  207
  176  -86 -113  128
  114  -17  -40   49
   42   52   73  -65
    8   87  130 -120
  -19  114   82  -76
  -80  172   89  -75
 -104  199   95  -81
 -106  199   77  -66
  -78  169  160 -151
   19   71  306 -299
  209 -118  464 -449
  376 -283  575 -561
  459 -356  685 -675
999999999999999999999999.
```

```
86-0922 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-5
860922 2 010000    0    -908.9    1044.9   .000050   .000050       24.
   84    2  150 -130
   95   -9  176 -148
  150  -64  328 -299
  268 -184  466 -437
  381 -294  484 -450
  529 -443  576 -548
  599 -509  532 -508
  660 -573  432 -409
  759 -670  326 -303
  798 -716  295 -248
  644 -556  122  -96
  478 -391   37  -13
  330 -244   43  -11
  198 -113   90  -63
   68   17  217 -191
   53   30  353 -331
  190 -106  478 -453
  368 -286  611 -592
  460 -379  683 -659
  546 -461  700 -681
  692 -609  710 -689
  808 -721  633 -598
  827 -737  555 -535
  799 -710  468 -445
  763 -676  425 -396
  729 -647  356 -338
  711 -623  289 -262
  648 -560  226 -202
  586 -501  170 -145
  508 -420   89  -85
  440 -354   77  -59
  417 -329   82  -58
  357 -271   70  -37
  313 -226  105  -74
  283 -197  125  -90
  317 -231  157 -123
  363 -279  245 -212
  396 -309  337 -318
  425 -338  343 -308
  451 -364  342 -309
  484 -394  324 -282
  412 -327  262 -239
  354 -267  258 -227
  333 -246  289 -261
  309 -225  279 -245
  285 -199  234 -214
  335 -246  198 -170
  382 -300  116  -93
  419 -334   79  -55
  373 -288   60  -30
  310 -226   24    4
  306 -223 -101  139
  286 -198 -247  278
  237 -149 -180  218
  173  -88 -105  137
  110  -19   28   50
   38   47   76  -65
    4   82  135 -111
  -22  109   96  -69
  -84  168   97  -73
 -108  194   97  -71
 -111  195   85  -56
  -80  164  169 -140
   19   66  318 -299
  208 -124  473 -444
  371 -288  579 -551
  455 -372  689 -654
999999999999999999999999.
```

```
86-1108 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-5
861108 2 010000    0    -908.9    1044.9   .000050   .000050       24.
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  +95  -13 +170 -161
 +150  -67 +319 -311
 +265 -187 +459 -462
 +381 -298 +478 -467
 +527 -441 +566 -569
 +596 -512 +520 -525
 +657 -575 +426 -431
 +756 -674 +305 -318
 +795 -717 +288 -268
 +642 -559 +119 -114
 +478 -394  +32  -24
 +328 -246  +32  -19
 +197 -117  +74  -73
  +66  +14 +207 -197
  +52  +27 +340 -334
 +191 -108 +468 -465
 +370 -289 +605 -596
 +461 -381 +678 -677
 +547 -463 +692 -696
 +690 -610 +708 -705
 +807 -725 +612 -617
 +826 -742 +546 -546
 +797 -714 +453 -457
 +760 -679 +408 -407
 +728 -651 +341 -344
 +709 -625 +280 -269
 +645 -563 +222 -219
 +585 -503 +159 -161
 +507 -426  +86  -91
 +436 -359  +74  -60
 +416 -332  +72  -69
 +355 -274  +56  -50
 +313 -231  +90  -81
 +281 -200 +114 -109
 +316 -234 +140 -129
 +361 -281 +232 -217
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 +422 -340 +334 -325
 +449 -366 +333 -321
 +479 -396 +311 -301
 +412 -330 +256 -250
 +352 -270 +251 -245
 +333 -251 +279 -269
 +309 -228 +275 -259
 +285 -204 +233 -226
 +331 -250 +191 -184
 +382 -302 +108 -109
 +421 -338  +70  -72
 +376 -293  +47  -42
 +311 -229  +10  -16
 +307 -226 -113 +130
 +283 -200 -267 +272
 +235 -153 -202 +203
 +170  -93 -122 +123
 +109  -24  -46  +52
  +36  +44  +62  -66
   +3  +78 +120 -121
  -23 +107  +81  -81
  -84 +165  +88  -81
 -108 +191  +92  -79
 -111 +192  +74  -74
  -81 +162 +156 -150
  +18  +63 +307 -301
 +207 -124 +468 -448
 +369 -287 +568 -567
 +462 -370 +661 -661
99999999999999999999999.
```

```
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870508 2 010000    0    -908.9    1044.9   .000050   .000050       24.
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  +96    -9 +170 -179
 +147   -61 +330 -311
 +262  -179 +462 -456
 +334  -337 +478 -468
 +570  -394 +577 -574
 +597  -509 +547 -530
 +655  -569 +443 -422
 +756  -669 +336 -319
 +844  -672 +296 -265
 +653  -563 +137 -112
 +490  -400  +47  -24
 +337  -249  +41  -18
 +207  -121  +85  -62
  +68   -17 +216 -200
  +48   +32 +349 -333
 +185  -101 +474 -476
 +367  -287 +616 -604
 +461  -378 +690 -667
 +545  -459 +706 -693
 +682  -599 +717 -710
 +813  -725 +637 -620
 +830  -741 +560 -550
 +801  -711 +466 -455
 +762  -677 +432 -412
 +736  -650 +358 -341
 +712  -625 +294 -269
 +651  -563 +239 -213
 +588  -501 +177 -157
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 +397  -398  +75  -58
 +418  -330  +86  -63
 +356  -272  +60  -56
 +317  -230 +101  -89
 +281  -197 +121 -113
 +317  -232 +150 -128
 +364  -278 +243 -217
 +393  -308 +339 -324
 +424  -334 +350 -316
 +448  -361 +347 -313
 +479  -390 +324 -294
  416  -329  268 -246
  369  -280  258 -242
  375  -289  294 -270
  342  -255  290 -265
  300  -211  247 -224
  341  -253  202 -183
  389  -304  113 -103
  435  -349   82  -83
  395  -309   55  -40
  318  -233   13  -12
  313  -228 -116  128
  284  -196 -256  273
  238  -151 -185  195
  176   -95 -111  124
  110   -20  -31   53
   38    48   78  -61
    4    82  133 -117
  -22   109   81  -72
  -85   169   92  -76
 -108   196   91  -81
 -112   198   80  -66
  -80   167  169 -148
   15    68  323 -297
  209  -125  475 -449
  383  -299  575 -550
  442  -355  653 -623
99999999999999999999999.
```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-5
870622 2 010000     0    -908.9    1044.9   .000050   .000050       24.
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  +80  -25 +194 -123
 +128  -69 +348 -269
 +242 -184 +490 -407
 +312 -344 +499 -433
 +556 -406 +610 -507
 +580 -519 +569 -495
 +637 -578 +458 -392
 +738 -674 +361 -289
 +827 -682 +324 -240
 +638 -578 +160  -83
 +476 -415  +55   +0
 +321 -262  +53  +11
 +194 -137 +104  -30
  +54   +4 +235 -162
  +34  +24 +372 -298
 +172 -106 +498 -417
 +356 -291 +635 -568
 +445 -383 +708 -641
 +531 -465 +730 -663
 +664 -606 +734 -671
 +798 -733 +642 -585
 +816 -751 +582 -518
 +788 -724 +484 -422
 +747 -687 +433 -379
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 +702 -635 +308 -238
 +639 -574 +261 -180
 +578 -512 +203 -129
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 +405 -341 +104  -33
 +347 -281  +85  -28
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 +270 -207 +143  -74
 +314 -240 +172  -92
 +370 -286 +267 -182
 +382 -318 +350 -290
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 +436 -369 +364 -292
 +468 -402 +347 -276
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  355 -292  280 -210
  365 -299  316 -234
  330 -268  311 -227
  286 -222  261 -200
  329 -262  222 -150
  377 -309  150  -71
  424 -358  117  -43
  381 -316   76  -15
  307 -242   43   23
  301 -235  -78  164
  274 -202 -235  310
  227 -160 -162  223
  165 -105  -91  165
   95  -31   -8   84
   23   40  100  -37
   -9   74  155  -93
  -36  102  113  -45
  -98  160  116  -48
 -123  188  124  -50
 -126  190  102  -40
  -93  158  193 -124
    3   56  345 -272
  195 -133  497 -428
  366 -304  601 -521
  465 -393  636 -565
99999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-5
871006 2 010000    0    -908.9    1044.9   .000050   .000050       24.
  +46  -47 +126 -144
  +52  -50 +153 -156
 +104 -103 +295 -315
 +220 -222 +438 -452
 +332 -347 +472 -476
 +487 -441 +567 -574
 +550 -548 +524 -530
 +609 -606 +420 -435
 +710 -708 +318 -335
 +749 -750 +285 -282
 +599 -598 +103 -124
 +437 -434  +16  -39
 +286 -286  +23  -31
 +157 -158  +65  -75
  +21  -20 +190 -204
   +8   -7 +327 -340
 +147 -143 +451 -469
 +324 -326 +587 -598
 +414 -415 +662 -670
 +497 -495 +692 -695
 +642 -638 +699 -705
 +761 -758 +614 -634
 +780 -773 +543 -559
 +749 -743 +452 -471
 +715 -712 +408 -421
 +686 -685 +346 -357
 +663 -660 +283 -291
 +602 -597 +219 -234
 +540 -536 +163 -175
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 +372 -368  +66  -82
 +313 -310  +53  -73
 +270 -268  +80 -100
 +237 -234  +99 -124
 +273 -269 +126 -144
 +320 -316 +218 -230
 +346 -346 +312 -321
 +375 -371 +320 -342
 +400 -397 +316 -340
 +432 -428 +300 -321
  370 -365  255 -259
  322 -319  243 -259
  329 -328  274 -277
  296 -294  269 -274
  253 -250  228 -239
  295 -291  186 -193
  343 -342  108 -115
  391 -388   80  -86
  350 -347   50  -59
  275 -273   11  -24
  272 -269 -126  113
  237 -237 -265  257
  196 -193 -200  190
  136 -137 -128  115
   67  -60  -54   42
   -6    9   59  -72
  -32   42  117 -126
  -64   69   68  -83
 -127  129   72  -85
 -152  156   80  -87
 -155  158   63  -68
 -123  126  147 -157
  -24   25  310 -310
  167 -163  440 -457
  330 -330  541 -554
  411 -412  603 -605
999999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-5
871118 2 010000    0    -908.9    1044.9   .000050   .000050       24.
   49  -47  120 -144
   53  -49  153 -165
  106 -104  297 -323
  222 -226  442 -460
  337 -333  474 -484
  482 -480  561 -576
  550 -548  514 -532
  610 -607  413 -438
  712 -708  312 -336
  750 -747  286 -279
  598 -593  106 -122
  434 -430   17  -36
  285 -254   14  -34
  155 -155   60  -84
   21  -18  185 -212
   10   -8  322 -345
  151 -147  447 -472
  326 -326  583 -605
  413 -415  657 -678
  496 -495  684 -697
  644 -642  690 -709
  762 -759  609 -629
  780 -773  537 -562
  748 -743  443 -472
  714 -711  405 -423
  686 -687  337 -358
  663 -658  273 -291
  602 -598  214 -240
  540 -536  157 -180
  466 -461   88 -109
  394 -391   59  -85
  372 -367   61  -86
  313 -310   45  -71
  271 -267   75  -98
  238 -235   93 -125
  274 -271  119 -147
  319 -318  209 -234
  347 -347  304 -324
  376 -371  313 -346
  400 -398  309 -342
  433 -429  294 -319
  370 -366  246 -264
  323 -321  236 -251
  331 -330  267 -282
  298 -295  261 -280
  255 -252  222 -242
  296 -293  178 -196
  345 -345  107 -121
  398 -390   76  -92
  353 -349   48  -62
  277 -274   10  -33
  274 -269 -129  101
  239 -236 -270  256
  197 -193 -207  185
  137 -140 -137  109
   69  -61  -63   39
   -4    6   54  -75
  -37   39  112 -129
  -63   68   70  -90
 -126  127   66  -90
 -150  154   70  -90
 -154  158   59  -75
 -120  124  142 -163
  -22   22  290 -316
  166 -163  435 -464
  333 -333  534 -553
  404 -402  605 -634
999999999999999999999999.
```

```
86-0123 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6  INITIAL READINGS
860123 1 110000    0    -909.1    1003.1   .000050   .000050       24.
  150  -55  352 -325  0.0
 -121  217  446 -416  0.0
 -373  468  315 -313  0.0
 -486  587  128  -93  0.0
 -468  564  -62   70  0.0
 -388  489 -162  180  0.0
 -367  467 -149  173  0.0
 -307  408  -97  129  0.0
 -211  312   41  -24  0.0
 -160  258  154 -144  0.0
 -149  246  156 -140  0.0
 -185  224  184 -158  0.0
  -76  173  210 -180  0.0
   -1   97  225 -193  0.0
   45   52  268 -232  0.0
   57   39  279 -237  0.0
   38   59  249 -221  0.0
  -19  115  250 -219  0.0
  -68  167  221 -184  0.0
 -167  263  124 -103  0.0
 -264  362   71  -40  0.0
 -277  376   39  -23  0.0
 -208  307   36   -2  0.0
 -148  247    0   37  0.0
 -167  265   63  -33  0.0
 -125  222  187 -143  0.0
 -108  204  177 -155  0.0
  -67  167  194 -166  0.0
  -22  122  238 -215  0.0
    3   92  278 -255  0.0
  -18  117  274 -231  0.0
 -124  223  279 -244  0.0
 -176  275  307 -268  0.0
 -132  228  366 -328  0.0
  -45  140  432 -388  0.0
  -12  109  365 -340  0.0
  -51  155  275 -256  0.0
  -97  196  193 -173  0.0
 -204  304  240 -226  0.0
 -342  440  278 -254  0.0
 -340  438  156 -137  0.0
 -336  434   32   -6  0.0
 -318  418  -19   42  0.0
 -216  314   50   -9  0.0
 -181  279   90  -78  0.0
 -193  315   41    2  0.0
99999999999999999999999.
```

```
86-0401 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860401 1 110000     0    -909.1    1003.1   .000050   .000050       24.
  125  -45  348 -334
 -101  196  457 -449
 -352  448  336 -317
 -476  578  116  -92
 -451  546  -39   73
 -375  479 -144  158
 -383  484 -144  168
 -326  430 -102  112
 -214  319   73  -62
 -146  246  190 -170
  -99  199  161 -144
  -64  164  143 -124
  -15  114  154 -138
   23   72  192 -166
   32   63  262 -237
   24   70  310 -274
    9   87  293 -272
  -17  117  264 -237
  -44  152  213 -190
 -146  249  136 -106
 -246  350   82  -51
 -263  370   42  -34
 -195  302   26  -20
 -136  244   -5   26
 -148  256   50  -38
 -111  217  183 -159
  -92  199  187 -163
  -54  162  194 -178
   -8  118  242 -224
   20   84  285 -270
    6  103  260 -231
 -101  215  291 -262
 -160  271  304 -283
 -115  227  362 -351
  -24  136  429 -413
   12  100  349 -347
  -34  147  280 -255
  -76  190  186 -179
 -181  297  252 -247
 -319  432  290 -275
 -323  437  170 -150
 -314  426   26   -8
 -299  413  -17   25
 -198  311   73  -56
 -159  275  103  -72
 -182  284   26   12
99999999999999999999999.
```

```
86-0513 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860513 2 010000     0    -909.1    1003.1   .000050   .000050       24.
  125  -60  352 -329
 -107  175  462 -444
 -364  433  335 -322
 -490  562  105  -95
 -460  530  -55   75
 -384  461 -131  158
 -396  470 -146  167
 -336  417 -105  111
 -227  303   72  -52
 -159  233  195 -161
 -102  181  170 -138
  -74  145  136 -116
  -24   92  150 -138
   21   50  177 -156
   23   45  253 -232
    8   64  305 -274
   -9   89  284 -276
  -38  113  245 -232
  -59  141  213 -196
 -158  236  128 -109
 -259  337   81  -52
 -277  358   52  -38
 -210  288   43   -8
 -151  230    2   36
 -165  244   52  -23
 -127  204  177 -144
 -108  183  182 -161
  -69  149  192 -175
  -24  102  242 -208
    5   69  288 -256
  -10   89  266 -240
 -118  197  286 -250
 -178  256  310 -268
 -132  211  369 -330
  -42  119  437 -392
   -8   85  361 -327
  -53  132  279 -256
  -94  173  194 -179
 -203  282  247 -217
 -340  419  296 -260
 -344  413  159 -135
 -332  411   52   -2
 -317  398  -31   26
 -221  301   73  -58
 -174  252   75  -59
 -182  278   62  -31
999999999999999999999999.
```

```
86-0616 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860616 2 010000     0    -909.1    1003.1   .000050   .000050       24.
  137  -57  359 -318
  -99  175  461 -432
 -355  436  346 -324
 -478  564  124  -83
 -446  527  -56   76
 -374  463 -137  159
 -388  472 -150  181
 -328  417 -101  116
 -217  303   78  -58
 -152  237  192 -164
  -93  174  160 -140
  -63  140  140 -112
  -14   88  143 -126
   28   48  177 -148
   28   46  246 -222
   10   68  298 -274
  -10   93  300 -279
  -36  118  264 -241
  -57  143  201 -193
 -154  239  123 -103
 -252  340   75  -50
 -272  360   41  -37
 -205  288   34   -2
 -146  233   -3   43
 -160  247   49  -14
 -121  204  171 -147
 -101  186  179 -150
  -64  152  184 -171
  -20  104  234 -214
   10   69  277 -258
   -7   89  257 -236
 -115  199  278 -247
 -172  254  316 -277
 -126  210  375 -337
  -38  119  439 -402
   -5   84  368 -325
  -49  135  280 -257
  -85  171  207 -176
 -197  282  256 -223
 -335  421  280 -278
 -338  422  159 -136
 -325  412   30    2
 -311  397  -10   32
 -208  294   88  -56
 -179  264   89  -50
 -211  282   69  -56
999999999999999999999999.
```

```
86-0716 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860716 2 010000     0    -909.1    1003.1   .000050   .000050       24.
  152  -48  345 -327
  -81  185  455 -444
 -341  445  358 -326
 -469  575  128  -83
 -437  542  -36   79
 -362  473 -132  158
 -377  486 -146  167
 -320  432 -105  121
 -210  318   71  -60
 -144  251  192 -163
  -77  191  169 -135
  -43  152  142 -108
    4  100  141 -120
   45   59  178 -139
   41   59  256 -221
   17   83  305 -283
   -6  111  297 -285
  -30  135  267 -238
  -48  156  208 -194
 -143  251  128 -110
 -244  353   76  -48
 -263  372   49  -21
 -196  304   31   -5
 -137  246  -12   39
 -149  260   42  -11
 -111  218  172 -154
  -91  201  189 -158
  -54  167  199 -168
  -10  122  243 -218
   22   84  292 -264
    5  104  262 -221
 -102  214  283 -262
 -159  270  305 -267
 -114  226  363 -341
  -25  134  429 -400
    6  102  372 -335
  -39   98  280 -260
  -73  183  194 -177
 -184  295  253 -225
 -323  433  291 -263
 -324  435  168 -139
 -313  424   37   -7
 -299  412    1   32
 -198  309   95  -62
 -165  276   95  -57
 -166  291   46  -10
999999999999999999999999.
```

```
86-0819 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860819 2 010000     0    -909.1    1003.1   .000050   .000050       24.
  141  -56  348 -337
  -94  178  463 -439
 -351  437  337 -333
 -477  566  112  -90
 -448  533  -44   78
 -372  463 -140  155
 -387  475 -157  173
 -328  420 -107  127
 -219  308   70  -57
 -159  241  188 -168
  -88  174  166 -145
  -54  136  130 -109
   -2   84  127 -120
   38   45  165 -145
   31   49  245 -239
    6   77  314 -295
  -20  106  303 -296
  -43  128  264 -248
  -55  147  216 -201
 -153  242  128 -112
 -256  343   76  -52
 -275  364   62  -38
 -207  294   45  -12
 -148  236    5   22
 -162  250   52  -25
 -121  207  174 -152
 -101  190  184 -158
  -64  156  201 -169
  -19  111  242 -214
   12   73  285 -257
   -3   91  257 -243
 -113  200  292 -254
 -171  256  311 -279
 -124  211  374 -341
  -35  119  436 -402
   -2   89  357 -341
  -49  136  279 -261
  -81  169  204 -186
 -193  282  255 -227
 -333  420  297 -267
 -334  422  158 -139
 -323  410   36    2
 -311  397   -7   30
 -209  295   84  -61
 -176  261   90  -62
 -189  288   62  -29
999999999999999999999999.
```

```
86-0922 BALL MOUNTAIN DAM, JAMAICA, VT  SI-85-6
860922 2 010000     0    -909.1    1003.1   .000050   .000050       24.
  136  -56  348 -325
  -97  184  454 -437
 -354  442  361 -320
 -478  563  112  -81
 -447  526  -49   85
 -375  460 -129  160
 -390  473 -144  174
 -331  414 -101  121
 -222  301   75  -66
 -160  240  173 -175
  -87  170  160 -128
  -52  132  124  -95
   -3   83  119  -80
   36   44  141 -119
   29   46  239 -214
    3   73  321 -293
  -20  101  339 -315
  -43  123  293 -265
  -54  140  225 -198
 -154  236  125 -106
 -257  339   82  -58
 -277  359   64  -36
 -210  291   41  -16
 -151  232    3   27
 -164  245   48  -17
 -123  203  173 -150
 -105  186  194 -150
  -67  151  201 -165
  -23  106  246 -217
   10   68  283 -260
   -4   86  258 -246
 -116  197  287 -247
 -173  252  311 -280
 -128  208  368 -336
  -39  116  430 -392
   -5   86  366 -332
  -50  131  284 -256
  -89  167  201 -180
 -200  278  255 -229
 -337  416  299 -265
 -340  420  164 -136
 -327  409   34    5
 -314  397   -2   33
 -214  295   79  -51
 -176  256   90  -48
 -174  271   57  -24
999999999999999999999999.
```

```
86-1108 BALL MOUNTAIN DAM, JAMAICA VT  SI-85-6
861108 2 010000    0    -909.1    1003.1   .000050   .000050       24.
 +143  -57 +348 -334
  -89 +177 +449 -437
 -346 +435 +362 -332
 -474 +563 +122  -84
 -446 +537  -44  +79
 -369 +463 -128 +159
 -386 +477 -142 +178
 -328 +421 -104 +135
 -218 +307  +72  -46
 -158 +243 +189 -160
  -84 +173 +171 -143
  -50 +137 +125  -93
   -1  +84 +102  -68
  +39  +45 +127  -98
  +33  +48 +237 -212
   +8  +75 +338 -306
  -16 +103 +350 -333
  -38 +126 +311 -279
  -49 +142 +232 -204
 -146 +236 +133 -112
 -250 +338  +84  -54
 -270 +361  +65  -46
 -204 +293  +37   -9
 -143 +232   -1  +28
 -156 +246  +44  -18
 -119 +206 +177 -141
 -101 +186 +194 -157
  -67 +153 +195 -164
  -20 +107 +240 -206
  +14  +69 +285 -259
   -1  +88 +261 -238
 -114 +200 +290 -255
 -171 +256 +306 -277
 -125 +212 +373 -334
  -37 +121 +435 -396
   -2   89  372 -324
  -48  135  278 -254
  -86  173  202 -171
 -196  281  256 -221
 -331  419  296 -265
 -337  423  161 -130
 -324  412   32    6
 -311  400   -9    9
 -209  297   82  -63
 -166  253   83  -56
 -167  261   69  -34
999999999999999999999999.
```

```
87-0508 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-6
870508 2 010000     0    -909.1    1003.1   .000050   .000050       24.
 +157  -63 +310 -358
  -70 +164 +420 -468
 -333 +430 +329 -375
 -467 +564  +89 -121
 -439 +535  -81  +44
 -356 +455 -164 +137
 -381 +480 -187 +144
 -323 +428 -148  +93
 -212 +311  +33  -82
 -158 +212 +155 -195
  -68 +225 +136 -165
  -53 +148  +59  -80
   -6  +98   +7  -20
  +38  +55  +19  -53
  +37  +54 +177 -215
  +19  +75 +352 -397
   -1 +101 +412 -470
  -25 +124 +341 -393
  -31 +136 +212 -260
 -134 +233  +99 -148
 -240 +338  +53  -87
 -264 +365  +25  -74
 -200 +299   +2  -53
 -137 +237  -30   -9
 -146 +247  +15  -58
 -113 +212 +140 -187
  -94 +191 +156 -199
  -61 +160 +161 -204
  -15 +115 +204 -257
  +22  +72 +253 -296
   +6  +93 +229 -288
 -103 +200 +256 -285
 -165 +260 +276 -313
 -122 +220 +342 -393
  -24 +121 +403 -432
   +6  +75 +343 -363
  -40 +138 +250 -294
  -86 +186 +168 -206
 -200 +299 +213 -251
 -318 +419 +270 -315
 -311 +412 +157 -190
 -299  399    5  -36
 -303  404  -43  -10
 -222  323   54  -88
 -164  265   61  -99
 -180  273   -8  -31
99999999999999999999999.
```

```
87-0622 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-6
870622 2 010000    0    -909.1    1003.1   .000050   .000050       24.
 +139  -72 +372 -303
  -87 +155 +486 -417
 -352 +420 +384 -321
 -485 +551 +150  -72
 -454 +520  -36  +96
 -369 +445 -107 +190
 -397 +466 -126 +192
 -339 +412  -80 +156
 -229 +298  +96  -18
 -172 +238 +211 -132
  -86 +174 +185 -115
  -67 +134  +95   -3
  -17  +82  +18  +80
  +27  +36  +40  +36
  +26  +36 +230 -152
   +8  +58 +438 -356
  -16  +87 +519 -448
  -45 +113 +442 -374
  -55 +127 +296 -216
 -150 +221 +162  -92
 -254 +328 +108  -30
 -282 +354  +72  -23
 -217 +287  +55  +18
 -155 +224  +23  +49
 -165 +235  +61   +0
 -129 +198 +197 -117
 -111 +181 +207 -135
  -75 +150 +222 -139
  -29 +101 +262 -187
   +7  +59 +311 -230
   -7  +81 +282 -218
 -120 +191 +306 -230
 -180 +249 +333 -265
 -134 +204 +393 -328
  -45 +110 +456 -377
  +12  +80 +383 -316
  -58 +128 +293 -238
 -104 +171 +223 -155
 -217 +286 +271 -197
 -336 +404 +317 -263
 -330 +400 +206 -130
 -314  389   60   24
 -313  387   -1   45
 -231  303  112  -46
 -181  255  107  -44
 -203  280   29   45
999999999999999999999999.
```

```
87-1006 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-6
871006 2 010000    0    -909.1    1003.1   .000050   .000050       24.
 +105 -102 +342 -343
 -126 +126 +437 -454
 -389 +393 +340 -359
 -508 +514  +97 -125
 -473 +477  -66  +39
 -400 +404 -147 +146
 -428 +435 -165 +160
 -368 +375 -132 +122
 -257 +260  +50  -59
 -201 +208 +161 -170
 -127 +133 +132 -140
  -89  +90   +3  -20
  -32  +27  -73  +61
  +15  -20  -38  +21
   +4   -8 +172 -194
  -32  +33 +402 -415
  -65  +76 +498 -512
  -92 +101 +417 -436
  -94 +101 +255 -274
 -184 +190 +120 -134
 -287 +294  +64  -72
 -312 +319  +32  -56
 -247 +253  +17  -27
 -183 +189  -15   +5
 -195 +200  +19  -30
 -159 +165 +140 -156
 -141 +145 +167 -182
 -108 +116 +173 -193
  -60  +67 +211 -227
  -25  +26 +262 -275
  -35  +42 +239 -253
 -150 +157 +258 -280
 -210 +212 +278 -301
 -167 +171 +345 -359
  -79  +80 +394 -415
  -50  +28 +347 -354
  -88  +93 +255 -281
 -134 +138 +183 -205
 -249 +253 +218 -231
 -365 +370 +270 -280
 -358 +364 +158 -182
 -346 +352   +8  -30
 -346 +352  -49  +29
 -260 +267  +63  -85
 -185 +183 +110 -126
 -170 +150  +65  -94
999999999999999999999999.
```

```
87-1118 BALL MOUNTAIN DAM, JAMAICA, VT   SI-85-6
871118 2 010000     0    -909.1    1003.1   .000050   .000050       24.
   98  -96  316 -357
 -139  138  433 -456
 -398  400  328 -369
 -506  512   87 -115
 -468  472  -78   46
 -402  408 -149  141
 -430  433 -177  159
 -365  369 -116  104
 -253  257   49  -71
 -201  204  159 -182
 -124  127  123 -135
  -80   82  -10  -17
  -26   27  -72   53
   12   -8  -28    0
   -4    5  186 -211
  -38   35  402 -418
  -65   63  483 -490
  -87   83  411 -431
  -92   97  251 -267
 -189  191  119 -144
 -292  293   61  -79
 -311  313   46  -46
 -246  249   15  -30
 -183  187  -15   -1
 -196  200   20  -42
 -157  162  133 -158
 -139  143  167 -187
 -109  115  169 -197
  -59   64  212 -228
  -25   24  256 -277
  -38   43  236 -260
 -152  156  254 -280
 -210  212  275 -301
 -164  167  341 -363
  -78   79  392 -416
  -39   45  346 -359
  -87   93  260 -283
 -136  140  189 -204
 -249  253  244 -232
 -364  368  261 -284
 -357  362  154 -179
 -346  349   10  -30
 -347  351  -49   32
 -257  260   63  -93
 -184  187  114 -129
 -194  185   68  -91
99999999999999999999999.
```

APPENDIX E

COMPUTER OUTPUT FILES

1**** 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS
DATE JAN. 23, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 112 B-B MEAN BIAS = 20 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

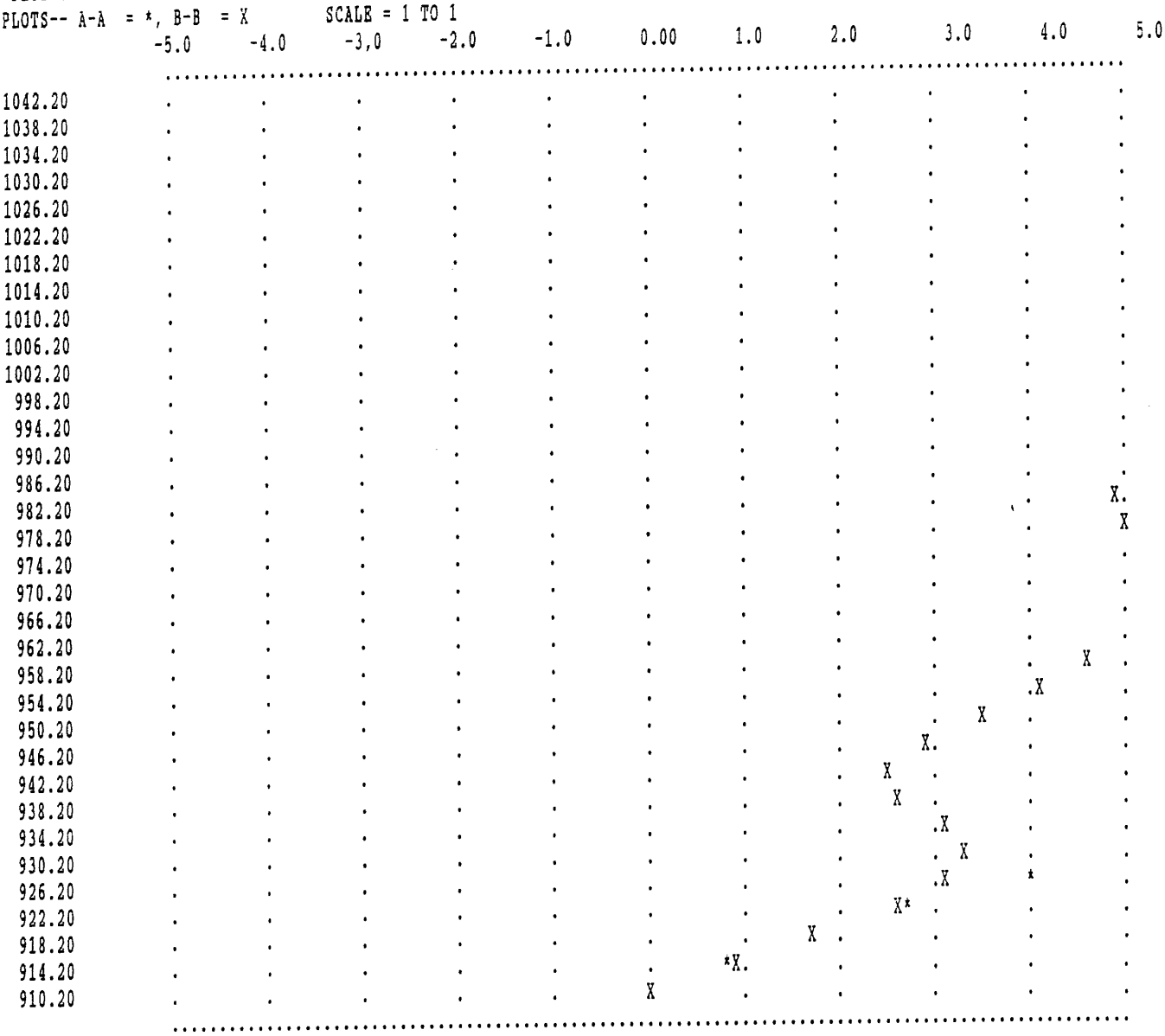
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	21.453	11.300
1040.20	22.292	11.519
1038.20	22.819	11.617
1036.20	22.809	11.555
1034.20	22.650	11.402
1032.20	22.376	11.246
1030.20	22.030	11.119
1028.20	21.683	10.928
1026.20	21.305	10.676
1024.20	20.923	10.295
1022.20	20.524	9.844
1020.20	20.177	9.420
1018.20	19.895	9.050
1016.20	19.708	8.716
1014.20	19.560	8.395
1012.20	19.477	8.101
1010.20	19.499	7.817
1008.20	19.529	7.538
1006.20	19.595	7.265
1004.20	19.680	6.992
1002.20	19.780	6.742
1000.20	19.820	6.518
998.20	19.790	6.301
996.20	19.697	6.030
994.20	19.550	5.742
992.20	19.354	5.493
990.20	19.097	5.308
988.20	18.805	5.177
986.20	18.429	5.051
984.20	17.989	4.932
982.20	17.572	4.859
980.20	17.152	4.898
978.20	16.739	4.985
976.20	16.316	5.081
974.20	15.857	5.210
972.20	15.369	5.313
970.20	14.853	5.357
968.20	14.274	5.333
966.20	13.681	5.285
964.20	13.105	5.197
962.20	12.485	5.057
960.20	11.852	4.868
958.20	11.226	4.636
956.20	10.611	4.373
954.20	10.014	4.101
952.20	9.451	3.815
950.20	8.990	3.525
948.20	8.621	3.206
946.20	8.296	2.872
944.20	8.033	2.653
942.20	7.838	2.492
940.20	7.631	2.455

938.20	7.353	2.576
936.20	6.961	2.821
934.20	6.466	3.073
932.20	5.888	3.206
930.20	5.209	3.259
928.20	4.540	3.195
926.20	3.953	3.056
924.20	3.348	2.871
922.20	2.723	2.567
920.20	2.155	2.158
918.20	1.668	1.745
916.20	1.213	1.348
914.20	.802	.928
912.20	.390	.476
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = 20.61
B-B DEFLECTION = 11.08
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1 INITIAL READINGS

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

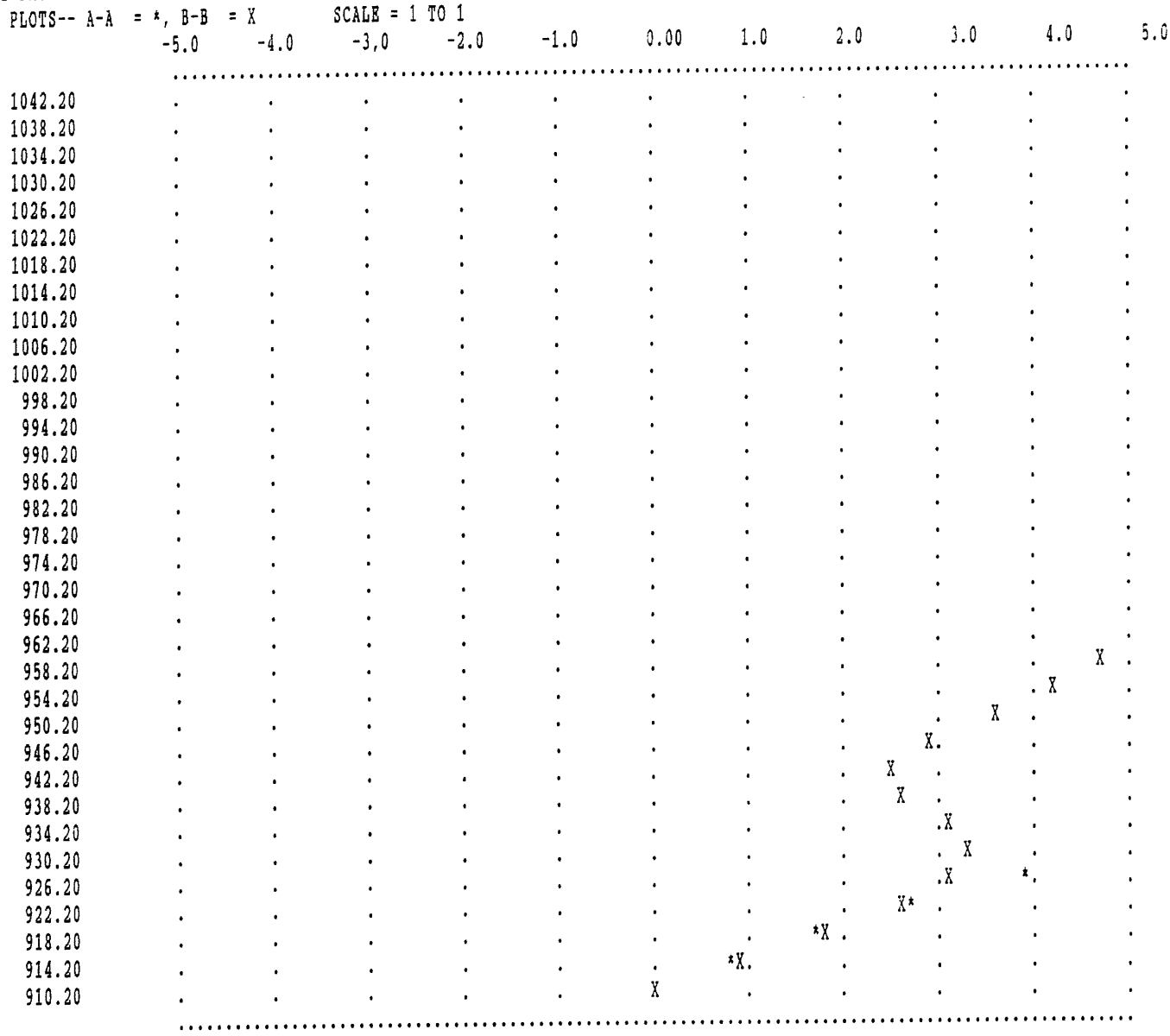


938.20	7.381	2.631
936.20	6.980	2.874
934.20	6.475	3.111
932.20	5.885	3.230
930.20	5.200	3.271
928.20	4.534	3.200
926.20	3.947	3.063
924.20	3.337	2.882
922.20	2.713	2.582
920.20	2.151	2.177
918.20	1.663	1.761
916.20	1.210	1.356
914.20	.800	.931
912.20	.389	.481
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = 20.88
B-B DEFLECTION = 11.22
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE APR. 1, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 73 B-B MEAN BIAS = 11 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	21.739	11.464
1040.20	22.593	11.713
1038.20	23.100	11.833
1036.20	23.078	11.776
1034.20	22.914	11.620
1032.20	22.635	11.468
1030.20	22.285	11.339
1028.20	21.933	11.144
1026.20	21.551	10.886
1024.20	21.164	10.493
1022.20	20.759	10.042
1020.20	20.410	9.620
1018.20	20.126	9.246
1016.20	19.939	8.917
1014.20	19.792	8.599
1012.20	19.682	8.328
1010.20	19.702	8.048
1008.20	19.728	7.771
1006.20	19.796	7.502
1004.20	19.877	7.223
1002.20	19.972	6.966
1000.20	20.010	6.737
998.20	19.977	6.526
996.20	19.882	6.247
994.20	19.732	5.955
992.20	19.532	5.699
990.20	19.273	5.512
988.20	18.956	5.384
986.20	18.545	5.252
984.20	18.080	5.131
982.20	17.656	5.057
980.20	17.233	5.101
978.20	16.817	5.184
976.20	16.390	5.272
974.20	15.928	5.381
972.20	15.437	5.483
970.20	14.918	5.515
968.20	14.334	5.473
966.20	13.738	5.410
964.20	13.160	5.309
962.20	12.538	5.162
960.20	11.903	4.958
958.20	11.275	4.720
956.20	10.659	4.453
954.20	10.061	4.177
952.20	9.495	3.887
950.20	9.036	3.586
948.20	8.666	3.257
946.20	8.335	2.915
944.20	8.074	2.704
942.20	7.877	2.534
940.20	7.667	2.505

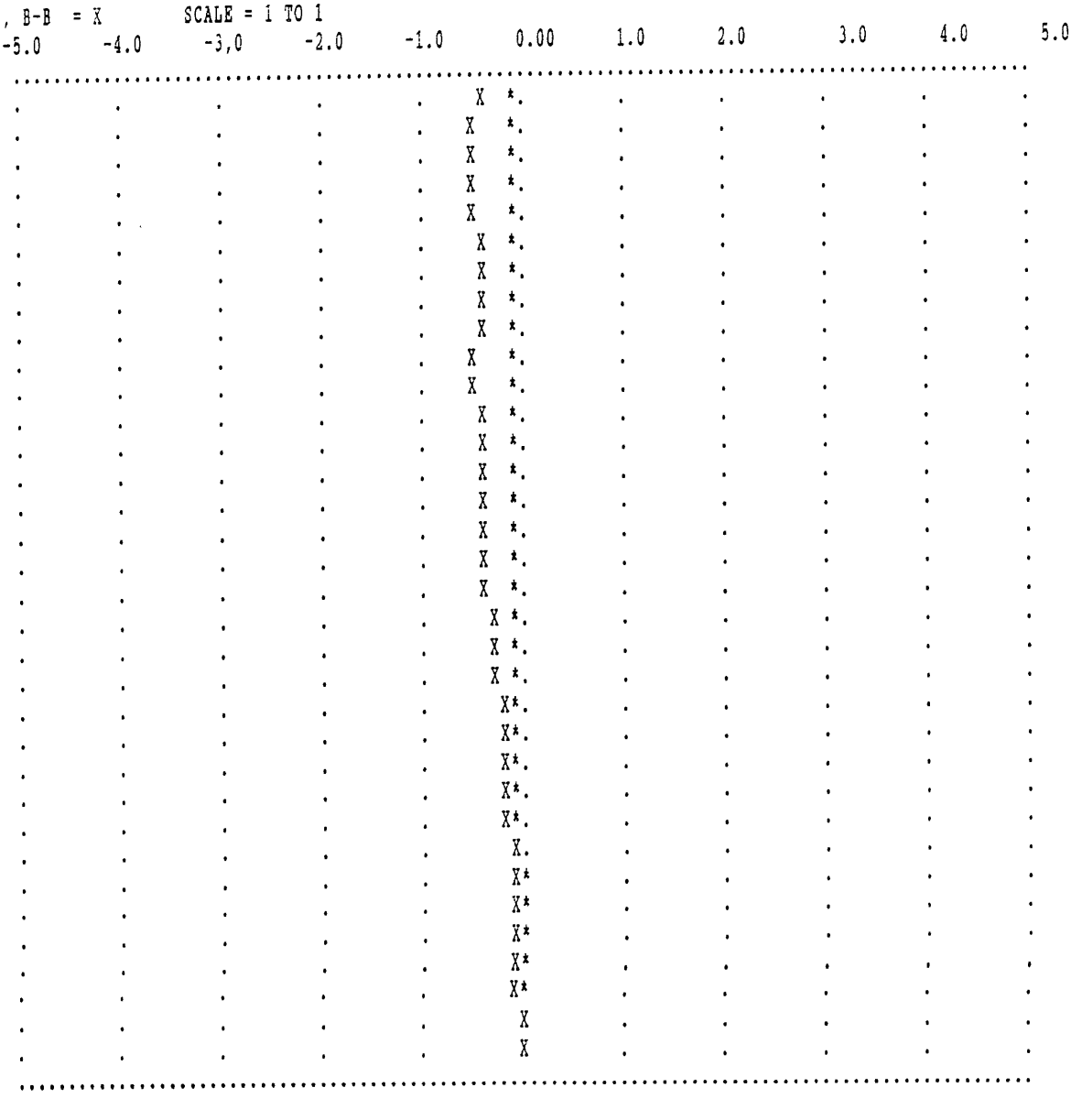
1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE MAY 13, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 72 B-B MEAN BIAS = 21 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.091	-.365
1040.20	-.104	-.419
1038.20	-.093	-.460
1036.20	-.091	-.468
1034.20	-.091	-.457
1032.20	-.092	-.458
1030.20	-.090	-.461
1028.20	-.091	-.460
1026.20	-.090	-.455
1024.20	-.088	-.444
1022.20	-.085	-.440
1020.20	-.083	-.436
1018.20	-.082	-.428
1016.20	-.081	-.428
1014.20	-.080	-.432
1012.20	-.081	-.436
1010.20	-.079	-.443
1008.20	-.077	-.449
1006.20	-.079	-.458
1004.20	-.079	-.460
1002.20	-.078	-.454
1000.20	-.077	-.444
998.20	-.079	-.446
996.20	-.079	-.437
994.20	-.079	-.437
992.20	-.079	-.426
990.20	-.079	-.415
988.20	-.083	-.414
986.20	-.090	-.407
984.20	-.092	-.399
982.20	-.091	-.392
980.20	-.091	-.390
978.20	-.089	-.376
976.20	-.088	-.360
974.20	-.085	-.352
972.20	-.083	-.333
970.20	-.082	-.318
968.20	-.080	-.303
966.20	-.079	-.283
964.20	-.079	-.269
962.20	-.077	-.250
960.20	-.077	-.231
958.20	-.076	-.222
956.20	-.074	-.218
954.20	-.073	-.217
952.20	-.070	-.204
950.20	-.067	-.194
948.20	-.064	-.187
946.20	-.062	-.173
944.20	-.061	-.167
942.20	-.059	-.160
940.20	-.058	-.154

938.20	-.055	-.146
936.20	-.050	-.139
934.20	-.044	-.128
932.20	-.034	-.113
930.20	-.032	-.093
928.20	-.031	-.088
926.20	-.028	-.087
924.20	-.025	-.083
922.20	-.023	-.080
920.20	-.019	-.076
918.20	-.014	-.061
916.20	-.011	-.037
914.20	-.008	-.027
912.20	-.006	-.014
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.08
B-B DEFLECTION = -.31
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



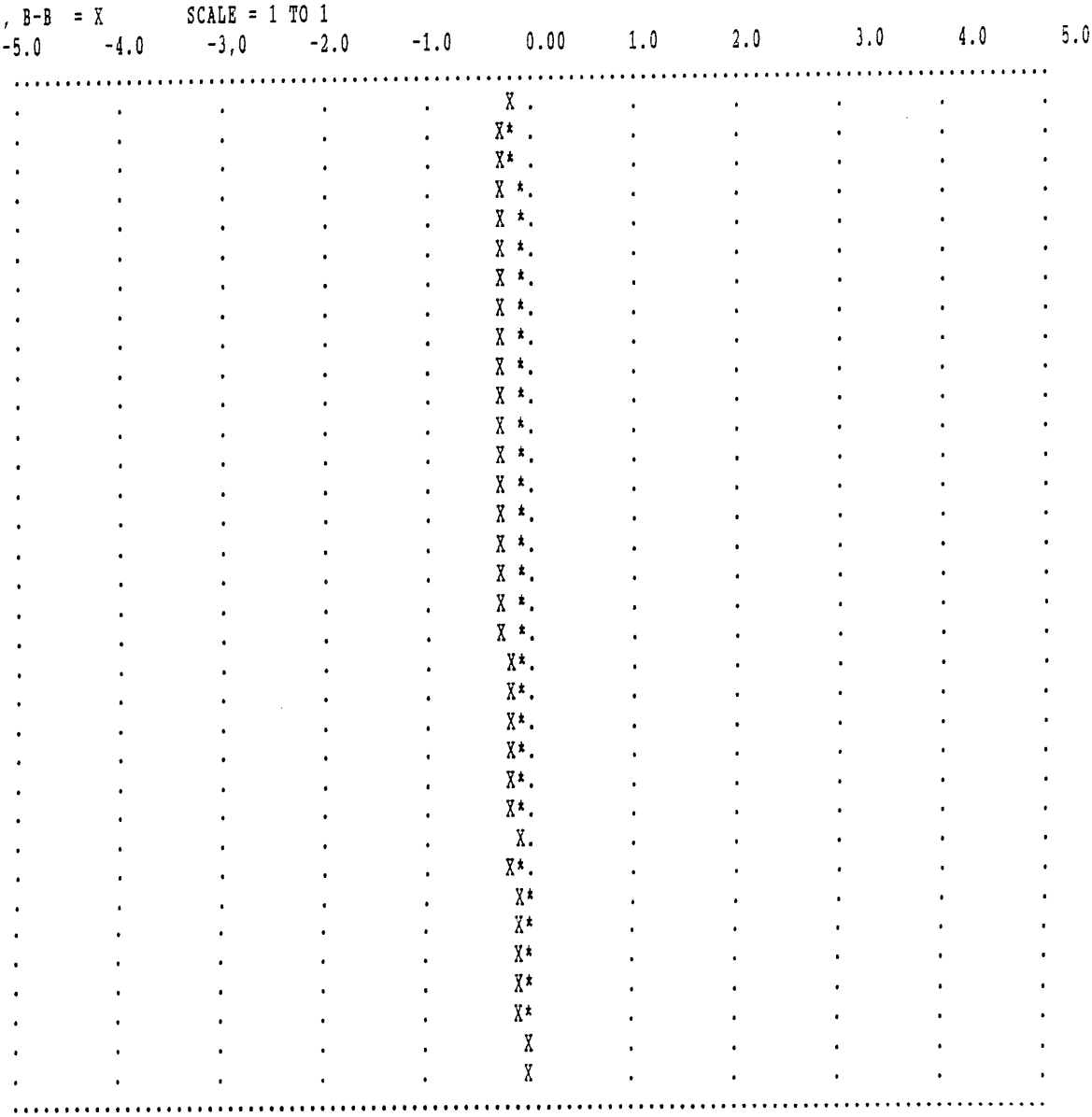
1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE JUNE 16, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 82 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.160	-.223
1040.20	-.165	-.271
1038.20	-.151	-.303
1036.20	-.146	-.317
1034.20	-.151	-.320
1032.20	-.151	-.324
1030.20	-.147	-.328
1028.20	-.150	-.328
1026.20	-.149	-.323
1024.20	-.148	-.323
1022.20	-.144	-.325
1020.20	-.142	-.320
1018.20	-.141	-.313
1016.20	-.141	-.316
1014.20	-.140	-.325
1012.20	-.140	-.326
1010.20	-.135	-.331
1008.20	-.133	-.328
1006.20	-.135	-.328
1004.20	-.133	-.328
1002.20	-.129	-.320
1000.20	-.126	-.313
998.20	-.127	-.318
996.20	-.125	-.313
994.20	-.123	-.303
992.20	-.121	-.301
990.20	-.118	-.295
988.20	-.119	-.298
986.20	-.123	-.298
984.20	-.125	-.291
982.20	-.124	-.289
980.20	-.120	-.286
978.20	-.116	-.286
976.20	-.111	-.273
974.20	-.105	-.265
972.20	-.100	-.267
970.20	-.097	-.269
968.20	-.093	-.257
966.20	-.092	-.246
964.20	-.092	-.236
962.20	-.089	-.230
960.20	-.089	-.218
958.20	-.086	-.210
956.20	-.084	-.203
954.20	-.083	-.199
952.20	-.081	-.190
950.20	-.080	-.184
948.20	-.079	-.175
946.20	-.079	-.166
944.20	-.077	-.163
942.20	-.076	-.148
940.20	-.071	-.151

938.20	-.064	-.153
936.20	-.056	-.151
934.20	-.047	-.131
932.20	-.033	-.119
930.20	-.029	-.098
928.20	-.026	-.094
926.20	-.023	-.084
924.20	-.020	-.083
922.20	-.020	-.088
920.20	-.020	-.078
918.20	-.016	-.062
916.20	-.013	-.038
914.20	-.008	-.021
912.20	-.007	-.013
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.16
B-B DEFLECTION = -.17
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



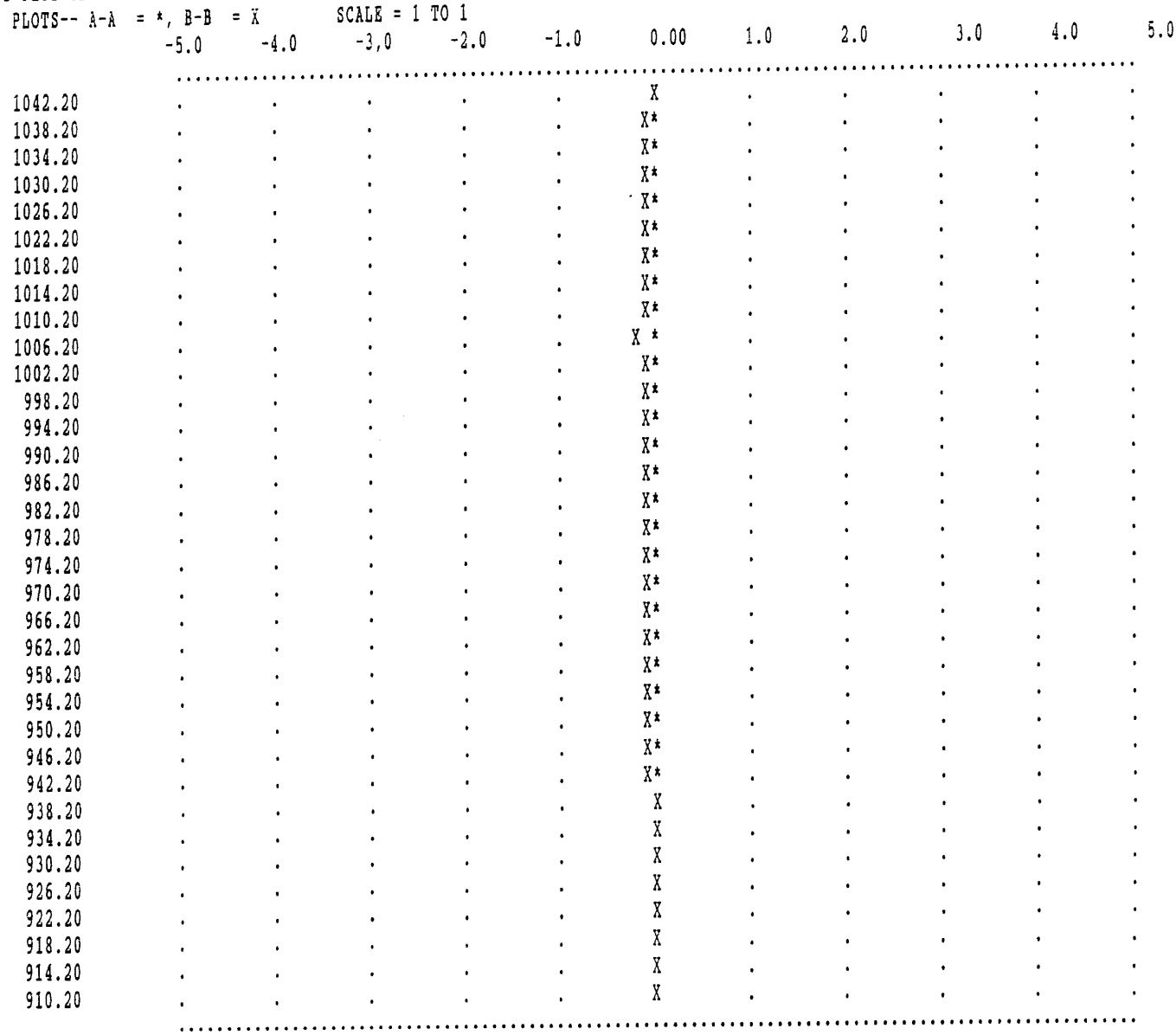
1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE JULY 16, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 93 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.037	.029
1040.20	-.043	-.044
1038.20	-.033	-.092
1036.20	-.034	-.112
1034.20	-.039	-.116
1032.20	-.039	-.113
1030.20	-.036	-.117
1028.20	-.040	-.114
1026.20	-.037	-.111
1024.20	-.032	-.109
1022.20	-.030	-.112
1020.20	-.027	-.113
1018.20	-.023	-.114
1016.20	-.022	-.116
1014.20	-.022	-.129
1012.20	-.019	-.138
1010.20	-.016	-.143
1008.20	-.014	-.149
1006.20	-.016	-.154
1004.20	-.015	-.152
1002.20	-.010	-.148
1000.20	-.006	-.142
998.20	-.005	-.148
996.20	-.004	-.148
994.20	-.002	-.148
992.20	-.002	-.146
990.20	.000	-.147
988.20	-.001	-.155
986.20	-.009	-.143
984.20	-.011	-.146
982.20	-.008	-.143
980.20	-.005	-.134
978.20	-.004	-.133
976.20	-.001	-.119
974.20	.001	-.108
972.20	.002	-.103
970.20	.002	-.102
968.20	.004	-.094
966.20	.005	-.086
964.20	.005	-.088
962.20	.005	-.086
960.20	.005	-.079
958.20	.005	-.078
956.20	.007	-.079
954.20	.006	-.080
952.20	.007	-.079
950.20	.008	-.076
948.20	.007	-.074
946.20	.005	-.068
944.20	.004	-.065
942.20	.006	-.056
940.20	.008	-.049

938.20	.009	-.041
936.20	.011	-.029
934.20	.014	-.023
932.20	.023	-.026
930.20	.023	-.015
928.20	.025	-.026
926.20	.025	-.017
924.20	.023	-.015
922.20	.020	-.025
920.20	.022	-.025
918.20	.021	-.023
916.20	.022	-.015
914.20	.021	-.005
912.20	.020	-.005
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.03
B-B DEFLECTION = .10
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



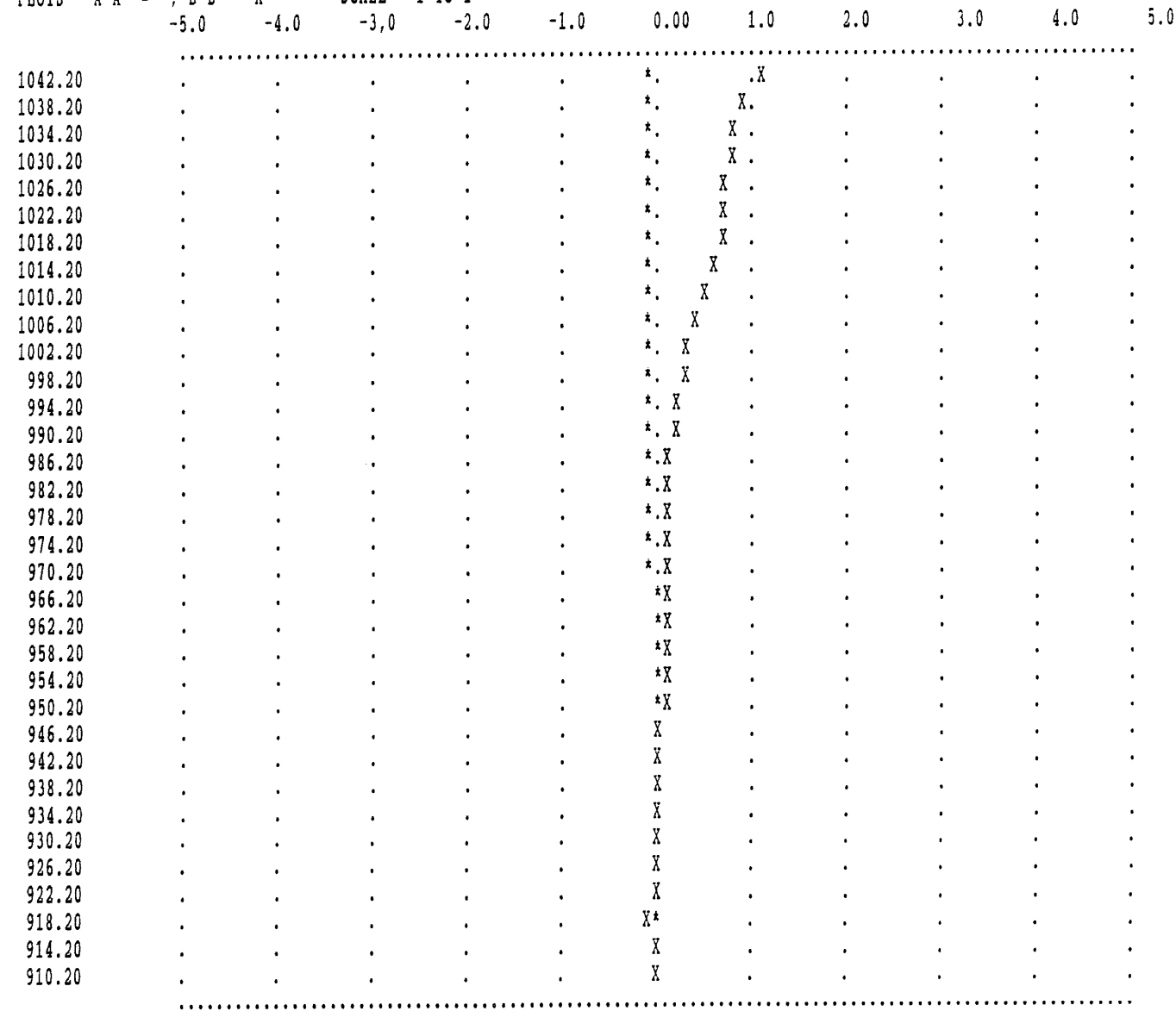
1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE AUG. 19, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 85 B-B MEAN BIAS = 60 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.062	1.147
1040.20	-.068	1.001
1038.20	-.053	.898
1036.20	-.054	.848
1034.20	-.062	.823
1032.20	-.065	.802
1030.20	-.063	.778
1028.20	-.071	.756
1026.20	-.072	.743
1024.20	-.071	.728
1022.20	-.073	.706
1020.20	-.072	.689
1018.20	-.071	.670
1016.20	-.071	.640
1014.20	-.073	.601
1012.20	-.071	.559
1010.20	-.067	.518
1008.20	-.065	.474
1006.20	-.067	.426
1004.20	-.065	.383
1002.20	-.058	.349
1000.20	-.055	.323
998.20	-.054	.281
996.20	-.053	.247
994.20	-.053	.215
992.20	-.053	.185
990.20	-.051	.159
988.20	-.053	.137
986.20	-.065	.130
984.20	-.066	.117
982.20	-.064	.103
980.20	-.061	.106
978.20	-.060	.092
976.20	-.058	.099
974.20	-.055	.098
972.20	-.052	.095
970.20	-.051	.084
968.20	-.050	.086
966.20	-.048	.090
964.20	-.047	.088
962.20	-.048	.085
960.20	-.050	.089
958.20	-.049	.089
956.20	-.048	.083
954.20	-.049	.080
952.20	-.047	.072
950.20	-.043	.060
948.20	-.041	.047
946.20	-.041	.035
944.20	-.037	.019
942.20	-.035	.010
940.20	-.033	-.003

938.20	-.032	-.013
936.20	-.031	-.011
934.20	-.027	-.005
932.20	-.017	-.006
930.20	-.018	.005
928.20	-.015	-.005
926.20	-.013	-.010
924.20	-.013	-.017
922.20	-.016	-.041
920.20	-.013	-.056
918.20	-.012	-.065
916.20	-.008	-.042
914.20	-.006	-.020
912.20	-.006	-.008
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.06
B-B DEFLECTION = 1.29
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE SEP. 22, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 87 B-B MEAN BIAS = 34 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

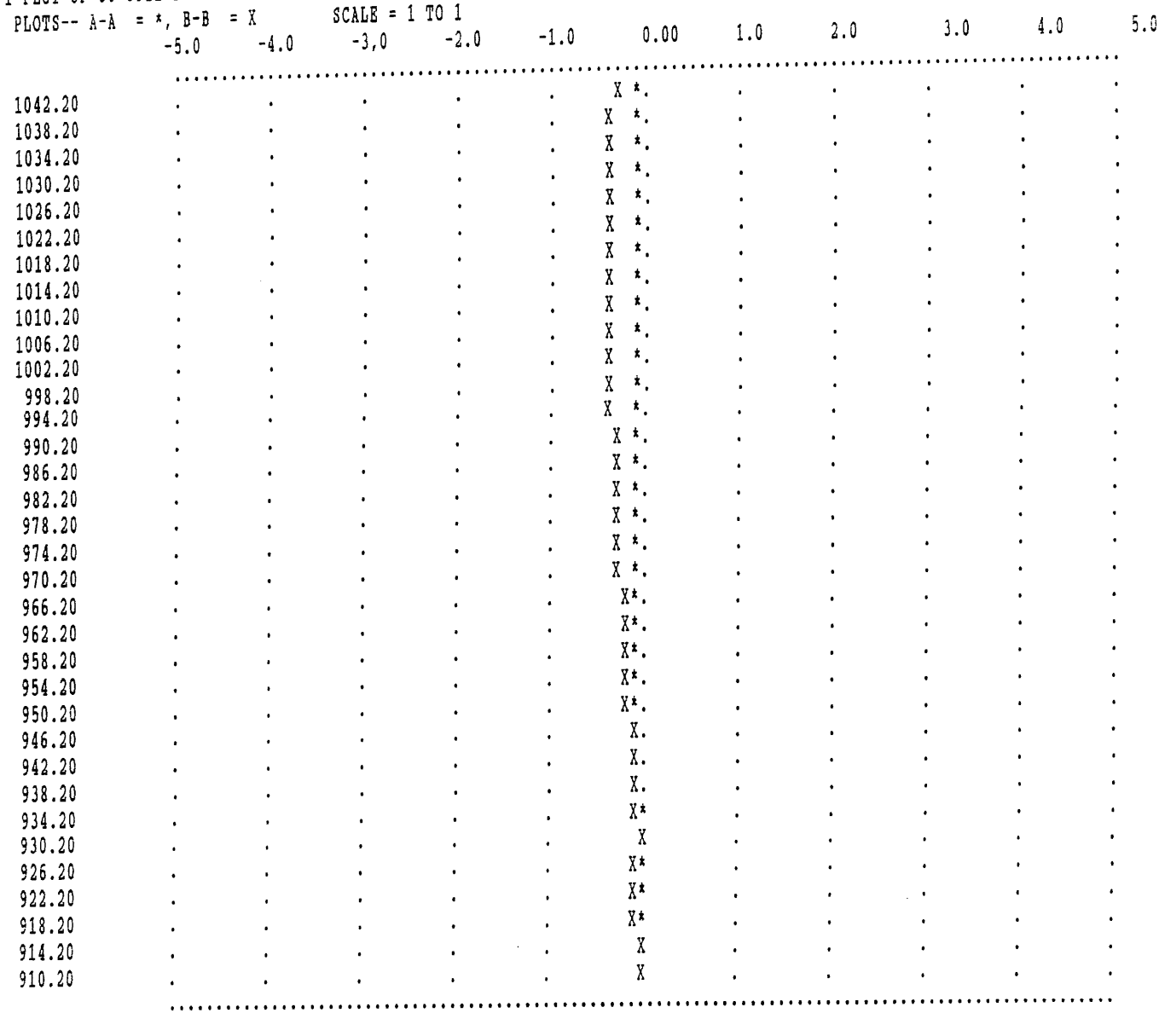
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.085	-.290
1040.20	-.095	-.366
1038.20	-.085	-.397
1036.20	-.086	-.406
1034.20	-.103	-.397
1032.20	-.104	-.396
1030.20	-.097	-.402
1028.20	-.107	-.401
1026.20	-.108	-.395
1024.20	-.107	-.390
1022.20	-.105	-.385
1020.20	-.100	-.384
1018.20	-.097	-.382
1016.20	-.095	-.381
1014.20	-.098	-.388
1012.20	-.096	-.394
1010.20	-.089	-.394
1008.20	-.089	-.398
1006.20	-.091	-.398
1004.20	-.091	-.395
1002.20	-.081	-.387
1000.20	-.071	-.375
998.20	-.068	-.377
996.20	-.062	-.368
994.20	-.059	-.364
992.20	-.058	-.355
990.20	-.053	-.348
988.20	-.053	-.350
986.20	-.067	-.343
984.20	-.068	-.335
982.20	-.070	-.329
980.20	-.076	-.317
978.20	-.080	-.313
976.20	-.082	-.292
974.20	-.080	-.280
972.20	-.080	-.270
970.20	-.079	-.263
968.20	-.079	-.250
966.20	-.079	-.236
964.20	-.080	-.232
962.20	-.082	-.224
960.20	-.083	-.209
958.20	-.081	-.201
956.20	-.079	-.194
954.20	-.075	-.188
952.20	-.070	-.175
950.20	-.068	-.167
948.20	-.067	-.158
946.20	-.067	-.142
944.20	-.064	-.128
942.20	-.064	-.114
940.20	-.060	-.104

938.20	-.055	-.092
936.20	-.052	-.077
934.20	-.047	-.071
932.20	-.033	-.068
930.20	-.032	-.050
928.20	-.026	-.064
926.20	-.022	-.061
924.20	-.022	-.058
922.20	-.023	-.066
920.20	-.021	-.068
918.20	-.020	-.061
916.20	-.014	-.043
914.20	-.008	-.026
912.20	-.005	-.013
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.07
B-B DEFLECTION = -.21
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE NOV. 8, 1986
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 86 B-B MEAN BIAS = 27 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.146	-.090
1040.20	-.156	-.158
1038.20	-.148	-.172
1036.20	-.147	-.178
1034.20	-.153	-.169
1032.20	-.155	-.168
1030.20	-.153	-.175
1028.20	-.160	-.178
1026.20	-.160	-.174
1024.20	-.158	-.173
1022.20	-.158	-.178
1020.20	-.155	-.179
1018.20	-.154	-.180
1016.20	-.154	-.182
1014.20	-.154	-.192
1012.20	-.154	-.201
1010.20	-.151	-.206
1008.20	-.152	-.213
1006.20	-.155	-.218
1004.20	-.155	-.220
1002.20	-.149	-.212
1000.20	-.143	-.197
998.20	-.143	-.201
996.20	-.139	-.197
994.20	-.137	-.195
992.20	-.133	-.193
990.20	-.128	-.199
988.20	-.127	-.210
986.20	-.140	-.205
984.20	-.141	-.205
982.20	-.137	-.209
980.20	-.134	-.202
978.20	-.131	-.201
976.20	-.127	-.185
974.20	-.121	-.173
972.20	-.116	-.166
970.20	-.113	-.165
968.20	-.109	-.157
966.20	-.106	-.152
964.20	-.105	-.151
962.20	-.103	-.150
960.20	-.101	-.142
958.20	-.098	-.133
956.20	-.094	-.133
954.20	-.092	-.131
952.20	-.089	-.125
950.20	-.085	-.115
948.20	-.082	-.106
946.20	-.083	-.097
944.20	-.079	-.089
942.20	-.076	-.079
940.20	-.071	-.076

938.20	-.065	-.074
936.20	-.059	-.067
934.20	-.052	-.058
932.20	-.037	-.059
930.20	-.034	-.050
928.20	-.029	-.057
926.20	-.026	-.050
924.20	-.023	-.049
922.20	-.024	-.057
920.20	-.022	-.058
918.20	-.019	-.055
916.20	-.016	-.040
914.20	-.009	-.023
912.20	-.007	-.017
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.14
B-B DEFLECTION = -.02
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.20         .        .        .        .        .        X.       .        .        .        .        .
1038.20         .        .        .        .        .        X*.      .        .        .        .        .
1034.20         .        .        .        .        .        X .      .        .        .        .        .
1030.20         .        .        .        .        .        X .      .        .        .        .        .
1026.20         .        .        .        .        .        X .      .        .        .        .        .
1022.20         .        .        .        .        .        X .      .        .        .        .        .
1018.20         .        .        .        .        .        X .      .        .        .        .        .
1014.20         .        .        .        .        .        X .      .        .        .        .        .
1010.20         .        .        .        .        .        X .      .        .        .        .        .
1006.20         .        .        .        .        .        X .      .        .        .        .        .
1002.20         .        .        .        .        .        X*.      .        .        .        .        .
 998.20         .        .        .        .        .        X*.      .        .        .        .        .
 994.20         .        .        .        .        .        X*.      .        .        .        .        .
 990.20         .        .        .        .        .        X*.      .        .        .        .        .
 986.20         .        .        .        .        .        X*.      .        .        .        .        .
 982.20         .        .        .        .        .        X*.      .        .        .        .        .
 978.20         .        .        .        .        .        X*.      .        .        .        .        .
 974.20         .        .        .        .        .        X*.      .        .        .        .        .
 970.20         .        .        .        .        .        X*.      .        .        .        .        .
 966.20         .        .        .        .        .        X*.      .        .        .        .        .
 962.20         .        .        .        .        .        X*.      .        .        .        .        .
 958.20         .        .        .        .        .        X.       .        .        .        .        .
 954.20         .        .        .        .        .        X.       .        .        .        .        .
 950.20         .        .        .        .        .        X.       .        .        .        .        .
 946.20         .        .        .        .        .        X.       .        .        .        .        .
 942.20         .        .        .        .        .        X.       .        .        .        .        .
 938.20         .        .        .        .        .        X.       .        .        .        .        .
 934.20         .        .        .        .        .        X.       .        .        .        .        .
 930.20         .        .        .        .        .         X       .        .        .        .        .
 926.20         .        .        .        .        .         X       .        .        .        .        .
 922.20         .        .        .        .        .        X*       .        .        .        .        .
 918.20         .        .        .        .        .        X*       .        .        .        .        .
 914.20         .        .        .        .        .         X       .        .        .        .        .
 910.20         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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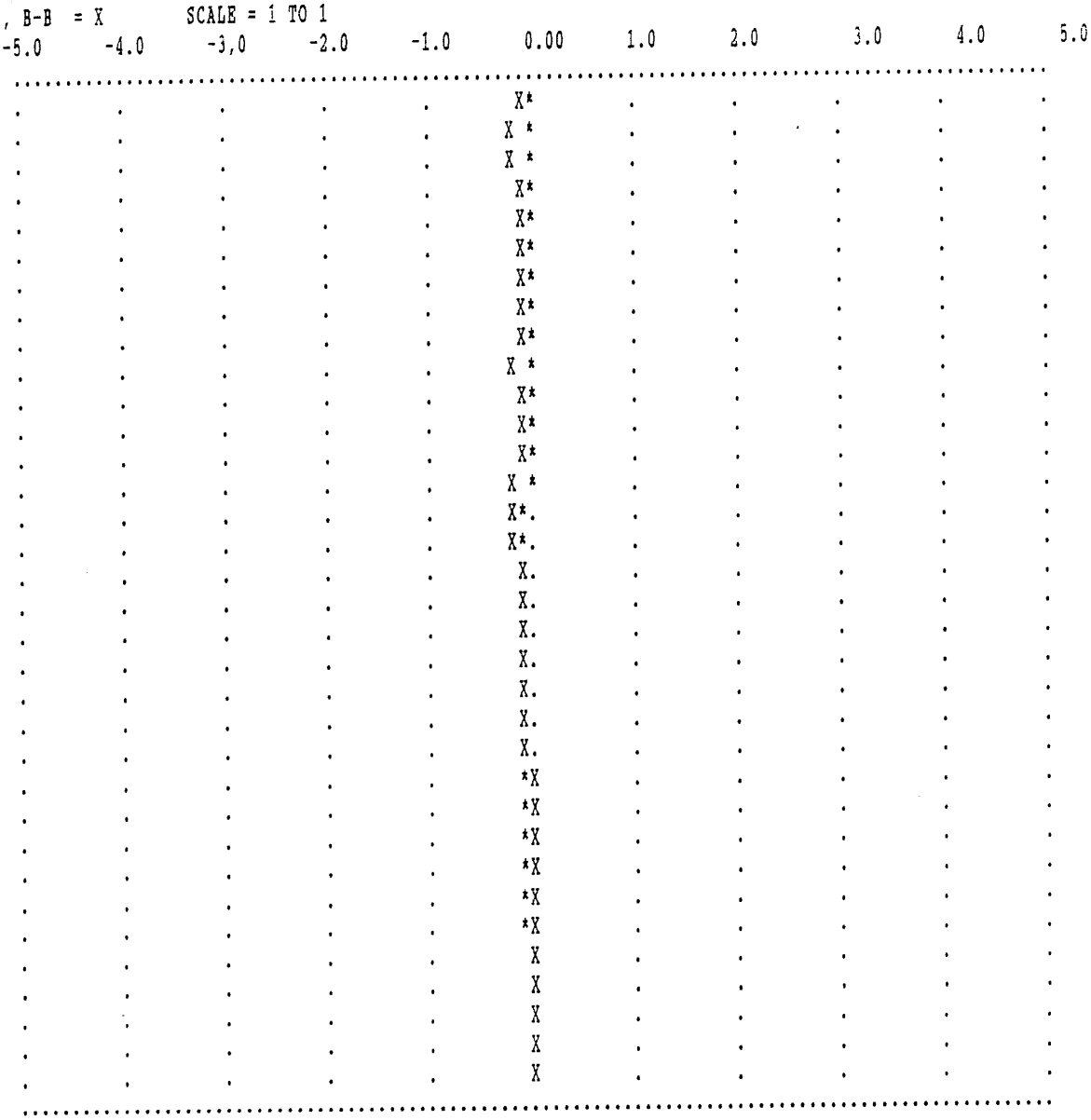
1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE MAY 8, 1987
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 89 B-B MEAN BIAS = 11 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	.002	-.056
1040.20	-.005	-.134
1038.20	.002	-.167
1036.20	.000	-.176
1034.20	-.006	-.165
1032.20	-.007	-.148
1030.20	-.004	-.146
1028.20	-.011	-.146
1026.20	-.010	-.140
1024.20	-.011	-.137
1022.20	-.009	-.135
1020.20	-.005	-.132
1018.20	.000	-.126
1016.20	.005	-.126
1014.20	.011	-.128
1012.20	.017	-.134
1010.20	.025	-.137
1008.20	.022	-.148
1006.20	.023	-.152
1004.20	.022	-.157
1002.20	.030	-.147
1000.20	.035	-.139
998.20	.035	-.144
996.20	.040	-.143
994.20	.044	-.142
992.20	.049	-.145
990.20	.049	-.151
988.20	.022	-.169
986.20	-.067	-.154
984.20	-.122	-.154
982.20	-.128	-.155
980.20	-.124	-.143
978.20	-.120	-.140
976.20	-.116	-.121
974.20	-.110	-.109
972.20	-.103	-.101
970.20	-.101	-.100
968.20	-.100	-.090
966.20	-.100	-.082
964.20	-.099	-.077
962.20	-.100	-.068
960.20	-.099	-.058
958.20	-.095	-.055
956.20	-.090	-.064
954.20	-.088	-.065
952.20	-.083	-.055
950.20	-.073	-.046
948.20	-.068	-.041
946.20	-.068	-.031
944.20	-.064	-.024
942.20	-.061	-.012
940.20	-.059	-.001

938.20	-.059	.010
936.20	-.062	.018
934.20	-.064	.025
932.20	-.052	.014
930.20	-.054	.025
928.20	-.047	.002
926.20	-.040	.005
924.20	-.042	.008
922.20	-.042	-.015
920.20	-.029	-.022
918.20	-.026	-.011
916.20	-.019	.002
914.20	-.012	.002
912.20	-.007	-.006
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .01
B-B DEFLECTION = .02
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



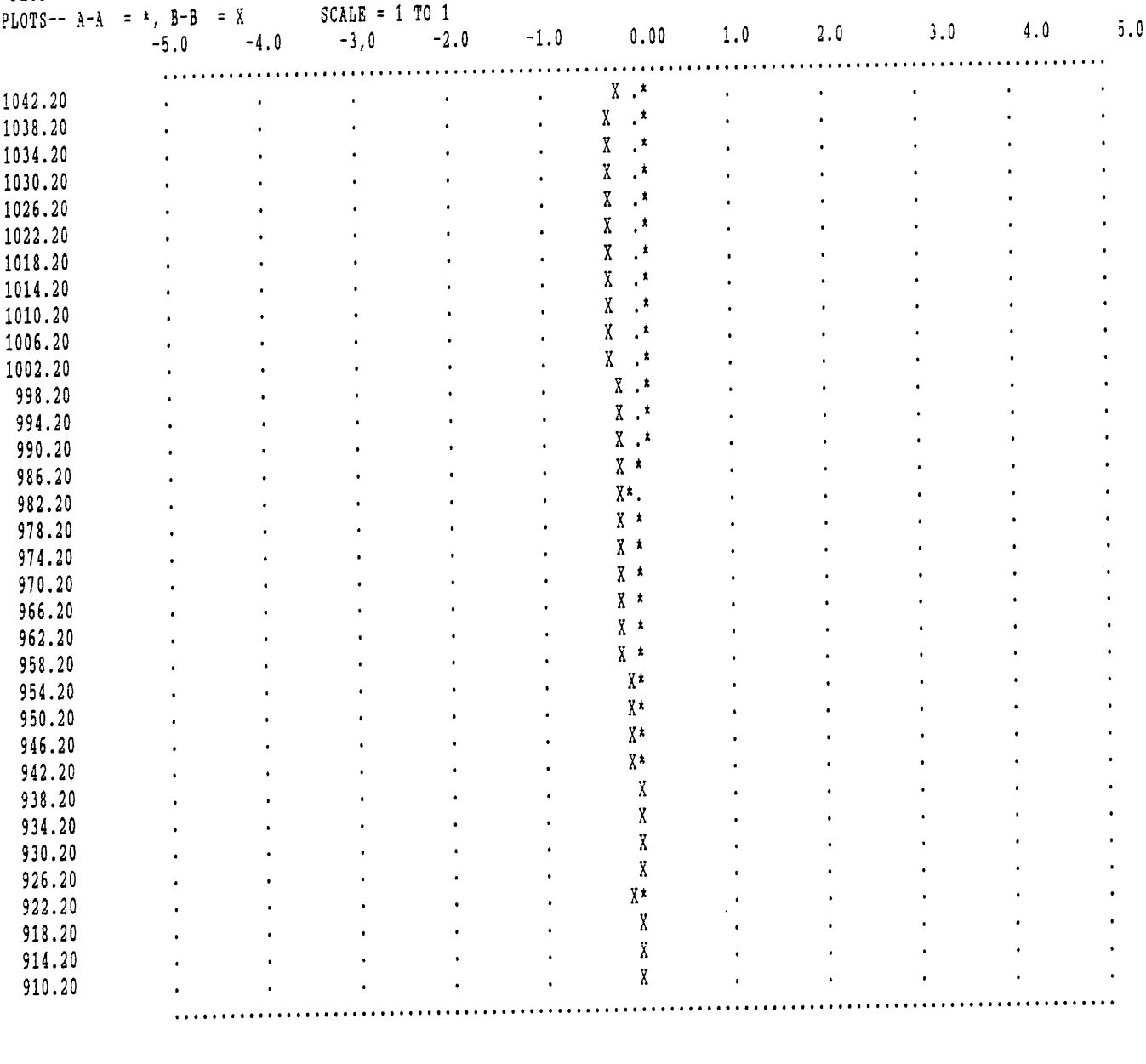
1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE JUNE 22, 1987
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 62 B-B MEAN BIAS = 74 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	.149	-.232
1040.20	.139	-.280
1038.20	.142	-.299
1036.20	.137	-.313
1034.20	.125	-.312
1032.20	.122	-.293
1030.20	.125	-.297
1028.20	.116	-.300
1026.20	.116	-.292
1024.20	.114	-.292
1022.20	.091	-.271
1020.20	.095	-.263
1018.20	.100	-.253
1016.20	.104	-.250
1014.20	.109	-.250
1012.20	.118	-.250
1010.20	.125	-.254
1008.20	.122	-.264
1006.20	.122	-.270
1004.20	.121	-.272
1002.20	.128	-.259
1000.20	.128	-.244
998.20	.126	-.246
996.20	.130	-.233
994.20	.131	-.225
992.20	.134	-.221
990.20	.136	-.223
988.20	.103	-.239
986.20	.008	-.236
984.20	-.047	-.234
982.20	-.053	-.234
980.20	-.050	-.209
978.20	-.049	-.210
976.20	-.048	-.196
974.20	-.046	-.187
972.20	-.041	-.182
970.20	-.041	-.182
968.20	-.043	-.172
966.20	-.042	-.163
964.20	-.044	-.164
962.20	-.050	-.161
960.20	-.050	-.151
958.20	-.049	-.150
956.20	-.043	-.143
954.20	-.040	-.145
952.20	-.032	-.141
950.20	-.019	-.133
948.20	-.014	-.126
946.20	-.013	-.106
944.20	-.008	-.099
942.20	-.005	-.074
940.20	-.005	-.053

938.20	-.013	-.035
936.20	-.026	-.023
934.20	-.035	-.020
932.20	-.030	-.033
930.20	-.032	-.022
928.20	-.029	-.046
926.20	-.023	-.040
924.20	-.028	-.029
922.20	-.029	-.059
920.20	-.010	-.053
918.20	-.011	-.047
916.20	-.004	-.032
914.20	-.001	-.015
912.20	-.001	-.013
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .16
B-B DEFLECTION = -.18
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE OCT. 6, 1987
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 3 B-B MEAN BIAS = -20 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.184	-.143
1040.20	-.206	-.178
1038.20	-.206	-.193
1036.20	-.208	-.200
1034.20	-.216	-.196
1032.20	-.218	-.186
1030.20	-.214	-.198
1028.20	-.224	-.197
1026.20	-.221	-.193
1024.20	-.219	-.192
1022.20	-.215	-.185
1020.20	-.202	-.184
1018.20	-.192	-.178
1016.20	-.184	-.172
1014.20	-.176	-.174
1012.20	-.163	-.178
1010.20	-.155	-.177
1008.20	-.157	-.182
1006.20	-.154	-.181
1004.20	-.153	-.175
1002.20	-.143	-.163
1000.20	-.135	-.147
998.20	-.133	-.149
996.20	-.123	-.139
994.20	-.115	-.131
992.20	-.107	-.119
990.20	-.100	-.113
988.20	-.127	-.125
986.20	-.218	-.115
984.20	-.271	-.114
982.20	-.275	-.109
980.20	-.267	-.085
978.20	-.262	-.091
976.20	-.257	-.079
974.20	-.251	-.073
972.20	-.244	-.077
970.20	-.238	-.083
968.20	-.233	-.076
966.20	-.227	-.071
964.20	-.223	-.074
962.20	-.220	-.079
960.20	-.213	-.068
958.20	-.203	-.068
956.20	-.193	-.072
954.20	-.184	-.076
952.20	-.173	-.072
950.20	-.156	-.068
948.20	-.145	-.062
946.20	-.138	-.041
944.20	-.130	-.030
942.20	-.123	-.007
940.20	-.117	.016

938.20	-.118	.035
936.20	-.122	.037
934.20	-.124	.029
932.20	-.110	.010
930.20	-.107	.019
928.20	-.095	-.005
926.20	-.083	-.014
924.20	-.081	-.022
922.20	-.074	-.052
920.20	-.055	-.049
918.20	-.049	-.042
916.20	-.034	-.028
914.20	-.020	-.016
912.20	-.010	-.017
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.16
B-B DEFLECTION = -.11
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
               ..........................................................................................
1042.20        .        .        .        .        .       *X.      .        .        .        .        .
1038.20        .        .        .        .        .       X .      .        .        .        .        .
1034.20        .        .        .        .        .       X .      .        .        .        .        .
1030.20        .        .        .        .        .       X .      .        .        .        .        .
1026.20        .        .        .        .        .       X .      .        .        .        .        .
1022.20        .        .        .        .        .       X .      .        .        .        .        .
1018.20        .        .        .        .        .       X .      .        .        .        .        .
1014.20        .        .        .        .        .       X .      .        .        .        .        .
1010.20        .        .        .        .        .       X .      .        .        .        .        .
1006.20        .        .        .        .        .       X .      .        .        .        .        .
1002.20        .        .        .        .        .       X*.      .        .        .        .        .
 998.20        .        .        .        .        .        X.      .        .        .        .        .
 994.20        .        .        .        .        .        X.      .        .        .        .        .
 990.20        .        .        .        .        .        X.      .        .        .        .        .
 986.20        .        .        .        .        .       *X.      .        .        .        .        .
 982.20        .        .        .        .        .       * X.     .        .        .        .        .
 978.20        .        .        .        .        .       * X.     .        .        .        .        .
 974.20        .        .        .        .        .       * X.     .        .        .        .        .
 970.20        .        .        .        .        .       *X.      .        .        .        .        .
 966.20        .        .        .        .        .       *X.      .        .        .        .        .
 962.20        .        .        .        .        .       *X.      .        .        .        .        .
 958.20        .        .        .        .        .       *X.      .        .        .        .        .
 954.20        .        .        .        .        .       *X.      .        .        .        .        .
 950.20        .        .        .        .        .       *X.      .        .        .        .        .
 946.20        .        .        .        .        .        *X      .        .        .        .        .
 942.20        .        .        .        .        .        *X      .        .        .        .        .
 938.20        .        .        .        .        .        *X      .        .        .        .        .
 934.20        .        .        .        .        .        *X      .        .        .        .        .
 930.20        .        .        .        .        .        *X      .        .        .        .        .
 926.20        .        .        .        .        .        *X      .        .        .        .        .
 922.20        .        .        .        .        .        X.      .        .        .        .        .
 918.20        .        .        .        .        .         X      .        .        .        .        .
 914.20        .        .        .        .        .         X      .        .        .        .        .
 910.20        .        .        .        .        .         X      .        .        .        .        .
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1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
DATE NOV. 18, 1987
BOTTOM ELEV. 910.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1
A-A MEAN BIAS = 5 B-B MEAN BIAS = -22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.20	-.164	.015
1040.20	-.179	-.076
1038.20	-.177	-.112
1036.20	-.182	-.142
1034.20	-.191	-.137
1032.20	-.193	-.127
1030.20	-.188	-.140
1028.20	-.198	-.149
1026.20	-.196	-.152
1024.20	-.196	-.155
1022.20	-.191	-.148
1020.20	-.181	-.145
1018.20	-.170	-.139
1016.20	-.161	-.134
1014.20	-.154	-.134
1012.20	-.141	-.136
1010.20	-.133	-.137
1008.20	-.136	-.140
1006.20	-.132	-.142
1004.20	-.133	-.136
1002.20	-.124	-.121
1000.20	-.116	-.104
998.20	-.115	-.106
996.20	-.104	-.097
994.20	-.098	-.090
992.20	-.091	-.095
990.20	-.083	-.096
988.20	-.109	-.115
986.20	-.201	-.110
984.20	-.258	-.109
982.20	-.263	-.104
980.20	-.257	-.080
978.20	-.253	-.082
976.20	-.248	-.069
974.20	-.241	-.063
972.20	-.233	-.064
970.20	-.227	-.067
968.20	-.221	-.056
966.20	-.216	-.056
964.20	-.211	-.055
962.20	-.207	-.056
960.20	-.200	-.046
958.20	-.191	-.046
956.20	-.181	-.049
954.20	-.173	-.078
952.20	-.166	-.074
950.20	-.154	-.071
948.20	-.143	-.066
946.20	-.138	-.052
944.20	-.133	-.046
942.20	-.130	-.038
940.20	-.124	-.026

938.20	-.119	-.016
936.20	-.116	-.014
934.20	-.114	-.017
932.20	-.095	-.026
930.20	-.091	-.012
928.20	-.080	-.030
926.20	-.070	-.040
924.20	-.067	-.039
922.20	-.061	-.058
920.20	-.051	-.058
918.20	-.044	-.050
916.20	-.034	-.037
914.20	-.018	-.023
912.20	-.010	-.017
910.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.15
B-B DEFLECTION = .11
TOP ELEVATION OF TUBE = 1044.20

1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-1

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.20         .        .        .        .        .       * X      .        .        .        .        .
1038.20         .        .        .        .        .       *X.      .        .        .        .        .
1034.20         .        .        .        .        .       *X.      .        .        .        .        .
1030.20         .        .        .        .        .       *X.      .        .        .        .        .
1026.20         .        .        .        .        .       X .      .        .        .        .        .
1022.20         .        .        .        .        .       *X.      .        .        .        .        .
1018.20         .        .        .        .        .       *X.      .        .        .        .        .
1014.20         .        .        .        .        .       *X.      .        .        .        .        .
1010.20         .        .        .        .        .        X.      .        .        .        .        .
1006.20         .        .        .        .        .        X.      .        .        .        .        .
1002.20         .        .        .        .        .        X.      .        .        .        .        .
 998.20         .        .        .        .        .        X.      .        .        .        .        .
 994.20         .        .        .        .        .        X.      .        .        .        .        .
 990.20         .        .        .        .        .        X.      .        .        .        .        .
 986.20         .        .        .        .        .       *X.      .        .        .        .        .
 982.20         .        .        .        .        .       * X.     .        .        .        .        .
 978.20         .        .        .        .        .       * X.     .        .        .        .        .
 974.20         .        .        .        .        .       *X.      .        .        .        .        .
 970.20         .        .        .        .        .       *X.      .        .        .        .        .
 966.20         .        .        .        .        .       *X.      .        .        .        .        .
 962.20         .        .        .        .        .       *X.      .        .        .        .        .
 958.20         .        .        .        .        .       * X      .        .        .        .        .
 954.20         .        .        .        .        .       *X.      .        .        .        .        .
 950.20         .        .        .        .        .       *X.      .        .        .        .        .
 946.20         .        .        .        .        .        X.      .        .        .        .        .
 942.20         .        .        .        .        .        *X      .        .        .        .        .
 938.20         .        .        .        .        .        *X      .        .        .        .        .
 934.20         .        .        .        .        .        *X      .        .        .        .        .
 930.20         .        .        .        .        .        *X      .        .        .        .        .
 926.20         .        .        .        .        .        *X      .        .        .        .        .
 922.20         .        .        .        .        .        X.      .        .        .        .        .
 918.20         .        .        .        .        .        X*      .        .        .        .        .
 914.20         .        .        .        .        .         X      .        .        .        .        .
 910.20         .        .        .        .        .         X      .        .        .        .        .
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1**** 86-0123 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE JAN. 23, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 112 B-B MEAN BIAS = 26 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

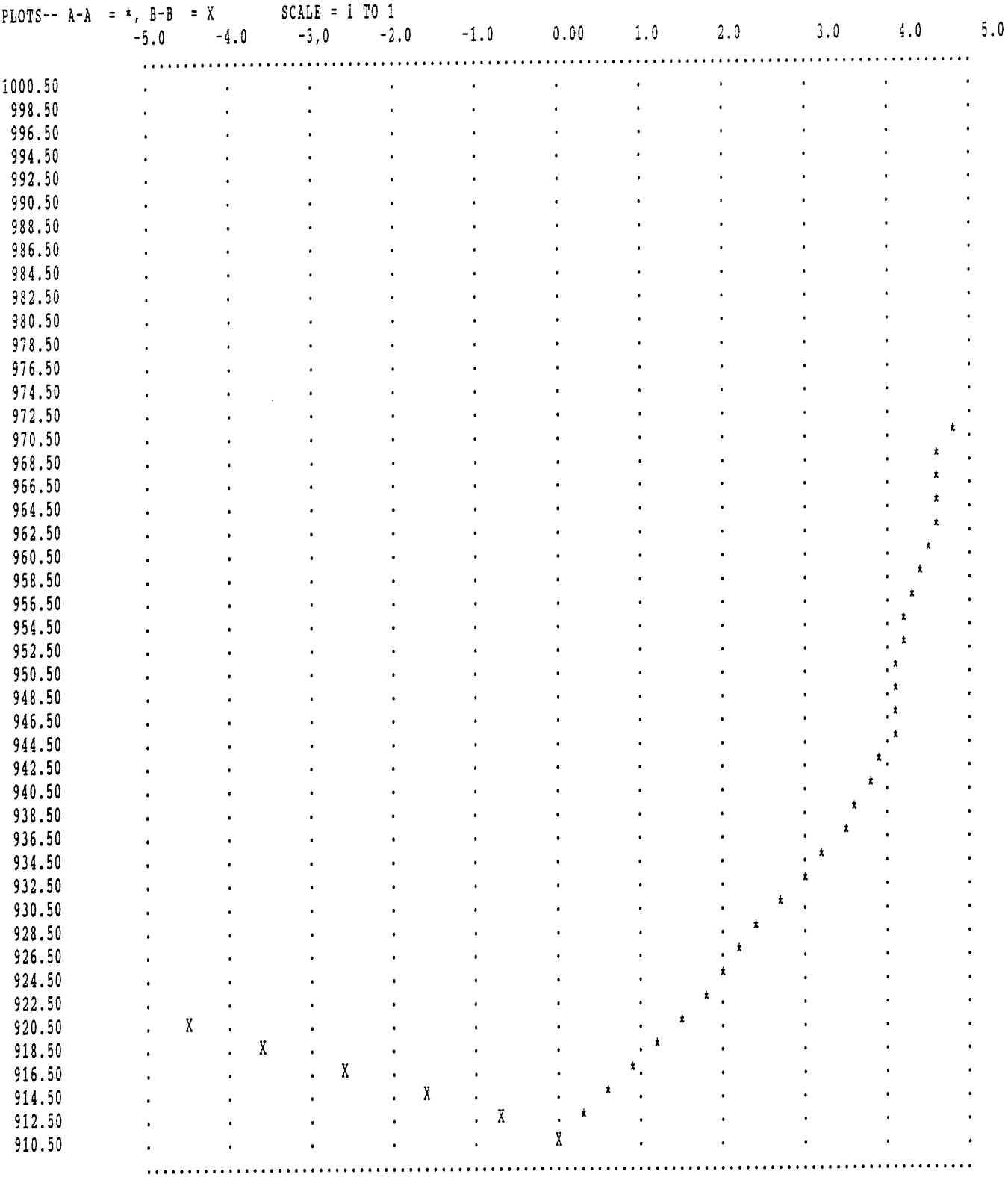
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	6.535	-16.976
998.50	6.624	-17.312
996.50	6.811	-17.636
994.50	7.127	-17.808
992.50	7.427	-17.764
990.50	7.591	-17.737
988.50	7.589	-17.873
986.50	7.445	-18.115
984.50	7.244	-18.342
982.50	7.018	-18.505
980.50	6.712	-18.614
978.50	6.326	-18.663
976.50	5.907	-18.631
974.50	5.484	-18.494
972.50	5.079	-18.370
970.50	4.750	-18.212
968.50	4.637	-18.050
966.50	4.644	-17.857
964.50	4.622	-17.542
962.50	4.558	-17.101
960.50	4.484	-16.594
958.50	4.390	-15.994
956.50	4.286	-15.323
954.50	4.210	-14.611
952.50	4.153	-13.825
950.50	4.142	-13.046
948.50	4.139	-12.281
946.50	4.127	-11.527
944.50	4.066	-10.792
942.50	3.940	-10.091
940.50	3.796	-9.481
938.50	3.648	-8.969
936.50	3.465	-8.611
934.50	3.220	-8.311
932.50	2.961	-8.014
930.50	2.686	-7.690
928.50	2.427	-7.265
926.50	2.218	-6.722
924.50	2.023	-6.052
922.50	1.796	-5.299
920.50	1.505	-4.464
918.50	1.218	-3.566
916.50	.947	-2.611
914.50	.650	-1.631
912.50	.281	-.745
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = 6.45
B-B DEFLECTION = -16.64
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE APR. 1, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 67 B-B MEAN BIAS = 14 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

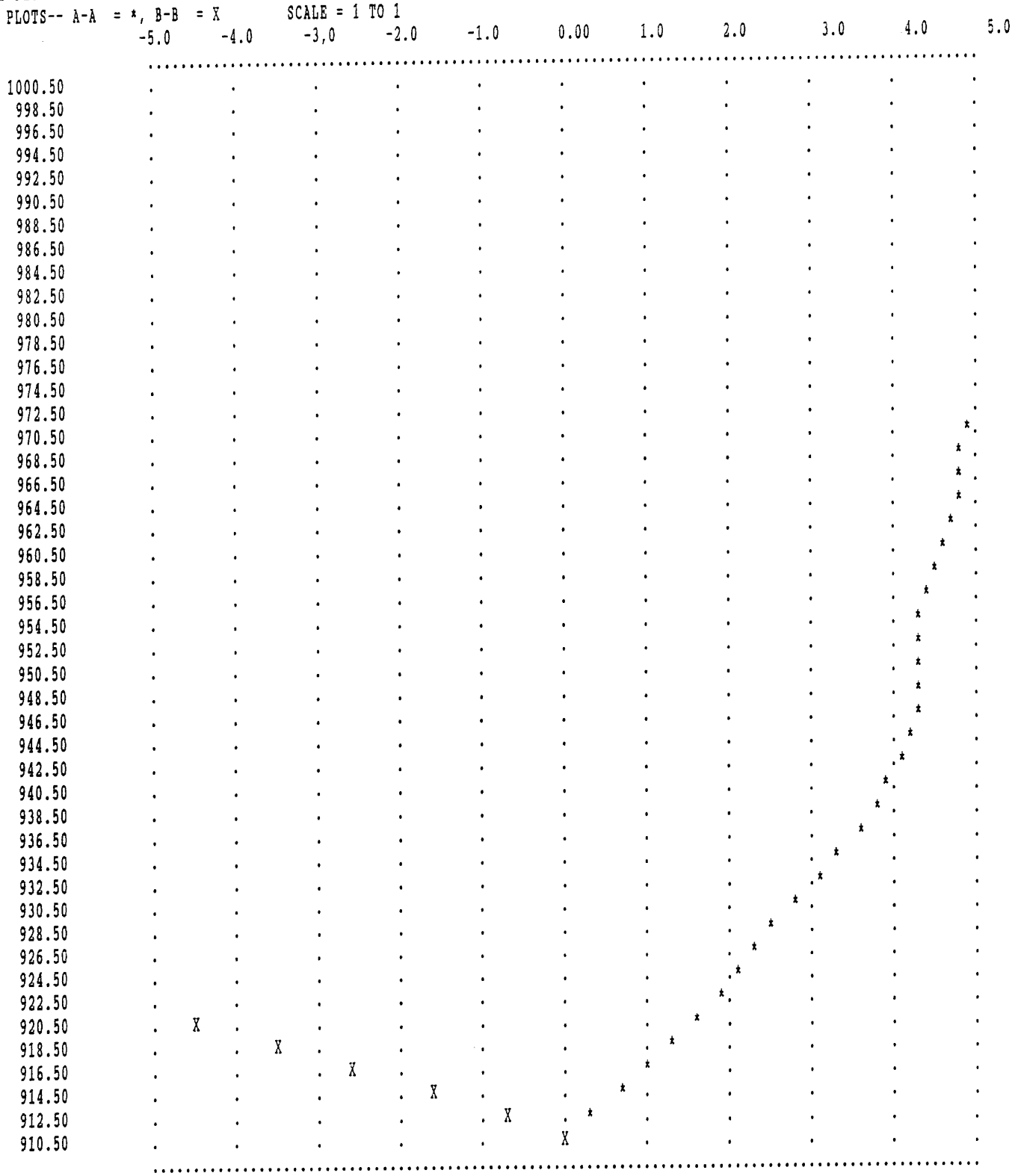
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	6.573	-16.555
998.50	6.755	-17.053
996.50	6.956	-17.411
994.50	7.274	-17.588
992.50	7.572	-17.546
990.50	7.735	-17.519
988.50	7.735	-17.660
986.50	7.586	-17.914
984.50	7.385	-18.152
982.50	7.157	-18.316
980.50	6.848	-18.422
978.50	6.461	-18.476
976.50	6.041	-18.458
974.50	5.618	-18.320
972.50	5.211	-18.189
970.50	4.882	-18.056
968.50	4.771	-17.914
966.50	4.778	-17.725
964.50	4.755	-17.419
962.50	4.691	-16.991
960.50	4.617	-16.476
958.50	4.520	-15.883
956.50	4.421	-15.215
954.50	4.345	-14.518
952.50	4.289	-13.742
950.50	4.282	-12.969
948.50	4.278	-12.206
946.50	4.263	-11.470
944.50	4.195	-10.746
942.50	4.067	-10.058
940.50	3.917	-9.470
938.50	3.768	-8.967
936.50	3.584	-8.617
934.50	3.338	-8.329
932.50	3.074	-8.034
930.50	2.800	-7.697
928.50	2.540	-7.263
926.50	2.324	-6.710
924.50	2.121	-6.049
922.50	1.882	-5.285
920.50	1.581	-4.450
918.50	1.286	-3.550
916.50	1.004	-2.590
914.50	.686	-1.612
912.50	.301	-.736
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = 6.39
B-B DEFLECTION = -16.06
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE MAY 13, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 77 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	-.046	-.098
998.50	-.113	-.076
996.50	-.110	-.065
994.50	-.107	-.067
992.50	-.107	-.059
990.50	-.106	-.064
988.50	-.104	-.066
986.50	-.103	-.058
984.50	-.100	-.050
982.50	-.096	-.056
980.50	-.093	-.059
978.50	-.090	-.064
976.50	-.089	-.073
974.50	-.088	-.082
972.50	-.087	-.098
970.50	-.085	-.091
968.50	-.084	-.086
966.50	-.083	-.085
964.50	-.082	-.077
962.50	-.082	-.067
960.50	-.084	-.075
958.50	-.080	-.071
956.50	-.081	-.059
954.50	-.083	-.044
952.50	-.082	-.029
950.50	-.079	-.022
948.50	-.076	-.026
946.50	-.074	-.018
944.50	-.074	-.022
942.50	-.072	-.019
940.50	-.073	-.023
938.50	-.070	-.013
936.50	-.074	-.014
934.50	-.077	-.020
932.50	-.077	-.018
930.50	-.078	-.031
928.50	-.075	-.029
926.50	-.069	-.025
924.50	-.065	-.023
922.50	-.060	-.020
920.50	-.056	-.016
918.50	-.050	-.018
916.50	-.041	-.014
914.50	-.028	-.001
912.50	-.012	-.006
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .02
B-B DEFLECTION = -.12
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1000.50         .        .        .        .        .        X*       .        .        .        .        .
 998.50         .        .        .        .        .        X.       .        .        .        .        .
 996.50         .        .        .        .        .        X.       .        .        .        .        .
 994.50         .        .        .        .        .        X.       .        .        .        .        .
 992.50         .        .        .        .        .        X.       .        .        .        .        .
 990.50         .        .        .        .        .        X.       .        .        .        .        .
 988.50         .        .        .        .        .        X.       .        .        .        .        .
 986.50         .        .        .        .        .        X.       .        .        .        .        .
 984.50         .        .        .        .        .        X.       .        .        .        .        .
 982.50         .        .        .        .        .        X.       .        .        .        .        .
 980.50         .        .        .        .        .        X.       .        .        .        .        .
 978.50         .        .        .        .        .        X.       .        .        .        .        .
 976.50         .        .        .        .        .        X.       .        .        .        .        .
 974.50         .        .        .        .        .        X.       .        .        .        .        .
 972.50         .        .        .        .        .        X.       .        .        .        .        .
 970.50         .        .        .        .        .        X.       .        .        .        .        .
 968.50         .        .        .        .        .        X.       .        .        .        .        .
 966.50         .        .        .        .        .        X.       .        .        .        .        .
 964.50         .        .        .        .        .        X.       .        .        .        .        .
 962.50         .        .        .        .        .        X.       .        .        .        .        .
 960.50         .        .        .        .        .        X.       .        .        .        .        .
 958.50         .        .        .        .        .        X.       .        .        .        .        .
 956.50         .        .        .        .        .        X.       .        .        .        .        .
 954.50         .        .        .        .        .        *X       .        .        .        .        .
 952.50         .        .        .        .        .        *X       .        .        .        .        .
 950.50         .        .        .        .        .        *X       .        .        .        .        .
 948.50         .        .        .        .        .        *X       .        .        .        .        .
 946.50         .        .        .        .        .        *X       .        .        .        .        .
 944.50         .        .        .        .        .        *X       .        .        .        .        .
 942.50         .        .        .        .        .        *X       .        .        .        .        .
 940.50         .        .        .        .        .        *X       .        .        .        .        .
 938.50         .        .        .        .        .        *X       .        .        .        .        .
 936.50         .        .        .        .        .        *X       .        .        .        .        .
 934.50         .        .        .        .        .        *X       .        .        .        .        .
 932.50         .        .        .        .        .        *X       .        .        .        .        .
 930.50         .        .        .        .        .        *X       .        .        .        .        .
 928.50         .        .        .        .        .        *X       .        .        .        .        .
 926.50         .        .        .        .        .        *X       .        .        .        .        .
 924.50         .        .        .        .        .        *X       .        .        .        .        .
 922.50         .        .        .        .        .        *X       .        .        .        .        .
 920.50         .        .        .        .        .        *X       .        .        .        .        .
 918.50         .        .        .        .        .         X       .        .        .        .        .
 916.50         .        .        .        .        .         X       .        .        .        .        .
 914.50         .        .        .        .        .         X       .        .        .        .        .
 912.50         .        .        .        .        .         X       .        .        .        .        .
 910.50         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE JUNE 16, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 84 B-B MEAN BIAS = 32 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

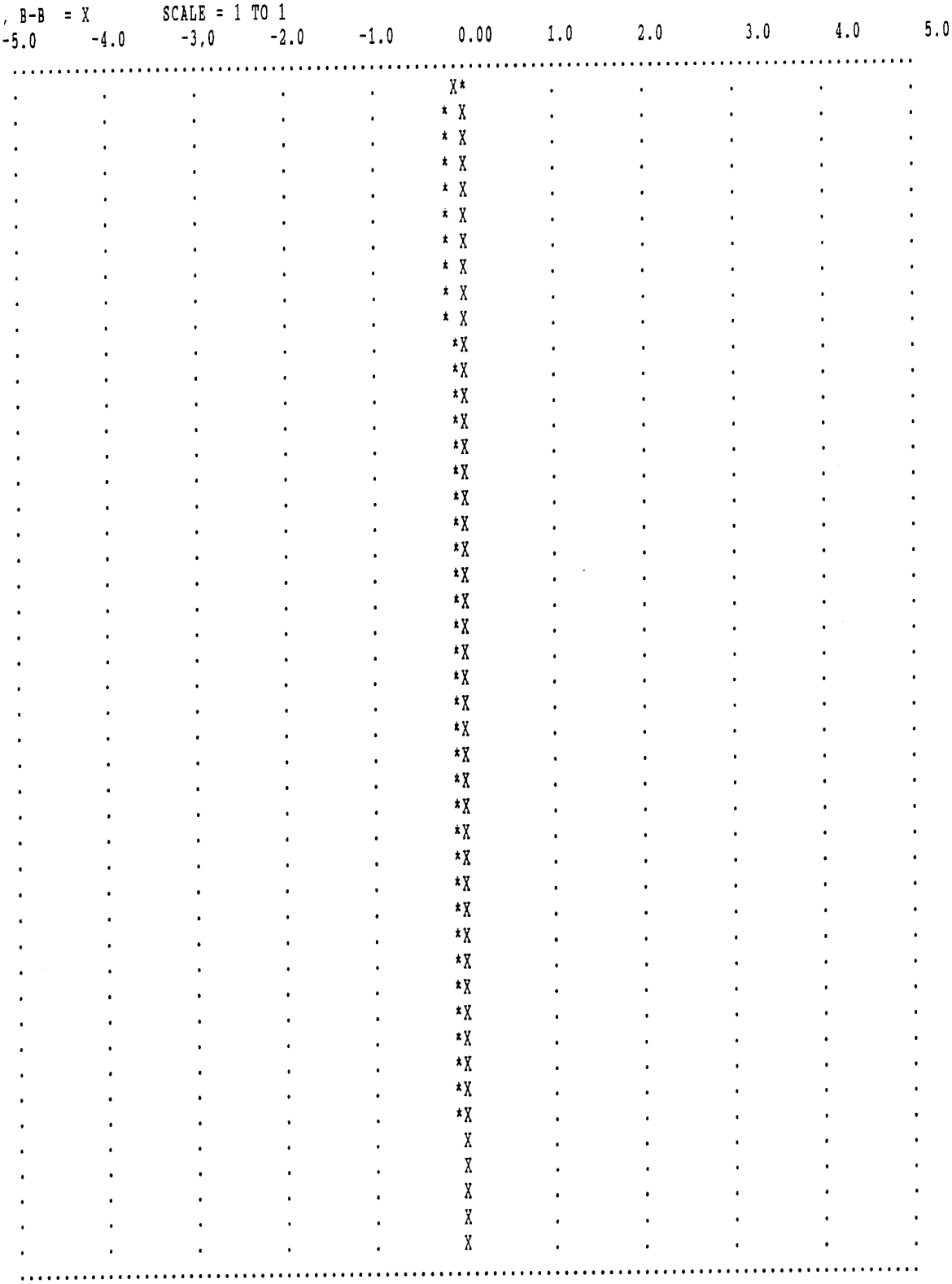
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	-.040	-.058
998.50	-.166	-.035
996.50	-.164	-.029
994.50	-.157	-.038
992.50	-.161	-.044
990.50	-.158	-.042
988.50	-.157	-.046
986.50	-.160	-.031
984.50	-.157	-.032
982.50	-.151	-.029
980.50	-.149	-.026
978.50	-.148	-.022
976.50	-.148	-.026
974.50	-.145	-.024
972.50	-.141	-.032
970.50	-.137	-.019
968.50	-.136	-.019
966.50	-.133	-.021
964.50	-.130	-.020
962.50	-.128	-.017
960.50	-.126	-.018
958.50	-.121	-.016
956.50	-.118	-.010
954.50	-.116	-.004
952.50	-.114	.011
950.50	-.107	.019
948.50	-.102	.017
946.50	-.100	.026
944.50	-.100	.034
942.50	-.097	.029
940.50	-.094	.028
938.50	-.091	.032
936.50	-.091	.032
934.50	-.090	.040
932.50	-.089	.034
930.50	-.085	.027
928.50	-.078	.011
926.50	-.071	.013
924.50	-.065	.010
922.50	-.060	.011
920.50	-.055	.011
918.50	-.046	.014
916.50	-.037	.012
914.50	-.023	.010
912.50	-.008	.001
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .09
B-B DEFLECTION = -.08
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE JULY 16, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 70 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.098	-.155
998.50	.020	-.061
996.50	.025	-.053
994.50	.033	-.055
992.50	.024	-.062
990.50	.023	-.061
988.50	.020	-.071
986.50	.013	-.058
984.50	.014	-.062
982.50	.017	-.070
980.50	.014	-.070
978.50	.009	-.073
976.50	.001	-.083
974.50	-.002	-.094
972.50	-.004	-.092
970.50	-.004	-.076
968.50	-.004	-.071
966.50	-.002	-.077
964.50	-.004	-.071
962.50	-.004	-.056
960.50	-.006	-.058
958.50	-.004	-.050
956.50	-.004	-.049
954.50	-.006	-.050
952.50	-.010	-.039
950.50	-.006	-.036
948.50	-.006	-.032
946.50	-.007	-.017
944.50	-.010	-.010
942.50	-.008	-.002
940.50	-.010	.005
938.50	-.008	.001
936.50	-.017	-.009
934.50	-.022	-.010
932.50	-.026	-.015
930.50	-.030	-.029
928.50	-.028	-.032
926.50	-.026	-.029
924.50	-.026	-.014
922.50	-.025	-.012
920.50	-.024	-.010
918.50	-.022	-.005
916.50	-.018	.001
914.50	-.010	.002
912.50	.002	-.003
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .18
B-B DEFLECTION = -.25
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0    -4.0    -3,0    -2.0    -1.0    0.00    1.0    2.0    3.0    4.0    5.0
                ..........................................................................................
1000.50         .       .       .       .       .       X .*    .      .      .      .      .
 998.50         .       .       .       .       .       X*      .      .      .      .      .
 996.50         .       .       .       .       .       X*      .      .      .      .      .
 994.50         .       .       .       .       .       X*      .      .      .      .      .
 992.50         .       .       .       .       .       X*      .      .      .      .      .
 990.50         .       .       .       .       .       X*      .      .      .      .      .
 988.50         .       .       .       .       .       X*      .      .      .      .      .
 986.50         .       .       .       .       .       X*      .      .      .      .      .
 984.50         .       .       .       .       .       X*      .      .      .      .      .
 982.50         .       .       .       .       .       X*      .      .      .      .      .
 980.50         .       .       .       .       .       X*      .      .      .      .      .
 978.50         .       .       .       .       .       X*      .      .      .      .      .
 976.50         .       .       .       .       .       X*      .      .      .      .      .
 974.50         .       .       .       .       .       X*      .      .      .      .      .
 972.50         .       .       .       .       .       X*      .      .      .      .      .
 970.50         .       .       .       .       .       X*      .      .      .      .      .
 968.50         .       .       .       .       .       X*      .      .      .      .      .
 966.50         .       .       .       .       .       X*      .      .      .      .      .
 964.50         .       .       .       .       .       X*      .      .      .      .      .
 962.50         .       .       .       .       .       X*      .      .      .      .      .
 960.50         .       .       .       .       .       X*      .      .      .      .      .
 958.50         .       .       .       .       .       X*      .      .      .      .      .
 956.50         .       .       .       .       .        X      .      .      .      .      .
 954.50         .       .       .       .       .        X      .      .      .      .      .
 952.50         .       .       .       .       .        X      .      .      .      .      .
 950.50         .       .       .       .       .        X      .      .      .      .      .
 948.50         .       .       .       .       .        X      .      .      .      .      .
 946.50         .       .       .       .       .        X      .      .      .      .      .
 944.50         .       .       .       .       .        X      .      .      .      .      .
 942.50         .       .       .       .       .        X      .      .      .      .      .
 940.50         .       .       .       .       .        X      .      .      .      .      .
 938.50         .       .       .       .       .        X      .      .      .      .      .
 936.50         .       .       .       .       .        X      .      .      .      .      .
 934.50         .       .       .       .       .        X      .      .      .      .      .
 932.50         .       .       .       .       .        X      .      .      .      .      .
 930.50         .       .       .       .       .        X      .      .      .      .      .
 928.50         .       .       .       .       .        X      .      .      .      .      .
 926.50         .       .       .       .       .        X      .      .      .      .      .
 924.50         .       .       .       .       .        X      .      .      .      .      .
 922.50         .       .       .       .       .        X      .      .      .      .      .
 920.50         .       .       .       .       .        X      .      .      .      .      .
 918.50         .       .       .       .       .        X      .      .      .      .      .
 916.50         .       .       .       .       .        X      .      .      .      .      .
 914.50         .       .       .       .       .        X      .      .      .      .      .
 912.50         .       .       .       .       .        X      .      .      .      .      .
 910.50         .       .       .       .       .        X      .      .      .      .      .
                ..........................................................................................
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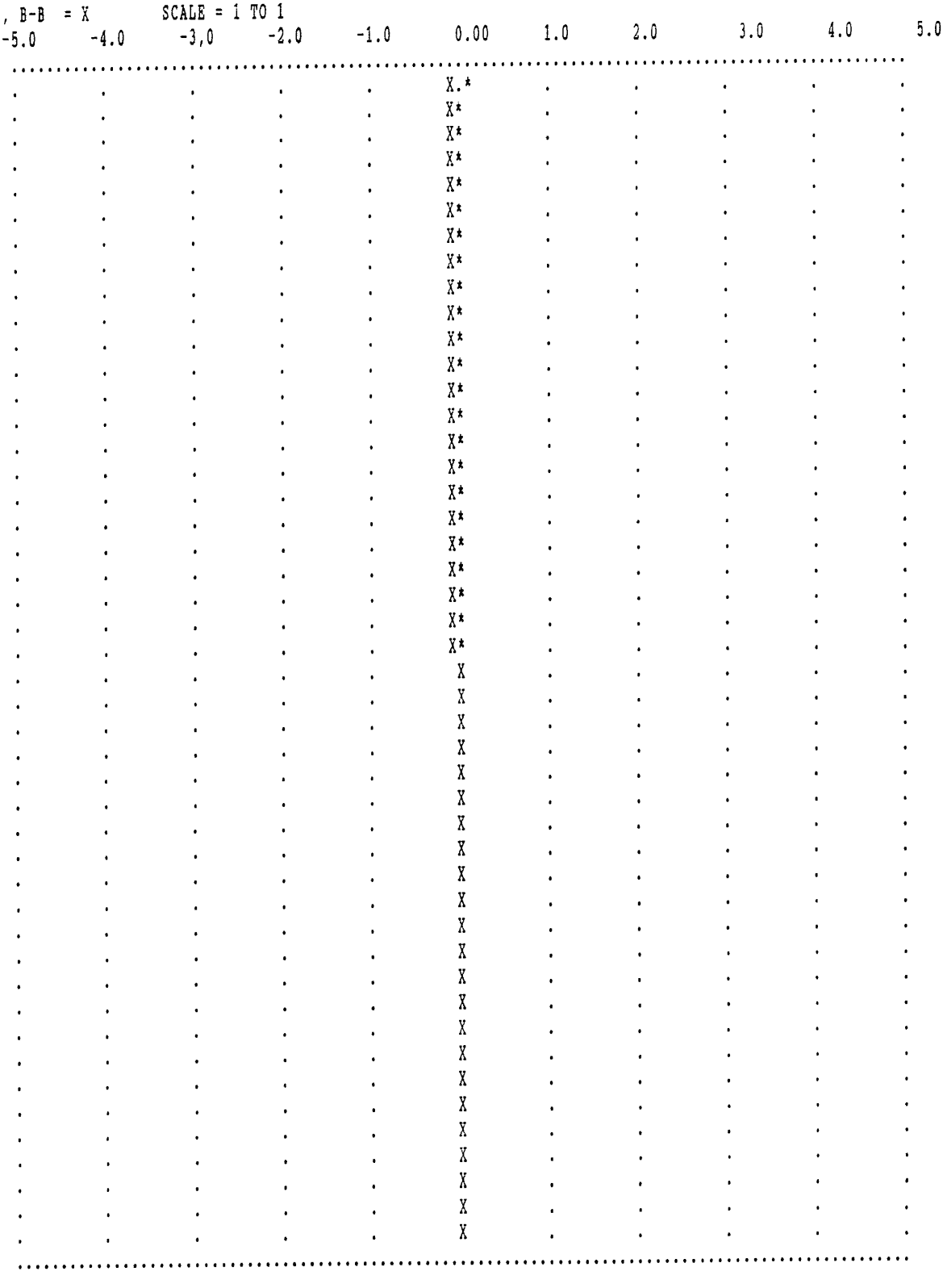
1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE AUG. 19, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 89 B-B MEAN BIAS = 32 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.061	-.124
998.50	-.010	-.086
996.50	-.003	-.080
994.50	.005	-.081
992.50	-.002	-.072
990.50	-.002	-.071
988.50	-.004	-.074
986.50	-.013	-.058
984.50	-.010	-.063
982.50	-.005	-.073
980.50	-.007	-.067
978.50	-.013	-.071
976.50	-.022	-.081
974.50	-.025	-.080
972.50	-.026	-.090
970.50	-.026	-.079
968.50	-.028	-.069
966.50	-.027	-.071
964.50	-.028	-.073
962.50	-.027	-.064
960.50	-.031	-.067
958.50	-.029	-.063
956.50	-.026	-.055
954.50	-.031	-.046
952.50	-.035	-.034
950.50	-.029	-.031
948.50	-.028	-.022
946.50	-.029	-.010
944.50	-.035	.001
942.50	-.033	.001
940.50	-.034	.006
938.50	-.031	.002
936.50	-.038	.001
934.50	-.042	.001
932.50	-.046	.000
930.50	-.047	-.012
928.50	-.046	-.015
926.50	-.042	-.014
924.50	-.040	-.001
922.50	-.038	.004
920.50	-.037	.010
918.50	-.031	.012
916.50	-.023	.011
914.50	-.013	.011
912.50	-.001	-.003
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .13
B-B DEFLECTION = -.16
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 8 -6-0922 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
DATE SEP. 22, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 90 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	-.004	-.147
998.50	-.080	-.104
996.50	-.068	-.106
994.50	-.061	-.117
992.50	-.067	-.121
990.50	-.065	-.118
988.50	-.065	-.116
986.50	-.072	-.103
984.50	-.068	-.097
982.50	-.062	-.097
980.50	-.062	-.087
978.50	-.064	-.084
976.50	-.071	-.099
974.50	-.072	-.095
972.50	-.070	-.101
970.50	-.072	-.094
968.50	-.076	-.086
966.50	-.074	-.094
964.50	-.073	-.084
962.50	-.068	-.074
960.50	-.073	-.077
958.50	-.068	-.076
956.50	-.061	-.070
954.50	-.064	-.067
952.50	-.070	-.052
950.50	-.062	-.051
948.50	-.059	-.043
946.50	-.057	-.027
944.50	-.061	-.014
942.50	-.055	-.006
940.50	-.052	.008
938.50	-.049	.007
936.50	-.055	.007
934.50	-.058	.012
932.50	-.059	.010
930.50	-.058	.002
928.50	-.056	-.008
926.50	-.052	-.014
924.50	-.048	-.007
922.50	-.046	-.010
920.50	-.040	-.006
918.50	-.034	-.009
916.50	-.025	-.013
914.50	-.013	-.009
912.50	-.001	-.012
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .07
B-B DEFLECTION = -.19
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 8 -6-0922 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1000.50         .        .        .        .        .        X*       .        .        .        .        .
 998.50         .        .        .        .        .        X.       .        .        .        .        .
 996.50         .        .        .        .        .        X.       .        .        .        .        .
 994.50         .        .        .        .        .        X.       .        .        .        .        .
 992.50         .        .        .        .        .        X.       .        .        .        .        .
 990.50         .        .        .        .        .        X.       .        .        .        .        .
 988.50         .        .        .        .        .        X.       .        .        .        .        .
 986.50         .        .        .        .        .        X.       .        .        .        .        .
 984.50         .        .        .        .        .        X.       .        .        .        .        .
 982.50         .        .        .        .        .        X.       .        .        .        .        .
 980.50         .        .        .        .        .        X.       .        .        .        .        .
 978.50         .        .        .        .        .        X.       .        .        .        .        .
 976.50         .        .        .        .        .        X.       .        .        .        .        .
 974.50         .        .        .        .        .        X.       .        .        .        .        .
 972.50         .        .        .        .        .        X.       .        .        .        .        .
 970.50         .        .        .        .        .        X.       .        .        .        .        .
 968.50         .        .        .        .        .        X.       .        .        .        .        .
 966.50         .        .        .        .        .        X.       .        .        .        .        .
 964.50         .        .        .        .        .        X.       .        .        .        .        .
 962.50         .        .        .        .        .        X.       .        .        .        .        .
 960.50         .        .        .        .        .        X.       .        .        .        .        .
 958.50         .        .        .        .        .        X.       .        .        .        .        .
 956.50         .        .        .        .        .        X.       .        .        .        .        .
 954.50         .        .        .        .        .        X.       .        .        .        .        .
 952.50         .        .        .        .        .        X.       .        .        .        .        .
 950.50         .        .        .        .        .        X.       .        .        .        .        .
 948.50         .        .        .        .        .        *X       .        .        .        .        .
 946.50         .        .        .        .        .        *X       .        .        .        .        .
 944.50         .        .        .        .        .        *X       .        .        .        .        .
 942.50         .        .        .        .        .        *X       .        .        .        .        .
 940.50         .        .        .        .        .        *X       .        .        .        .        .
 938.50         .        .        .        .        .         X       .        .        .        .        .
 936.50         .        .        .        .        .        *X       .        .        .        .        .
 934.50         .        .        .        .        .        *X       .        .        .        .        .
 932.50         .        .        .        .        .        *X       .        .        .        .        .
 930.50         .        .        .        .        .        *X       .        .        .        .        .
 928.50         .        .        .        .        .        *X       .        .        .        .        .
 926.50         .        .        .        .        .        *X       .        .        .        .        .
 924.50         .        .        .        .        .         X       .        .        .        .        .
 922.50         .        .        .        .        .         X       .        .        .        .        .
 920.50         .        .        .        .        .         X       .        .        .        .        .
 918.50         .        .        .        .        .         X       .        .        .        .        .
 916.50         .        .        .        .        .         X       .        .        .        .        .
 914.50         .        .        .        .        .         X       .        .        .        .        .
 912.50         .        .        .        .        .         X       .        .        .        .        .
 910.50         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
DATE NOV. 8, 1986
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 82 B-B MEAN BIAS = 27 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

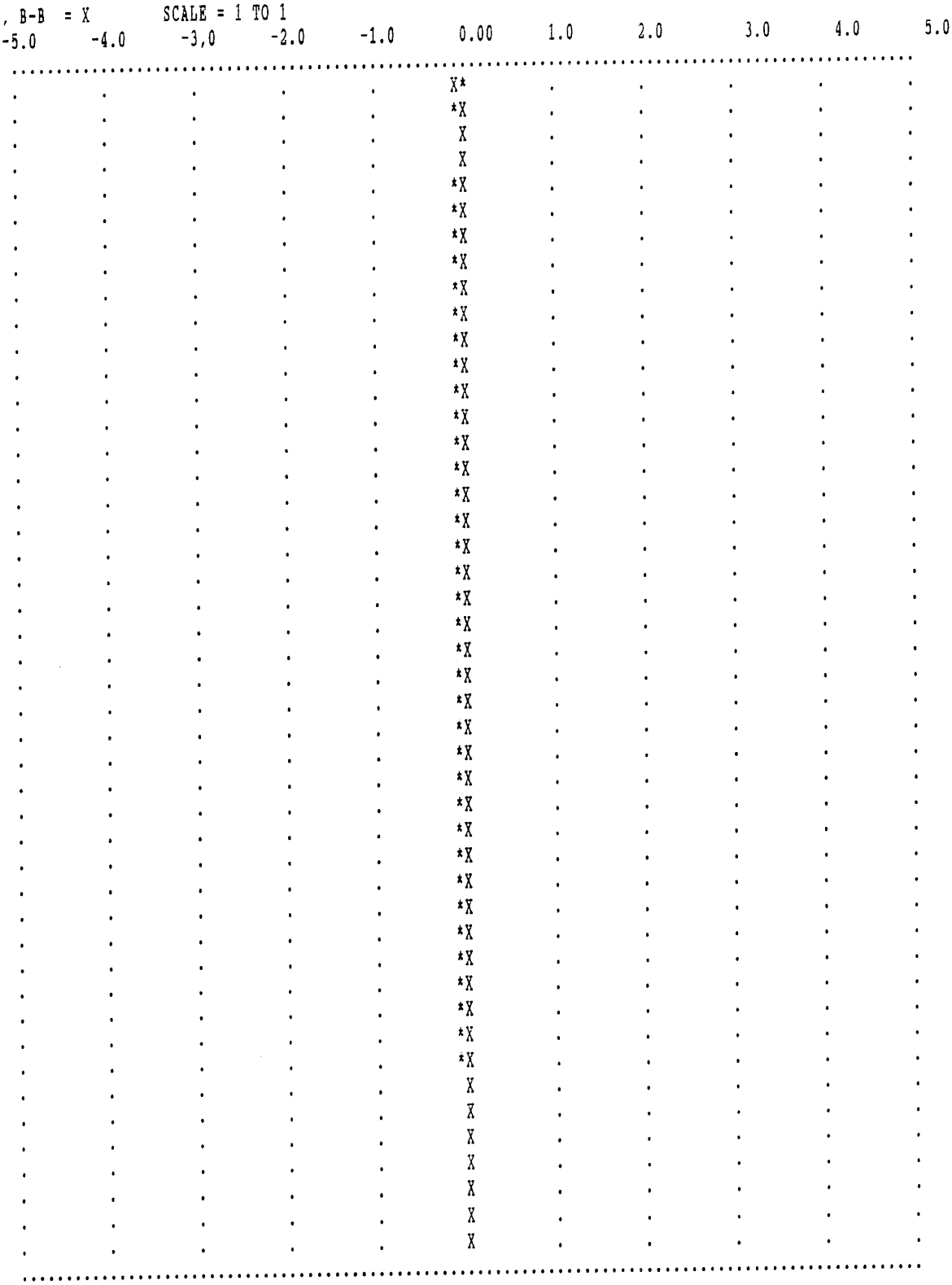
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.033	-.088
998.50	-.058	-.016
996.50	-.049	-.022
994.50	-.044	-.029
992.50	-.053	-.034
990.50	-.055	-.035
988.50	-.057	-.041
986.50	-.065	-.032
984.50	-.063	-.029
982.50	-.059	-.027
980.50	-.059	-.019
978.50	-.061	-.024
976.50	-.068	-.030
974.50	-.070	-.038
972.50	-.068	-.031
970.50	-.068	-.023
968.50	-.070	-.015
966.50	-.069	-.017
964.50	-.069	-.019
962.50	-.065	-.024
960.50	-.071	-.021
958.50	-.068	-.018
956.50	-.059	-.007
954.50	-.065	-.004
952.50	-.072	.015
950.50	-.063	.011
948.50	-.062	.022
946.50	-.060	.032
944.50	-.067	.037
942.50	-.061	.040
940.50	-.059	.044
938.50	-.056	.040
936.50	-.062	.037
934.50	-.065	.031
932.50	-.067	.035
930.50	-.068	.013
928.50	-.065	.011
926.50	-.059	.017
924.50	-.054	.018
922.50	-.050	.012
920.50	-.041	.020
918.50	-.033	.017
916.50	-.026	.007
914.50	-.014	.010
912.50	-.002	.000
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .12
B-B DEFLECTION = -.16
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
DATE MAY 8, 1987
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 68 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

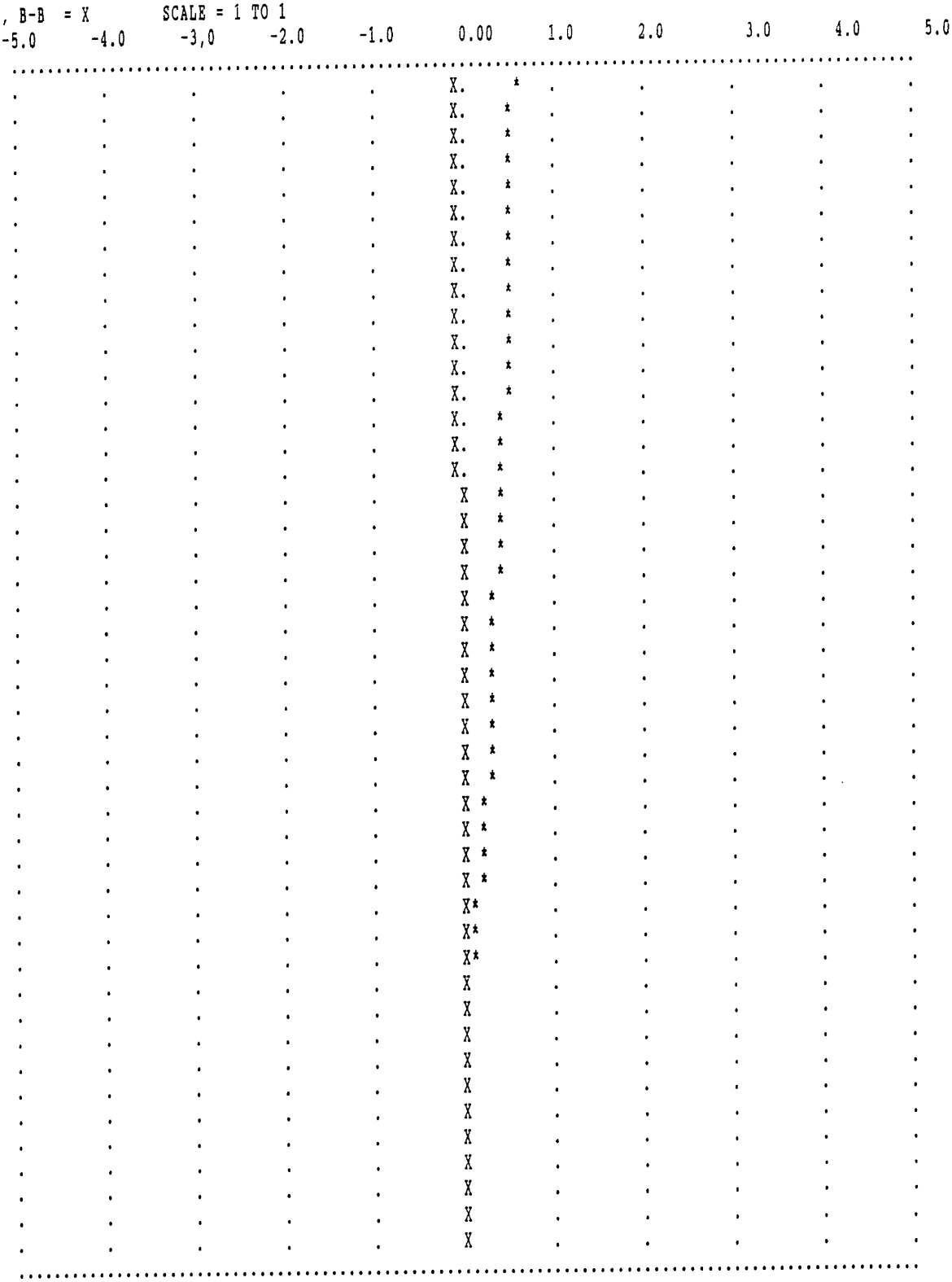
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.596	-.140
998.50	.472	-.095
996.50	.478	-.090
994.50	.479	-.095
992.50	.470	-.095
990.50	.471	-.088
988.50	.469	-.086
986.50	.461	-.076
984.50	.464	-.076
982.50	.470	-.072
980.50	.470	-.062
978.50	.469	-.065
976.50	.451	-.071
974.50	.435	-.065
972.50	.422	-.066
970.50	.407	-.051
968.50	.394	-.044
966.50	.380	-.042
964.50	.365	-.040
962.50	.358	-.033
960.50	.337	-.035
958.50	.323	-.029
956.50	.321	-.022
954.50	.298	-.023
952.50	.280	-.006
950.50	.278	-.008
948.50	.268	.001
946.50	.262	.008
944.50	.228	.012
942.50	.220	.017
940.50	.202	.020
938.50	.168	.014
936.50	.124	.007
934.50	.090	-.005
932.50	.058	-.008
930.50	.039	-.019
928.50	.033	-.019
926.50	.035	-.014
924.50	.030	-.004
922.50	.025	-.006
920.50	.020	.002
918.50	.023	.011
916.50	.022	.014
914.50	.005	.013
912.50	.012	-.003
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .72
B-B DEFLECTION = -.18
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

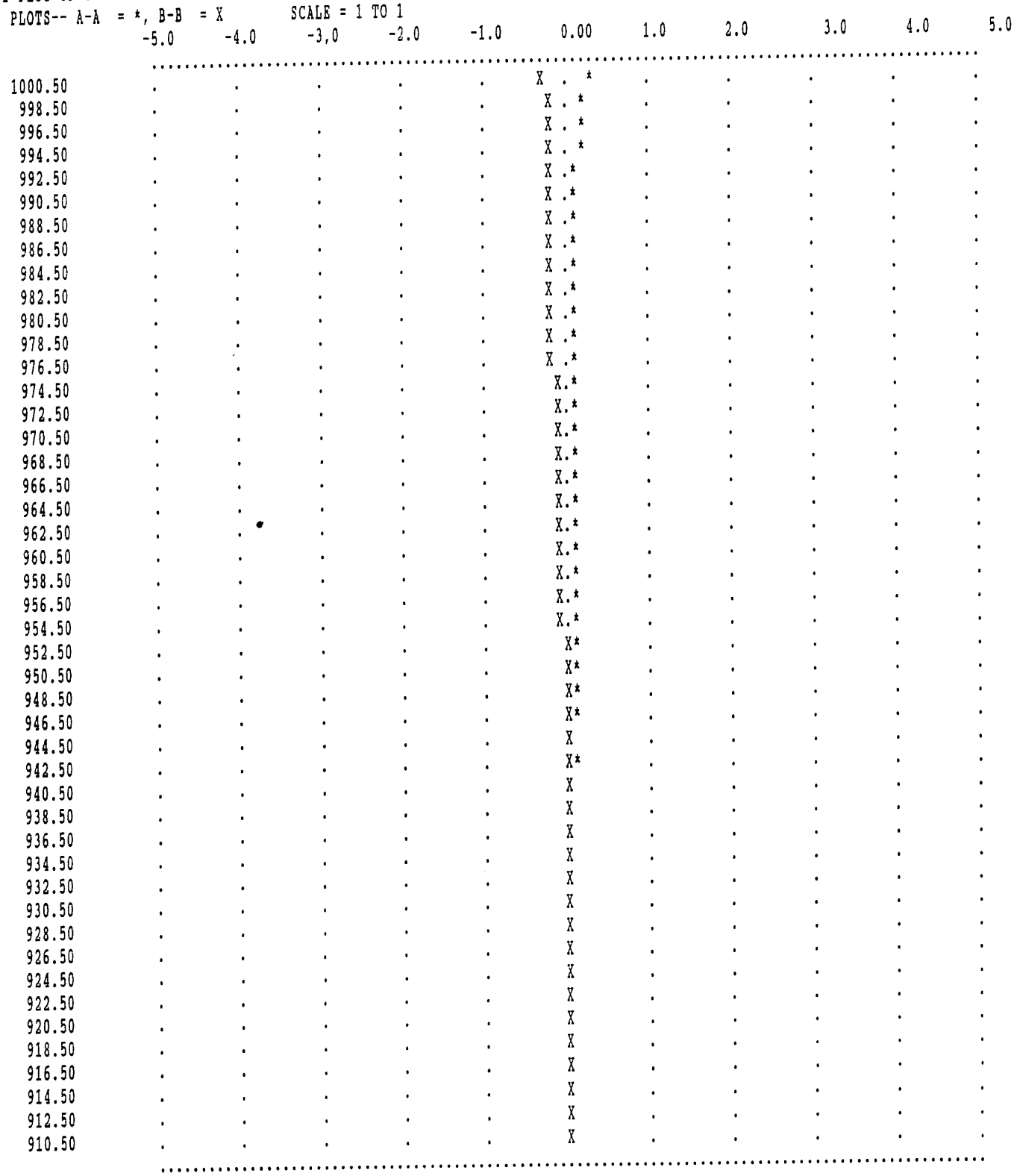


1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
DATE JUNE 22, 1987
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 71 B-B MEAN BIAS = 78 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.284	-.263
998.50	.160	-.211
996.50	.159	-.208
994.50	.161	-.209
992.50	.146	-.197
990.50	.143	-.194
988.50	.138	-.196
986.50	.122	-.179
984.50	.119	-.181
982.50	.122	-.173
980.50	.116	-.160
978.50	.111	-.154
976.50	.103	-.155
974.50	.097	-.148
972.50	.098	-.142
970.50	.098	-.126
968.50	.100	-.112
966.50	.097	-.104
964.50	.092	-.092
962.50	.096	-.080
960.50	.088	-.077
958.50	.086	-.071
956.50	.095	-.063
954.50	.083	-.058
952.50	.072	-.040
950.50	.079	-.046
948.50	.074	-.036
946.50	.074	-.026
944.50	.049	-.020
942.50	.051	-.012
940.50	.043	.000
938.50	.041	-.015
936.50	.026	-.020
934.50	.017	-.022
932.50	.005	-.018
930.50	.002	-.029
928.50	.002	-.028
926.50	.004	-.023
924.50	.002	-.008
922.50	-.003	-.005
920.50	-.010	.008
918.50	-.005	.015
916.50	-.003	.016
914.50	.000	.017
912.50	.010	-.004
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .41
B-B DEFLECTION = -.32
TOP ELEVATION OF TUBE = 1002.50
1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
DATE OCT. 6, 1987
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 4 B-B MEAN BIAS = -14 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.419	.131
998.50	.316	.191
996.50	.308	.194
994.50	.310	.191
992.50	.295	.202
990.50	.293	.203
988.50	.289	.199
986.50	.275	.209
984.50	.277	.200
982.50	.281	.194
980.50	.278	.202
978.50	.273	.202
976.50	.263	.180
974.50	.255	.171
972.50	.254	.172
970.50	.253	.181
968.50	.249	.185
966.50	.244	.190
964.50	.238	.188
962.50	.242	.176
960.50	.229	.167
958.50	.227	.152
956.50	.237	.154
954.50	.217	.150
952.50	.200	.159
950.50	.206	.146
948.50	.198	.152
946.50	.193	.158
944.50	.157	.152
942.50	.155	.146
940.50	.146	.144
938.50	.143	.134
936.50	.126	.129
934.50	.114	.114
932.50	.101	.110
930.50	.097	.091
928.50	.096	.077
926.50	.097	.071
924.50	.090	.071
922.50	.080	.064
920.50	.076	.065
918.50	.074	.064
916.50	.071	.050
914.50	.070	.032
912.50	.074	.004
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .52
B-B DEFLECTION = .07
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

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                -5.0    -4.0    -3,0    -2.0    -1.0    0.00    1.0     2.0     3.0     4.0     5.0
               ..........................................................................................
1000.50        .       .       .       .       .       .X  *   .       .       .       .       .
 998.50        .       .       .       .       .       . X*    .       .       .       .       .
 996.50        .       .       .       .       .       . X*    .       .       .       .       .
 994.50        .       .       .       .       .       . X*    .       .       .       .       .
 992.50        .       .       .       .       .       . X*    .       .       .       .       .
 990.50        .       .       .       .       .       . X*    .       .       .       .       .
 988.50        .       .       .       .       .       . X*    .       .       .       .       .
 986.50        .       .       .       .       .       . X*    .       .       .       .       .
 984.50        .       .       .       .       .       . X*    .       .       .       .       .
 982.50        .       .       .       .       .       . X*    .       .       .       .       .
 980.50        .       .       .       .       .       . X*    .       .       .       .       .
 978.50        .       .       .       .       .       . X*    .       .       .       .       .
 976.50        .       .       .       .       .       . X*    .       .       .       .       .
 974.50        .       .       .       .       .       . X*    .       .       .       .       .
 972.50        .       .       .       .       .       . X*    .       .       .       .       .
 970.50        .       .       .       .       .       . X*    .       .       .       .       .
 968.50        .       .       .       .       .       . X     .       .       .       .       .
 966.50        .       .       .       .       .       . X     .       .       .       .       .
 964.50        .       .       .       .       .       . X     .       .       .       .       .
 962.50        .       .       .       .       .       . X     .       .       .       .       .
 960.50        .       .       .       .       .       . X     .       .       .       .       .
 958.50        .       .       .       .       .       . X     .       .       .       .       .
 956.50        .       .       .       .       .       . X     .       .       .       .       .
 954.50        .       .       .       .       .       .X*     .       .       .       .       .
 952.50        .       .       .       .       .       . X     .       .       .       .       .
 950.50        .       .       .       .       .       .X*     .       .       .       .       .
 948.50        .       .       .       .       .       . X     .       .       .       .       .
 946.50        .       .       .       .       .       . X     .       .       .       .       .
 944.50        .       .       .       .       .       . X     .       .       .       .       .
 942.50        .       .       .       .       .       .X*     .       .       .       .       .
 940.50        .       .       .       .       .       .X      .       .       .       .       .
 938.50        .       .       .       .       .       .X      .       .       .       .       .
 936.50        .       .       .       .       .       .X      .       .       .       .       .
 934.50        .       .       .       .       .       .X      .       .       .       .       .
 932.50        .       .       .       .       .       .X      .       .       .       .       .
 930.50        .       .       .       .       .       .X      .       .       .       .       .
 928.50        .       .       .       .       .       .X      .       .       .       .       .
 926.50        .       .       .       .       .       .X      .       .       .       .       .
 924.50        .       .       .       .       .       .X      .       .       .       .       .
 922.50        .       .       .       .       .       .X      .       .       .       .       .
 920.50        .       .       .       .       .       .X      .       .       .       .       .
 918.50        .       .       .       .       .       .X      .       .       .       .       .
 916.50        .       .       .       .       .       .X      .       .       .       .       .
 914.50        .       .       .       .       .       X*      .       .       .       .       .
 912.50        .       .       .       .       .       X*      .       .       .       .       .
 910.50        .       .       .       .       .       X       .       .       .       .       .
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1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2
DATE NOV. 18, 1987
BOTTOM ELEV. 910.5
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA VT, SI-85-2
A-A MEAN BIAS = 8 B-B MEAN BIAS = -20 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

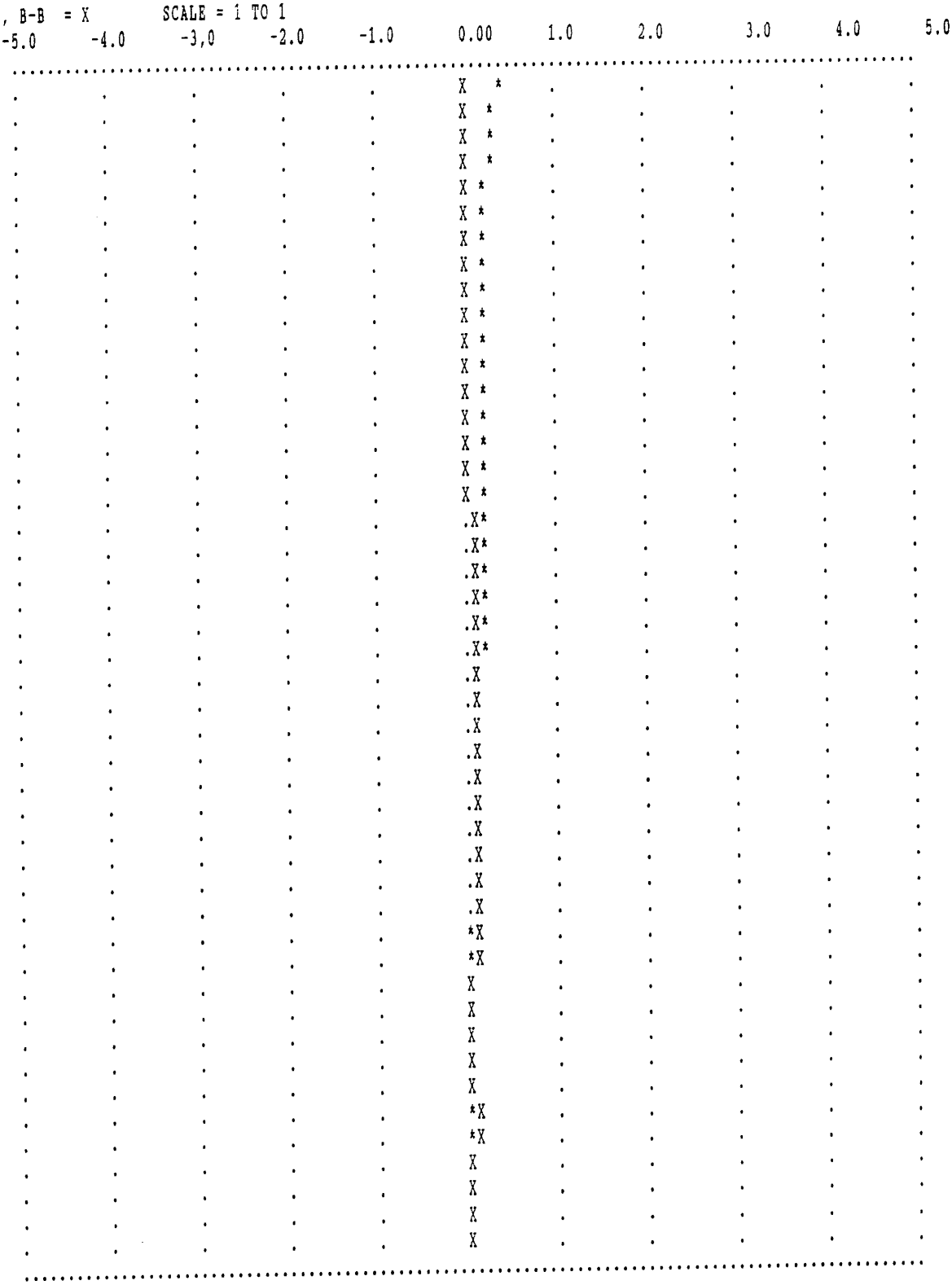
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1000.50	.398	-.048
998.50	.265	-.023
996.50	.259	-.023
994.50	.260	-.023
992.50	.245	-.011
990.50	.242	-.006
988.50	.237	-.008
986.50	.224	.004
984.50	.221	-.001
982.50	.226	.002
980.50	.224	.016
978.50	.220	.021
976.50	.212	.020
974.50	.204	.011
972.50	.203	.020
970.50	.200	.033
968.50	.193	.045
966.50	.181	.058
964.50	.176	.072
962.50	.180	.085
960.50	.165	.080
958.50	.162	.079
956.50	.170	.086
954.50	.148	.086
952.50	.128	.102
950.50	.135	.091
948.50	.127	.097
946.50	.121	.106
944.50	.085	.104
942.50	.085	.101
940.50	.076	.094
938.50	.071	.081
936.50	.056	.075
934.50	.044	.065
932.50	.034	.062
930.50	.029	.047
928.50	.028	.042
926.50	.029	.044
924.50	.024	.050
922.50	.016	.044
920.50	.013	.051
918.50	.011	.050
916.50	.011	.043
914.50	.011	.025
912.50	.016	-.002
910.50	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .53
B-B DEFLECTION = -.07
TOP ELEVATION OF TUBE = 1002.50

1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-2

PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1

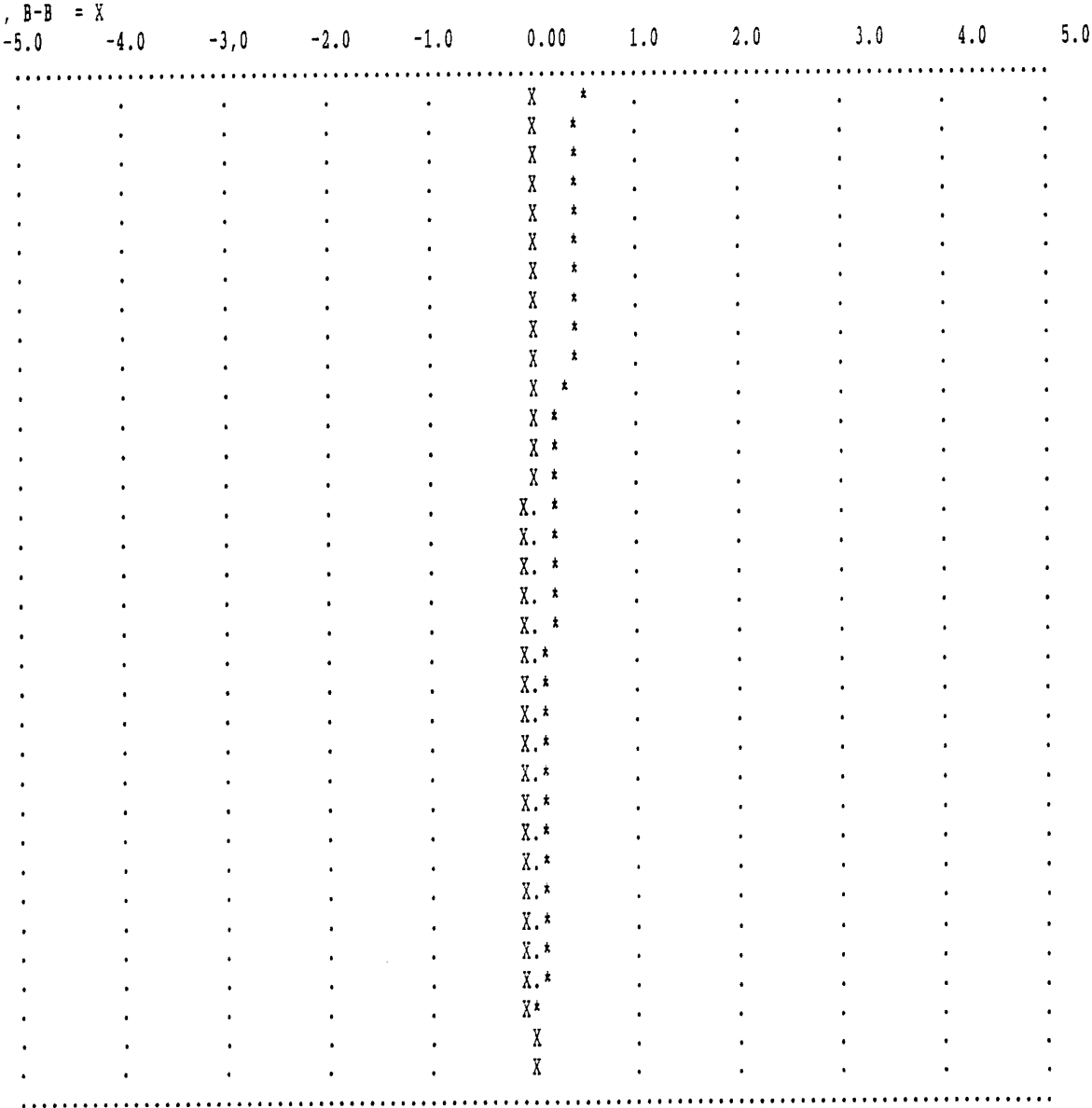


1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE MAY 8, 1987
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 88 B-B MEAN BIAS = 17 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.535	-.028
1037.90	.491	-.032
1035.90	.466	-.017
1033.90	.437	-.017
1031.90	.418	-.034
1029.90	.414	-.035
1027.90	.418	-.027
1025.90	.421	-.018
1023.90	.424	-.020
1021.90	.422	-.013
1019.90	.419	-.005
1017.90	.415	-.004
1015.90	.412	-.020
1013.90	.410	-.021
1011.90	.413	-.022
1009.90	.425	-.018
1007.90	.433	-.023
1005.90	.407	-.025
1003.90	.394	-.025
1001.90	.385	-.038
999.90	.366	-.029
997.90	.307	-.021
995.90	.240	-.023
993.90	.211	-.020
991.90	.187	-.022
989.90	.179	-.031
987.90	.173	-.032
985.90	.186	-.044
983.90	.184	-.052
981.90	.181	-.056
979.90	.175	-.073
977.90	.175	-.071
975.90	.176	-.066
973.90	.170	-.065
971.90	.167	-.064
969.90	.164	-.059
967.90	.159	-.050
965.90	.155	-.055
963.90	.148	-.058
961.90	.136	-.061
959.90	.130	-.070
957.90	.122	-.077
955.90	.109	-.072
953.90	.102	-.077
951.90	.101	-.080
949.90	.095	-.082
947.90	.088	-.083
945.90	.076	-.076
943.90	.076	-.078
941.90	.085	-.103
939.90	.082	-.119

937.90	.076	-.117
935.90	.072	-.131
933.90	.079	-.134
931.90	.079	-.125
929.90	.077	-.118
927.90	.071	-.119
925.90	.072	-.116
923.90	.065	-.103
921.90	.055	-.088
919.90	.054	-.076
917.90	.055	-.079
915.90	.061	-.094
913.90	.034	-.054
911.90	.019	-.026
909.90	.017	-.013
907.90	.011	-.002
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .58
B-B DEFLECTION = -.02
TOP ELEVATION OF TUBE = 1041.90
1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE JUNE 22, 1987
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 71 B-B MEAN BIAS = 68 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.554	.158
1037.90	.511	.158
1035.90	.484	.173
1033.90	.455	.175
1031.90	.434	.163
1029.90	.430	.160
1027.90	.435	.168
1025.90	.441	.178
1023.90	.445	.176
1021.90	.444	.170
1019.90	.440	.180
1017.90	.439	.185
1015.90	.440	.171
1013.90	.445	.158
1011.90	.449	.160
1009.90	.463	.160
1007.90	.472	.147
1005.90	.448	.148
1003.90	.433	.154
1001.90	.425	.156
999.90	.408	.157
997.90	.350	.158
995.90	.286	.150
993.90	.256	.149
991.90	.232	.137
989.90	.225	.116
987.90	.220	.107
985.90	.212	.100
983.90	.215	.089
981.90	.216	.082
979.90	.215	.069
977.90	.218	.070
975.90	.220	.074
973.90	.215	.075
971.90	.210	.080
969.90	.207	.090
967.90	.203	.092
965.90	.196	.091
963.90	.187	.082
961.90	.172	.074
959.90	.165	.061
957.90	.155	.050
955.90	.140	.049
953.90	.130	.044
951.90	.127	.033
949.90	.125	.031
947.90	.116	.021
945.90	.107	.015
943.90	.112	.007
941.90	.127	-.021
939.90	.125	-.041

937.90	.119	-.053
935.90	.117	-.074
933.90	.105	-.075
931.90	.109	-.075
929.90	.110	-.072
927.90	.109	-.078
925.90	.110	-.083
923.90	.106	-.077
921.90	.094	-.059
919.90	.091	-.052
917.90	.091	-.057
915.90	.093	-.076
913.90	.055	-.033
911.90	.037	-.012
909.90	.035	-.012
907.90	.022	-.002
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .60
B-B DEFLECTION = .16
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

PLOTS-- A-A = *, B-B = X

```
                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1039.90         .        .        .        .        .        . X  *   .        .        .        .        .
1035.90         .        .        .        .        .        . X  *   .        .        .        .        .
1031.90         .        .        .        .        .        . X *     .        .        .        .        .
1027.90         .        .        .        .        .        . X *     .        .        .        .        .
1023.90         .        .        .        .        .        . X *     .        .        .        .        .
1019.90         .        .        .        .        .        . X *     .        .        .        .        .
1015.90         .        .        .        .        .        . X *     .        .        .        .        .
1011.90         .        .        .        .        .        . X  *    .        .        .        .        .
1007.90         .        .        .        .        .        .X  *     .        .        .        .        .
1003.90         .        .        .        .        .        . X *     .        .        .        .        .
 999.90         .        .        .        .        .        . X*      .        .        .        .        .
 995.90         .        .        .        .        .        .X *      .        .        .        .        .
 991.90         .        .        .        .        .        .X*       .        .        .        .        .
 987.90         .        .        .        .        .        .X*       .        .        .        .        .
 983.90         .        .        .        .        .        .X*       .        .        .        .        .
 979.90         .        .        .        .        .        .X*       .        .        .        .        .
 975.90         .        .        .        .        .        .X*       .        .        .        .        .
 971.90         .        .        .        .        .        .X*       .        .        .        .        .
 967.90         .        .        .        .        .        .X*       .        .        .        .        .
 963.90         .        .        .        .        .        .X*       .        .        .        .        .
 959.90         .        .        .        .        .        .X*       .        .        .        .        .
 955.90         .        .        .        .        .        X*        .        .        .        .        .
 951.90         .        .        .        .        .        X*        .        .        .        .        .
 947.90         .        .        .        .        .        X*        .        .        .        .        .
 943.90         .        .        .        .        .        X*        .        .        .        .        .
 939.90         .        .        .        .        .        X.*       .        .        .        .        .
 935.90         .        .        .        .        .        X.*       .        .        .        .        .
 931.90         .        .        .        .        .        X.*       .        .        .        .        .
 927.90         .        .        .        .        .        X.*       .        .        .        .        .
 923.90         .        .        .        .        .        X.*       .        .        .        .        .
 919.90         .        .        .        .        .        X.*       .        .        .        .        .
 915.90         .        .        .        .        .         X*       .        .        .        .        .
 911.90         .        .        .        .        .         X        .        .        .        .        .
 907.90         .        .        .        .        .         X        .        .        .        .        .
                ..........................................................................................
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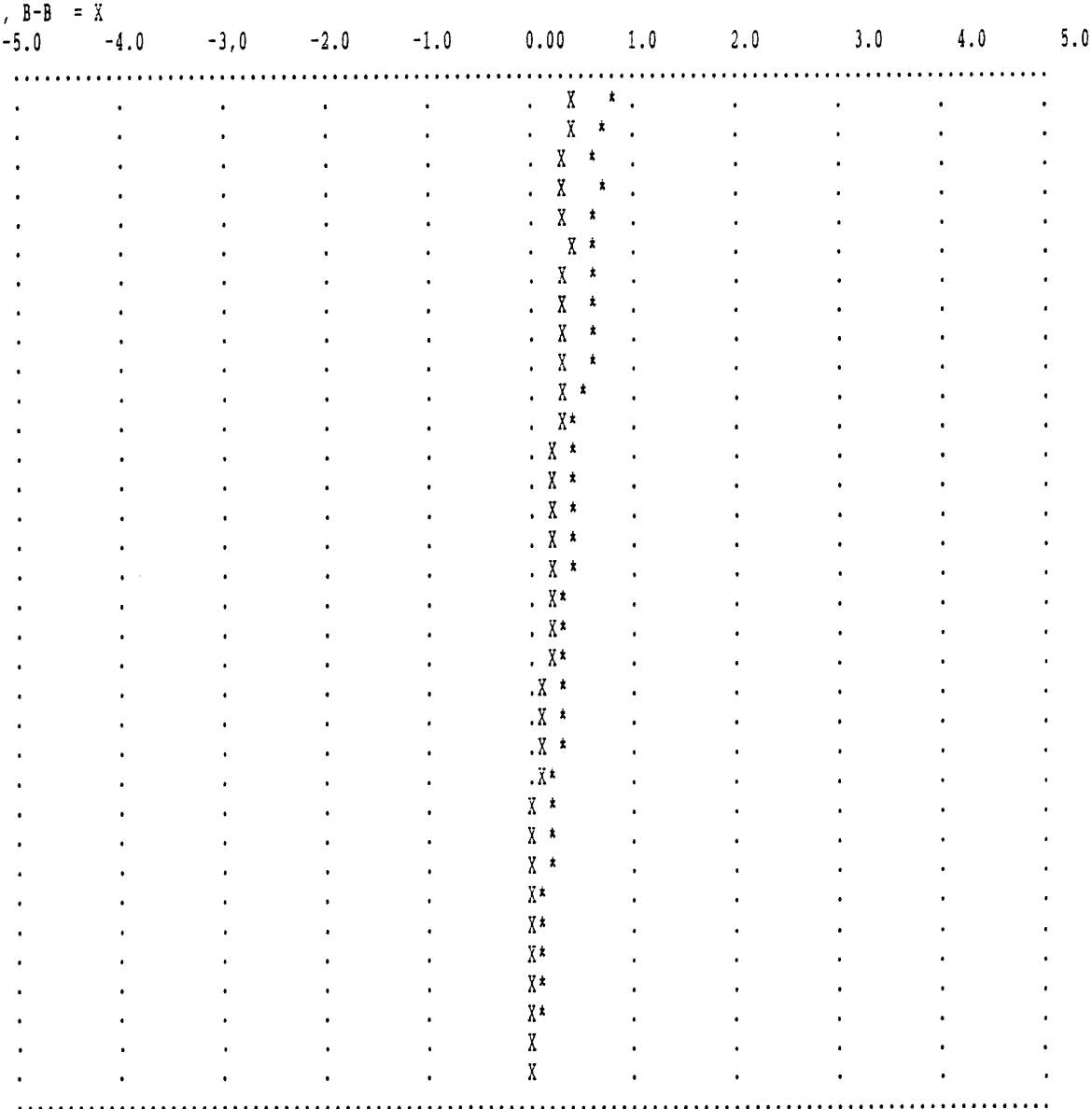
1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE OCT. 6, 1987
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = -1 B-B MEAN BIAS = -8 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.794	.359
1037.90	.754	.358
1035.90	.724	.364
1033.90	.685	.358
1031.90	.652	.334
1029.90	.643	.328
1027.90	.645	.331
1025.90	.652	.349
1023.90	.652	.345
1021.90	.649	.342
1019.90	.640	.351
1017.90	.629	.354
1015.90	.625	.332
1013.90	.622	.312
1011.90	.626	.302
1009.90	.640	.302
1007.90	.650	.309
1005.90	.621	.320
1003.90	.613	.332
1001.90	.610	.325
999.90	.592	.326
997.90	.532	.318
995.90	.461	.301
993.90	.428	.293
991.90	.401	.272
989.90	.391	.248
987.90	.383	.239
985.90	.398	.224
983.90	.393	.209
981.90	.388	.199
979.90	.378	.201
977.90	.370	.205
975.90	.366	.208
973.90	.357	.206
971.90	.352	.205
969.90	.346	.209
967.90	.341	.198
965.90	.336	.188
963.90	.322	.179
961.90	.310	.164
959.90	.303	.149
957.90	.296	.132
955.90	.287	.124
953.90	.275	.119
951.90	.269	.106
949.90	.252	.098
947.90	.237	.090
945.90	.214	.085
943.90	.205	.076
941.90	.205	.049
939.90	.199	.035

937.90	.184	.029
935.90	.173	.016
933.90	.161	.012
931.90	.153	.016
929.90	.144	.015
927.90	.133	.017
925.90	.124	.011
923.90	.107	.010
921.90	.094	.023
919.90	.091	.031
917.90	.086	.021
915.90	.088	-.001
913.90	.069	.019
911.90	.048	.026
909.90	.032	.025
907.90	.016	.027
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .83
B-B DEFLECTION = .36
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



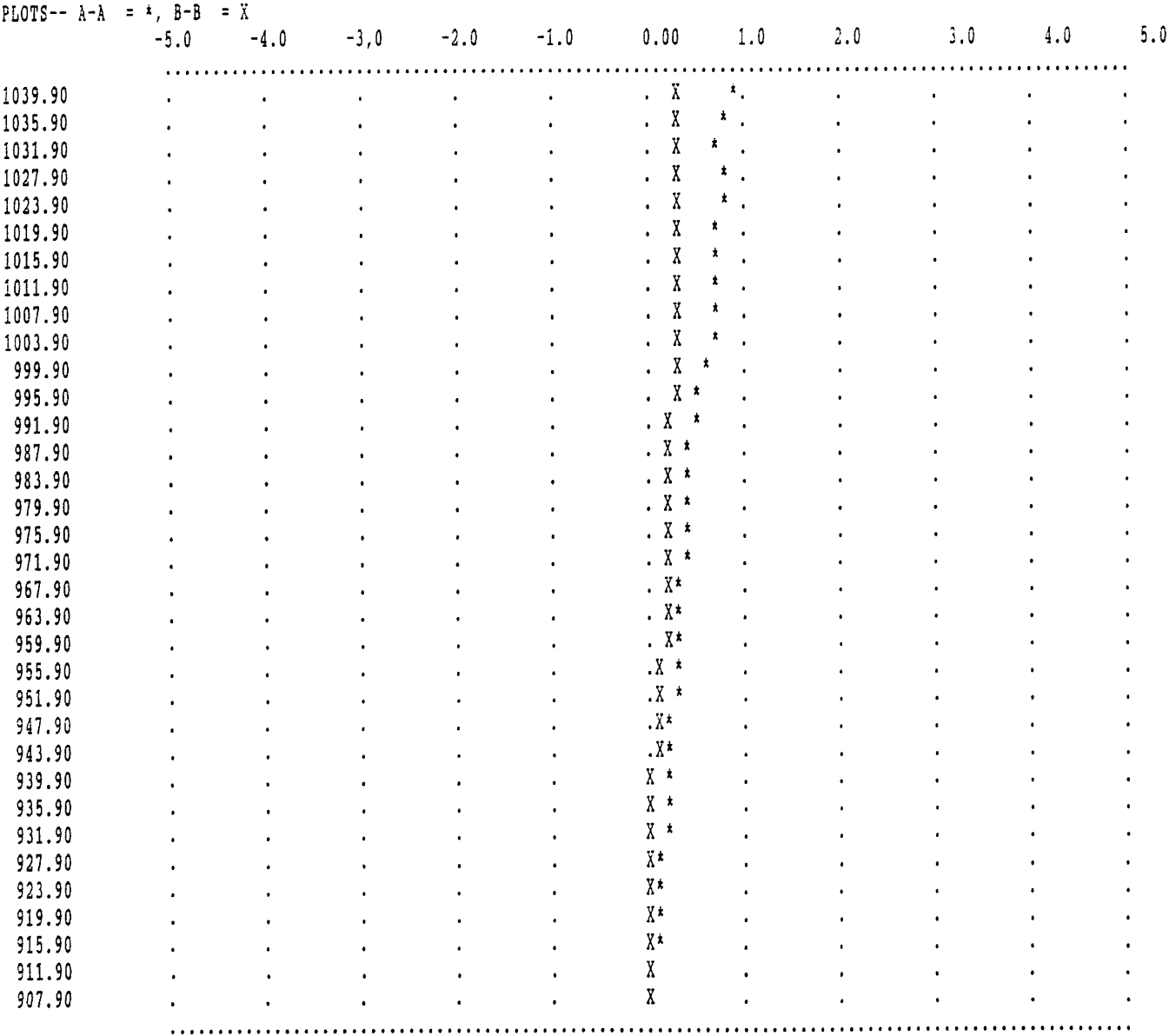
1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE NOV. 18, 1987
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 3 B-B MEAN BIAS = -19 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.922	.325
1037.90	.870	.328
1035.90	.836	.340
1033.90	.796	.339
1031.90	.757	.323
1029.90	.747	.320
1027.90	.749	.331
1025.90	.757	.346
1023.90	.758	.340
1021.90	.754	.343
1019.90	.746	.347
1017.90	.735	.346
1015.90	.730	.317
1013.90	.726	.299
1011.90	.728	.293
1009.90	.745	.293
1007.90	.754	.311
1005.90	.724	.321
1003.90	.713	.325
1001.90	.706	.319
999.90	.683	.315
997.90	.619	.319
995.90	.544	.301
993.90	.509	.292
991.90	.479	.269
989.90	.468	.243
987.90	.459	.237
985.90	.445	.214
983.90	.416	.201
981.90	.405	.203
979.90	.391	.217
977.90	.383	.221
975.90	.377	.227
973.90	.367	.227
971.90	.363	.227
969.90	.357	.228
967.90	.352	.220
965.90	.347	.209
963.90	.333	.197
961.90	.321	.182
959.90	.315	.169
957.90	.306	.152
955.90	.295	.143
953.90	.281	.133
951.90	.274	.114
949.90	.257	.101
947.90	.242	.088
945.90	.219	.086
943.90	.209	.080
941.90	.208	.063
939.90	.208	.051

937.90	.191	.048
935.90	.178	.039
933.90	.173	.031
931.90	.170	.034
929.90	.157	.035
927.90	.140	.021
925.90	.131	.014
923.90	.110	.019
921.90	.097	.029
919.90	.092	.036
917.90	.087	.026
915.90	.088	.003
913.90	.069	.018
911.90	.049	.012
909.90	.031	.007
907.90	.015	.014
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .97
B-B DEFLECTION = .32
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



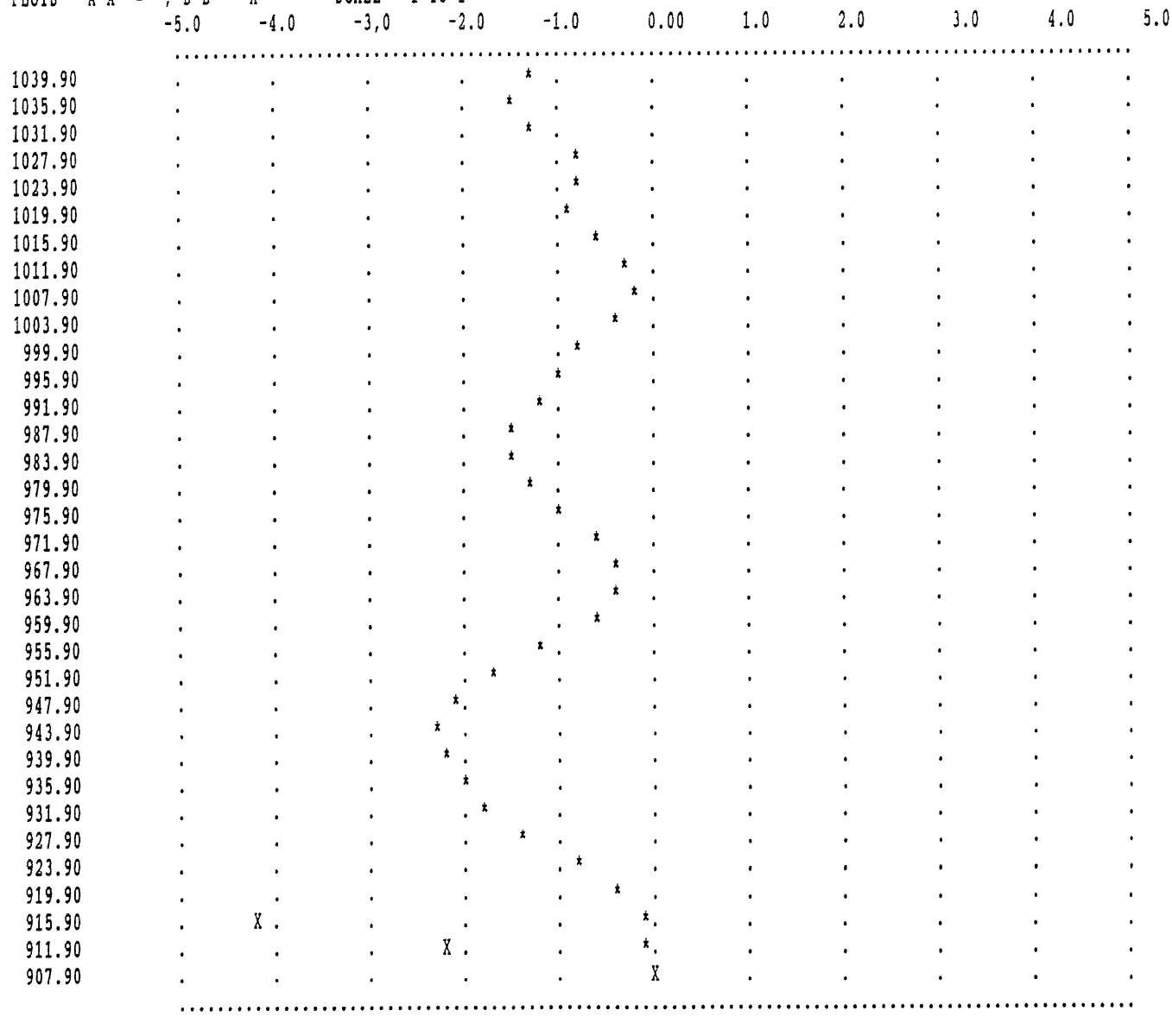
1**** 86-0123 BALL MOUNTAIN DAM, JAIMACA, VT SI-85-3 INITIAL READINGS
DATE JAN. 23, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 110 B-B MEAN BIAS = 19 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	-.892	-40.417
1037.90	-1.262	-40.075
1035.90	-1.456	-39.848
1033.90	-1.538	-39.617
1031.90	-1.484	-39.394
1029.90	-1.298	-39.228
1027.90	-1.042	-39.102
1025.90	-.850	-38.913
1023.90	-.840	-38.599
1021.90	-.850	-38.291
1019.90	-.917	-37.916
1017.90	-.859	-37.453
1015.90	-.754	-36.860
1013.90	-.631	-36.284
1011.90	-.437	-35.780
1009.90	-.314	-35.396
1007.90	-.265	-35.294
1005.90	-.230	-35.395
1003.90	-.253	-35.407
1001.90	-.398	-35.180
999.90	-.618	-34.687
997.90	-.793	-34.076
995.90	-.930	-33.371
993.90	-1.004	-32.734
991.90	-1.102	-32.105
989.90	-1.227	-31.477
987.90	-1.335	-30.890
985.90	-1.457	-30.299
983.90	-1.481	-29.715
981.90	-1.468	-29.177
979.90	-1.436	-28.670
977.90	-1.330	-28.101
975.90	-1.154	-27.476
973.90	-.956	-26.839
971.90	-.774	-26.139
969.90	-.633	-25.381
967.90	-.502	-24.638
965.90	-.410	-23.821
963.90	-.350	-22.999
961.90	-.382	-22.190
959.90	-.475	-21.424
957.90	-.628	-20.714
955.90	-.859	-20.004
953.90	-1.154	-19.268
951.90	-1.446	-18.466
949.90	-1.725	-17.606
947.90	-1.915	-16.720
945.90	-2.118	-15.848
943.90	-2.237	-15.011
941.90	-2.261	-14.209
939.90	-2.240	-13.456

937.90	-2.207	-12.716
935.90	-2.141	-12.065
933.90	-2.049	-11.500
931.90	-1.949	-10.906
929.90	-1.804	-10.279
927.90	-1.606	-9.629
925.90	-1.372	-8.951
923.90	-1.104	-8.244
921.90	-.821	-7.526
919.90	-.595	-6.753
917.90	-.392	-5.950
915.90	-.201	-5.128
913.90	-.118	-4.223
911.90	-.121	-3.218
909.90	-.110	-2.173
907.90	-.054	-1.111
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.52
B-B DEFLECTION = -40.76
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAIMACA, VT SI-85-3 INITIAL READINGS
PLOTS-- A-A = *, B-B = X SCALE = 1 TO 1



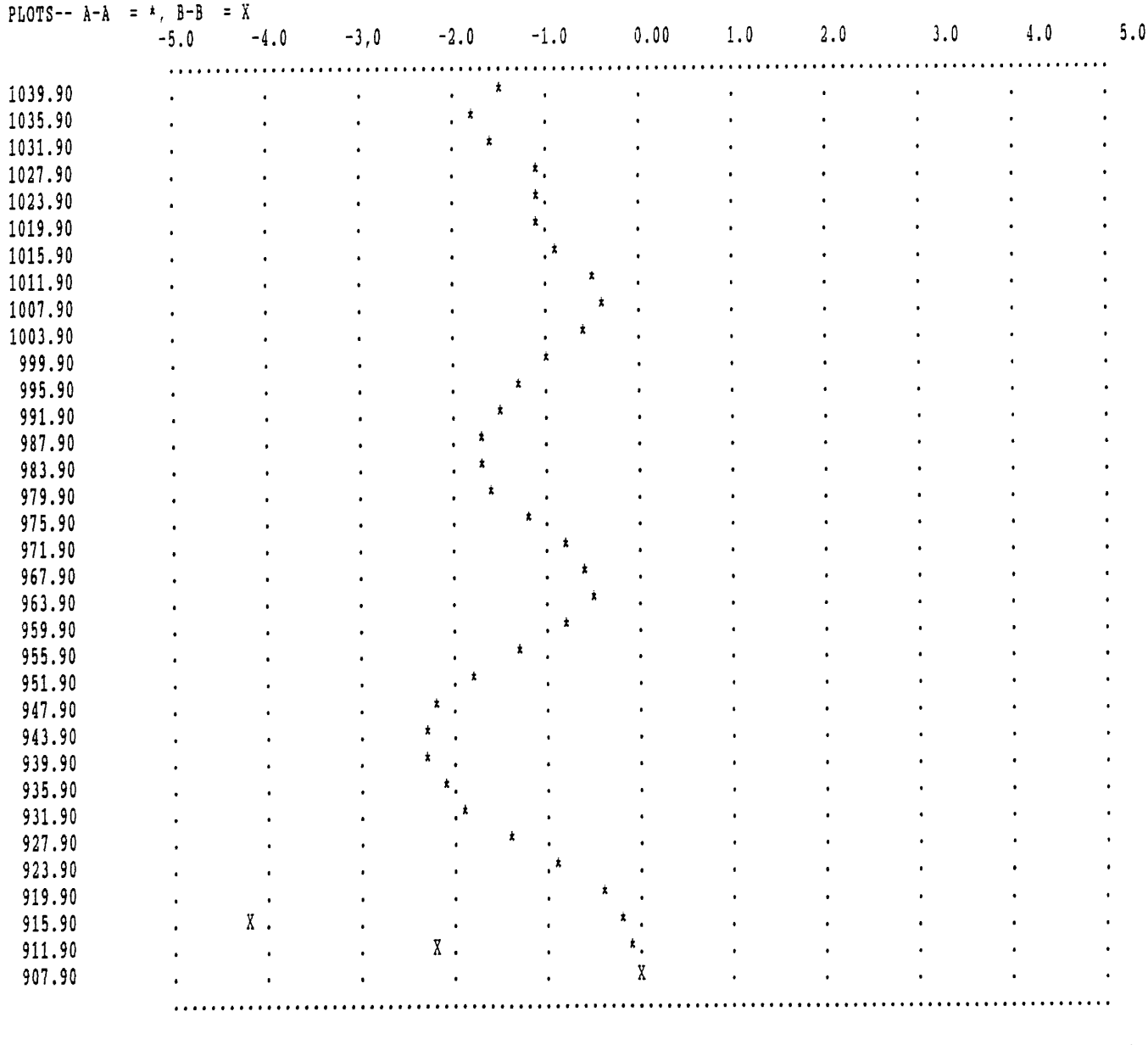
1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE APR. 1, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 70 B-B MEAN BIAS = 17 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	-1.245	-40.471
1037.90	-1.549	-40.132
1035.90	-1.746	-39.907
1033.90	-1.831	-39.676
1031.90	-1.775	-39.449
1029.90	-1.586	-39.287
1027.90	-1.324	-39.169
1025.90	-1.121	-38.993
1023.90	-1.105	-38.677
1021.90	-1.110	-38.363
1019.90	-1.174	-38.008
1017.90	-1.117	-37.551
1015.90	-1.001	-36.955
1013.90	-.866	-36.377
1011.90	-.667	-35.864
1009.90	-.529	-35.480
1007.90	-.466	-35.374
1005.90	-.434	-35.491
1003.90	-.448	-35.512
1001.90	-.592	-35.274
999.90	-.823	-34.772
997.90	-1.016	-34.165
995.90	-1.172	-33.456
993.90	-1.260	-32.813
991.90	-1.366	-32.164
989.90	-1.490	-31.537
987.90	-1.597	-30.950
985.90	-1.695	-30.343
983.90	-1.718	-29.738
981.90	-1.704	-29.186
979.90	-1.670	-28.677
977.90	-1.564	-28.120
975.90	-1.382	-27.500
973.90	-1.174	-26.852
971.90	-.991	-26.150
969.90	-.834	-25.404
967.90	-.688	-24.658
965.90	-.582	-23.843
963.90	-.517	-23.023
961.90	-.536	-22.207
959.90	-.619	-21.442
957.90	-.763	-20.735
955.90	-.986	-20.017
953.90	-1.277	-19.271
951.90	-1.563	-18.457
949.90	-1.837	-17.586
947.90	-2.020	-16.698
945.90	-2.216	-15.819
943.90	-2.332	-14.986
941.90	-2.347	-14.171
939.90	-2.325	-13.409

937.90	-2.290	-12.667
935.90	-2.223	-12.012
933.90	-2.129	-11.453
931.90	-2.021	-10.866
929.90	-1.871	-10.243
927.90	-1.670	-9.591
925.90	-1.443	-8.917
923.90	-1.169	-8.233
921.90	-.880	-7.517
919.90	-.647	-6.753
917.90	-.437	-5.949
915.90	-.239	-5.134
913.90	-.151	-4.234
911.90	-.145	-3.229
909.90	-.128	-2.180
907.90	-.066	-1.127
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.94
B-B DEFLECTION = -40.81
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE MAY 13, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 68 B-B MEAN BIAS = 85 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

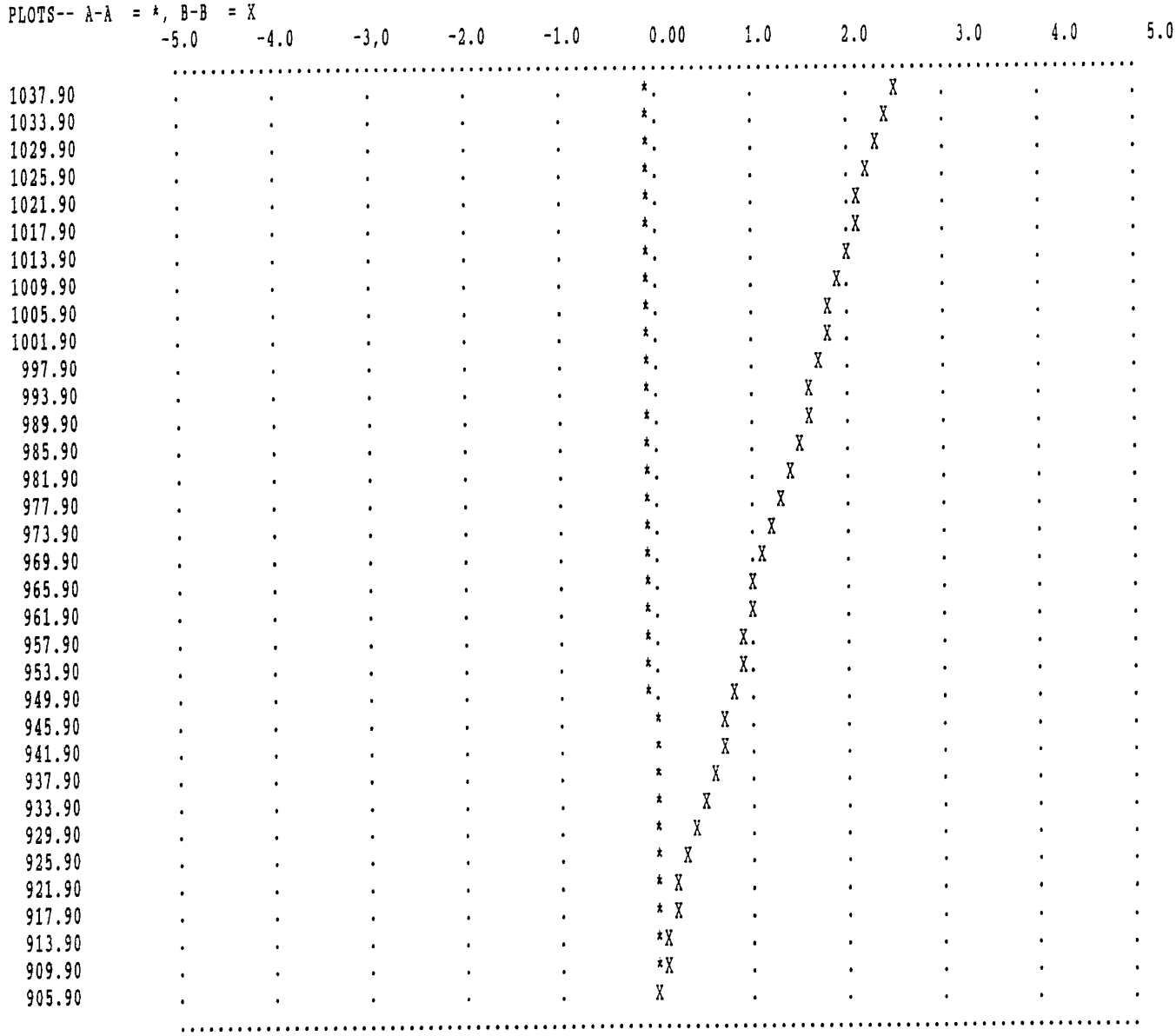
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1037.90	-.082	2.471
1035.90	-.091	2.462
1033.90	-.094	2.437
1031.90	-.098	2.380
1029.90	-.101	2.329
1027.90	-.104	2.253
1025.90	-.103	2.215
1023.90	-.101	2.177
1021.90	-.100	2.138
1019.90	-.098	2.109
1017.90	-.096	2.074
1015.90	-.096	2.029
1013.90	-.095	1.988
1011.90	-.094	1.936
1009.90	-.092	1.881
1007.90	-.095	1.832
1005.90	-.101	1.802
1003.90	-.105	1.776
1001.90	-.104	1.757
999.90	-.104	1.720
997.90	-.103	1.701
995.90	-.104	1.666
993.90	-.102	1.634
991.90	-.099	1.597
989.90	-.095	1.558
987.90	-.093	1.527
985.90	-.094	1.491
983.90	-.091	1.449
981.90	-.090	1.405
979.90	-.089	1.362
977.90	-.087	1.320
975.90	-.083	1.276
973.90	-.083	1.222
971.90	-.079	1.164
969.90	-.074	1.124
967.90	-.071	1.081
965.90	-.069	1.041
963.90	-.069	1.001
961.90	-.067	.971
959.90	-.063	.946
957.90	-.061	.920
955.90	-.059	.893
953.90	-.058	.862
951.90	-.054	.835
949.90	-.051	.802
947.90	-.049	.777
945.90	-.044	.745
943.90	-.039	.718
941.90	-.035	.668
939.90	-.028	.612

937.90	-.025	.572
935.90	-.021	.524
933.90	-.023	.473
931.90	-.020	.446
929.90	-.019	.389
927.90	-.017	.342
925.90	-.011	.301
923.90	-.002	.260
921.90	.002	.232
919.90	.005	.201
917.90	.007	.167
915.90	.010	.124
913.90	.006	.095
911.90	.004	.074
909.90	.004	.055
907.90	.004	.034
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.07
B-B DEFLECTION = 2.49
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

PLOTS-- A-A = *, B-B = X



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE JUNE 16, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 80 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.192	.100
1037.90	.177	.075
1035.90	.163	.095
1033.90	.156	.101
1031.90	.146	.097
1029.90	.141	.095
1027.90	.139	.101
1025.90	.142	.108
1023.90	.143	.101
1021.90	.145	.098
1019.90	.141	.104
1017.90	.139	.105
1015.90	.137	.100
1013.90	.137	.097
1011.90	.138	.108
1009.90	.141	.115
1007.90	.142	.117
1005.90	.137	.119
1003.90	.137	.124
1001.90	.138	.130
999.90	.136	.133
997.90	.132	.135
995.90	.125	.127
993.90	.122	.124
991.90	.121	.114
989.90	.119	.109
987.90	.118	.112
985.90	.119	.112
983.90	.117	.107
981.90	.115	.102
979.90	.113	.104
977.90	.112	.103
975.90	.110	.104
973.90	.105	.101
971.90	.106	.094
969.90	.104	.098
967.90	.102	.097
965.90	.098	.088
963.90	.094	.079
961.90	.092	.076
959.90	.091	.072
957.90	.086	.060
955.90	.085	.057
953.90	.080	.064
951.90	.079	.057
949.90	.073	.050
947.90	.070	.050
945.90	.064	.042
943.90	.059	.047
941.90	.058	.037
939.90	.060	.028

937.90	.058	.033
935.90	.055	.034
933.90	.062	.016
931.90	.058	.021
929.90	.053	.007
927.90	.047	.004
925.90	.043	-.005
923.90	.035	.012
921.90	.032	.014
919.90	.031	.016
917.90	.025	.020
915.90	.026	.008
913.90	.025	.008
911.90	.015	.004
909.90	.011	.010
907.90	.008	.014
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .21
B-B DEFLECTION = .13
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1039.90         .        .        .        .        .        .X*      .        .        .        .        .
1035.90         .        .        .        .        .        .X*      .        .        .        .        .
1031.90         .        .        .        .        .        .X       .        .        .        .        .
1027.90         .        .        .        .        .        .X       .        .        .        .        .
1023.90         .        .        .        .        .        .X       .        .        .        .        .
1019.90         .        .        .        .        .        .X       .        .        .        .        .
1015.90         .        .        .        .        .        .X       .        .        .        .        .
1011.90         .        .        .        .        .        .X       .        .        .        .        .
1007.90         .        .        .        .        .        .X       .        .        .        .        .
1003.90         .        .        .        .        .        .X       .        .        .        .        .
 999.90         .        .        .        .        .        .X       .        .        .        .        .
 995.90         .        .        .        .        .        .X       .        .        .        .        .
 991.90         .        .        .        .        .        .X       .        .        .        .        .
 987.90         .        .        .        .        .        .X       .        .        .        .        .
 983.90         .        .        .        .        .        .X       .        .        .        .        .
 979.90         .        .        .        .        .        .X       .        .        .        .        .
 975.90         .        .        .        .        .        .X       .        .        .        .        .
 971.90         .        .        .        .        .        .X       .        .        .        .        .
 967.90         .        .        .        .        .        .X       .        .        .        .        .
 963.90         .        .        .        .        .        .X       .        .        .        .        .
 959.90         .        .        .        .        .        .X       .        .        .        .        .
 955.90         .        .        .        .        .        .X       .        .        .        .        .
 951.90         .        .        .        .        .        X*       .        .        .        .        .
 947.90         .        .        .        .        .        X*       .        .        .        .        .
 943.90         .        .        .        .        .        X*       .        .        .        .        .
 939.90         .        .        .        .        .        X*       .        .        .        .        .
 935.90         .        .        .        .        .        X*       .        .        .        .        .
 931.90         .        .        .        .        .        X*       .        .        .        .        .
 927.90         .        .        .        .        .        X        .        .        .        .        .
 923.90         .        .        .        .        .        X        .        .        .        .        .
 919.90         .        .        .        .        .        X        .        .        .        .        .
 915.90         .        .        .        .        .        X        .        .        .        .        .
 911.90         .        .        .        .        .        X        .        .        .        .        .
 907.90         .        .        .        .        .        X        .        .        .        .        .
                ..........................................................................................
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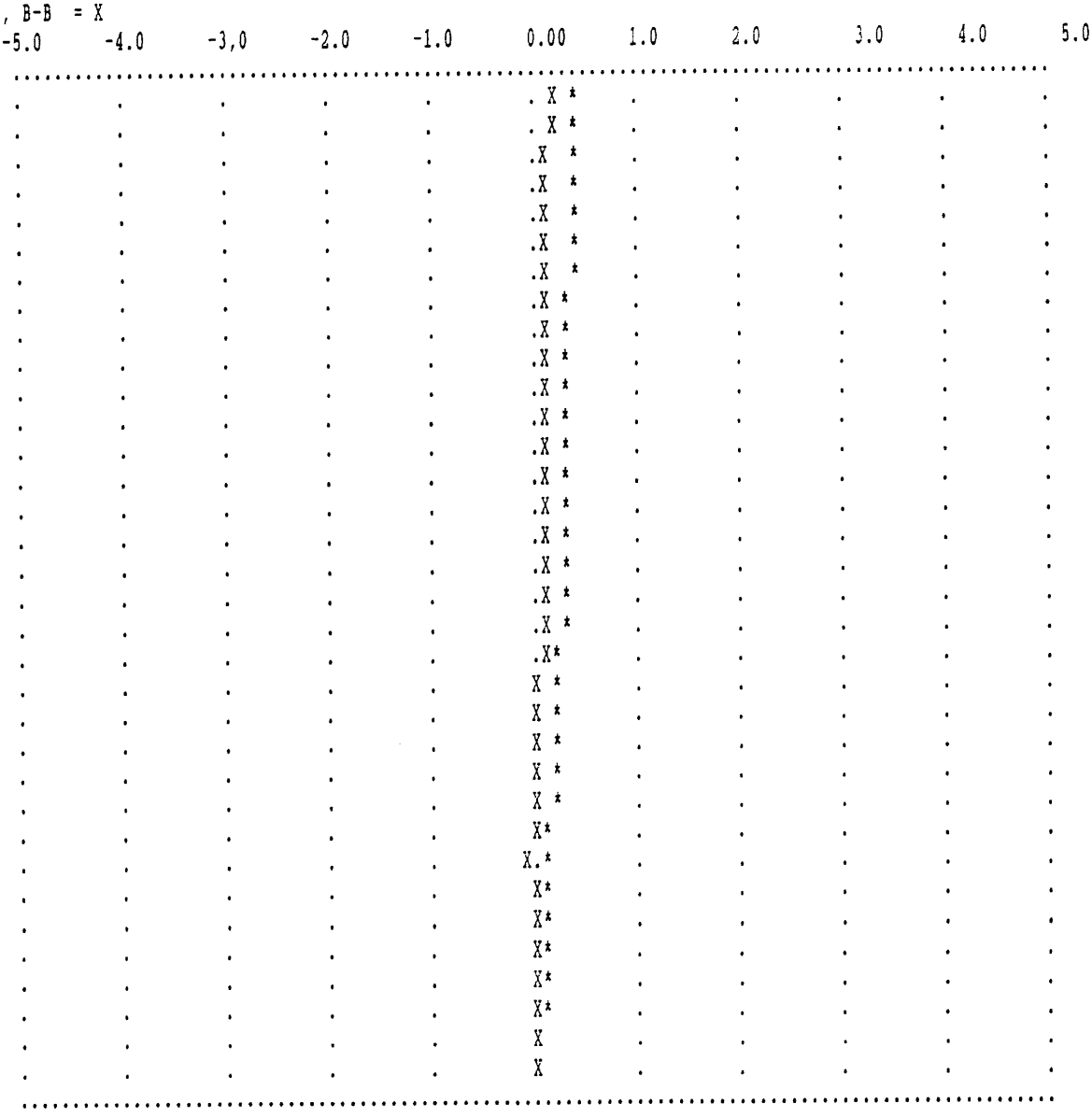
1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE JULY 16, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 94 B-B MEAN BIAS = 32 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.452	.226
1037.90	.436	.187
1035.90	.418	.196
1033.90	.405	.195
1031.90	.394	.178
1029.90	.385	.143
1027.90	.382	.143
1025.90	.379	.146
1023.90	.375	.137
1021.90	.372	.127
1019.90	.366	.137
1017.90	.364	.137
1015.90	.359	.130
1013.90	.358	.122
1011.90	.354	.125
1009.90	.350	.117
1007.90	.345	.118
1005.90	.339	.122
1003.90	.334	.139
1001.90	.331	.149
999.90	.329	.149
997.90	.321	.145
995.90	.317	.135
993.90	.309	.132
991.90	.303	.126
989.90	.301	.116
987.90	.296	.109
985.90	.290	.096
983.90	.289	.094
981.90	.286	.086
979.90	.283	.077
977.90	.283	.078
975.90	.281	.077
973.90	.275	.071
971.90	.269	.069
969.90	.265	.079
967.90	.260	.072
965.90	.251	.068
963.90	.242	.064
961.90	.230	.057
959.90	.221	.049
957.90	.211	.037
955.90	.199	.030
953.90	.189	.020
951.90	.182	.005
949.90	.178	-.002
947.90	.167	-.012
945.90	.158	-.016
943.90	.157	-.008
941.90	.159	-.032
939.90	.155	-.042

937.90	.147	-.042
935.90	.143	-.048
933.90	.124	-.054
931.90	.121	-.043
929.90	.117	-.035
927.90	.110	-.041
925.90	.108	-.046
923.90	.106	-.029
921.90	.096	-.019
919.90	.087	-.008
917.90	.080	-.011
915.90	.080	-.026
913.90	.056	-.001
911.90	.038	.007
909.90	.030	.006
907.90	.015	.012
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .47
B-B DEFLECTION = .26
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE AUG. 19, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 93 B-B MEAN BIAS = 8 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.271	.245
1037.90	.256	.220
1035.90	.239	.229
1033.90	.221	.226
1031.90	.209	.202
1029.90	.200	.191
1027.90	.198	.192
1025.90	.199	.206
1023.90	.197	.205
1021.90	.196	.195
1019.90	.191	.206
1017.90	.188	.208
1015.90	.188	.202
1013.90	.189	.196
1011.90	.191	.190
1009.90	.192	.182
1007.90	.190	.175
1005.90	.182	.172
1003.90	.178	.178
1001.90	.178	.174
999.90	.178	.175
997.90	.176	.166
995.90	.173	.148
993.90	.168	.140
991.90	.164	.123
989.90	.163	.106
987.90	.160	.104
985.90	.154	.095
983.90	.154	.084
981.90	.155	.077
979.90	.152	.074
977.90	.153	.073
975.90	.153	.071
973.90	.149	.074
971.90	.148	.073
969.90	.148	.086
967.90	.146	.088
965.90	.142	.081
963.90	.136	.079
961.90	.128	.070
959.90	.125	.068
957.90	.118	.062
955.90	.112	.060
953.90	.106	.051
951.90	.103	.043
949.90	.101	.038
947.90	.094	.031
945.90	.086	.031
943.90	.088	.035
941.90	.092	.020
939.90	.092	.011

937.90	.088	.007
935.90	.087	-.002
933.90	.079	-.013
931.90	.079	-.013
929.90	.076	-.019
927.90	.071	-.028
925.90	.070	-.034
923.90	.065	-.028
921.90	.059	-.023
919.90	.056	-.016
917.90	.055	-.028
915.90	.061	-.048
913.90	.043	-.026
911.90	.029	-.011
909.90	.024	-.003
907.90	.015	.009
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .28
B-B DEFLECTION = .27
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1039.90         .        .        .        .        .        . X*     .        .        .        .        .
1035.90         .        .        .        .        .        . X      .        .        .        .        .
1031.90         .        .        .        .        .        . X      .        .        .        .        .
1027.90         .        .        .        .        .        . X      .        .        .        .        .
1023.90         .        .        .        .        .        . X      .        .        .        .        .
1019.90         .        .        .        .        .        . X      .        .        .        .        .
1015.90         .        .        .        .        .        . X      .        .        .        .        .
1011.90         .        .        .        .        .        . X      .        .        .        .        .
1007.90         .        .        .        .        .        . X      .        .        .        .        .
1003.90         .        .        .        .        .        . X      .        .        .        .        .
 999.90         .        .        .        .        .        . X      .        .        .        .        .
 995.90         .        .        .        .        .        .X*      .        .        .        .        .
 991.90         .        .        .        .        .        .X*      .        .        .        .        .
 987.90         .        .        .        .        .        .X*      .        .        .        .        .
 983.90         .        .        .        .        .        .X*      .        .        .        .        .
 979.90         .        .        .        .        .        .X*      .        .        .        .        .
 975.90         .        .        .        .        .        .X       .        .        .        .        .
 971.90         .        .        .        .        .        .X       .        .        .        .        .
 967.90         .        .        .        .        .        .X       .        .        .        .        .
 963.90         .        .        .        .        .        .X       .        .        .        .        .
 959.90         .        .        .        .        .        .X       .        .        .        .        .
 955.90         .        .        .        .        .        .X       .        .        .        .        .
 951.90         .        .        .        .        .        X*       .        .        .        .        .
 947.90         .        .        .        .        .        X*       .        .        .        .        .
 943.90         .        .        .        .        .        X*       .        .        .        .        .
 939.90         .        .        .        .        .        X*       .        .        .        .        .
 935.90         .        .        .        .        .        X*       .        .        .        .        .
 931.90         .        .        .        .        .        X*       .        .        .        .        .
 927.90         .        .        .        .        .        X*       .        .        .        .        .
 923.90         .        .        .        .        .        X*       .        .        .        .        .
 919.90         .        .        .        .        .        X*       .        .        .        .        .
 915.90         .        .        .        .        .        X        .        .        .        .        .
 911.90         .        .        .        .        .        X        .        .        .        .        .
 907.90         .        .        .        .        .        X        .        .        .        .        .
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1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE NOV. 8, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 84 B-B MEAN BIAS = 16 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.360	.140
1037.90	.331	.127
1035.90	.311	.147
1033.90	.292	.148
1031.90	.278	.133
1029.90	.270	.133
1027.90	.268	.143
1025.90	.269	.157
1023.90	.267	.151
1021.90	.263	.151
1019.90	.257	.160
1017.90	.252	.163
1015.90	.250	.159
1013.90	.249	.151
1011.90	.250	.152
1009.90	.252	.148
1007.90	.247	.142
1005.90	.235	.145
1003.90	.230	.151
1001.90	.229	.153
999.90	.225	.151
997.90	.217	.154
995.90	.212	.134
993.90	.205	.130
991.90	.200	.116
989.90	.197	.105
987.90	.194	.097
985.90	.186	.094
983.90	.182	.094
981.90	.179	.098
979.90	.175	.085
977.90	.172	.089
975.90	.169	.095
973.90	.163	.094
971.90	.160	.086
969.90	.156	.097
967.90	.152	.096
965.90	.147	.095
963.90	.139	.088
961.90	.131	.078
959.90	.127	.074
957.90	.121	.068
955.90	.117	.064
953.90	.110	.059
951.90	.107	.052
949.90	.102	.045
947.90	.065	.035
945.90	.055	.034
943.90	.055	.035
941.90	.059	.019
939.90	.059	.009

937.90	.053	.012
935.90	.051	.000
933.90	.047	-.005
931.90	.047	.005
929.90	.045	.001
927.90	.041	-.004
925.90	.041	-.012
923.90	.035	-.014
921.90	.031	-.011
919.90	.031	-.013
917.90	.033	-.016
915.90	.041	-.027
913.90	.027	-.002
911.90	.014	.010
909.90	.012	.012
907.90	.008	.010
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .39
B-B DEFLECTION = .15
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3

PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1039.90         .        .        .        .        .       .X *     .        .        .        .        .
1035.90         .        .        .        .        .       .X *     .        .        .        .        .
1031.90         .        .        .        .        .       .X *     .        .        .        .        .
1027.90         .        .        .        .        .       . X*     .        .        .        .        .
1023.90         .        .        .        .        .       . X*     .        .        .        .        .
1019.90         .        .        .        .        .       . X*     .        .        .        .        .
1015.90         .        .        .        .        .       . X      .        .        .        .        .
1011.90         .        .        .        .        .       .X *     .        .        .        .        .
1007.90         .        .        .        .        .       .X*      .        .        .        .        .
1003.90         .        .        .        .        .       . X      .        .        .        .        .
 999.90         .        .        .        .        .       . X      .        .        .        .        .
 995.90         .        .        .        .        .       .X*      .        .        .        .        .
 991.90         .        .        .        .        .       .X*      .        .        .        .        .
 987.90         .        .        .        .        .       .X*      .        .        .        .        .
 983.90         .        .        .        .        .       .X*      .        .        .        .        .
 979.90         .        .        .        .        .       .X*      .        .        .        .        .
 975.90         .        .        .        .        .       .X*      .        .        .        .        .
 971.90         .        .        .        .        .       .X*      .        .        .        .        .
 967.90         .        .        .        .        .       .X       .        .        .        .        .
 963.90         .        .        .        .        .       .X       .        .        .        .        .
 959.90         .        .        .        .        .       .X       .        .        .        .        .
 955.90         .        .        .        .        .       .X       .        .        .        .        .
 951.90         .        .        .        .        .       X*       .        .        .        .        .
 947.90         .        .        .        .        .       X*       .        .        .        .        .
 943.90         .        .        .        .        .       X*       .        .        .        .        .
 939.90         .        .        .        .        .       X*       .        .        .        .        .
 935.90         .        .        .        .        .       X        .        .        .        .        .
 931.90         .        .        .        .        .       X        .        .        .        .        .
 927.90         .        .        .        .        .       X        .        .        .        .        .
 923.90         .        .        .        .        .       X        .        .        .        .        .
 919.90         .        .        .        .        .       X        .        .        .        .        .
 915.90         .        .        .        .        .       X        .        .        .        .        .
 911.90         .        .        .        .        .       X        .        .        .        .        .
 907.90         .        .        .        .        .       X        .        .        .        .        .
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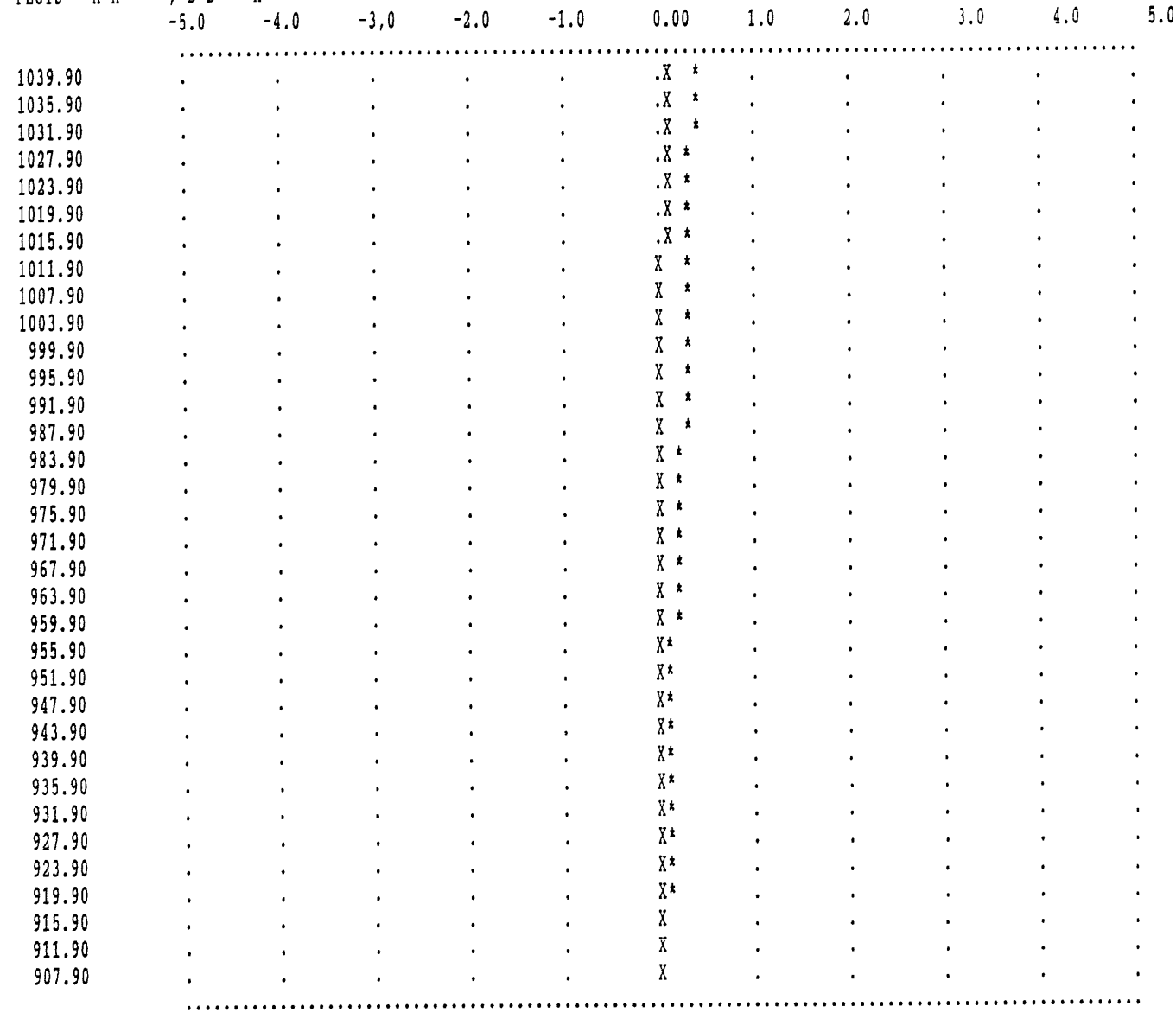
1**** 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
DATE SEP. 22, 1986
BOTTOM ELEV. 905.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
A-A MEAN BIAS = 88 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1039.90	.454	.077
1037.90	.426	.062
1035.90	.406	.072
1033.90	.384	.077
1031.90	.369	.065
1029.90	.360	.065
1027.90	.349	.068
1025.90	.347	.079
1023.90	.344	.072
1021.90	.342	.067
1019.90	.337	.071
1017.90	.332	.075
1015.90	.329	.067
1013.90	.326	.052
1011.90	.325	.048
1009.90	.324	.038
1007.90	.318	.042
1005.90	.308	.045
1003.90	.305	.050
1001.90	.305	.050
999.90	.304	.046
997.90	.295	.046
995.90	.291	.038
993.90	.283	.038
991.90	.278	.032
989.90	.275	.029
987.90	.269	.027
985.90	.257	.023
983.90	.254	.025
981.90	.249	.029
979.90	.243	.021
977.90	.241	.024
975.90	.238	.022
973.90	.229	.023
971.90	.224	.027
969.90	.220	.042
967.90	.214	.037
965.90	.205	.031
963.90	.196	.033
961.90	.183	.032
959.90	.175	.021
957.90	.166	.019
955.90	.155	.016
953.90	.149	.016
951.90	.145	.010
949.90	.140	.002
947.90	.127	-.002
945.90	.115	.004
943.90	.112	.002
941.90	.114	-.011
939.90	.110	-.020

937.90	.103	-.019
935.90	.098	-.022
933.90	.085	-.030
931.90	.082	-.031
929.90	.078	-.030
927.90	.071	-.033
925.90	.067	-.042
923.90	.077	-.032
921.90	.068	-.024
919.90	.064	-.018
917.90	.061	-.022
915.90	.064	-.036
913.90	.043	-.005
911.90	.026	.007
909.90	.020	.013
907.90	.011	.014
905.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = .48
B-B DEFLECTION = .09
TOP ELEVATION OF TUBE = 1041.90

1 PLOT OF 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-3
PLOTS-- A-A = *, B-B = X



1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE JUNE 22, 1987
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 67 B-B MEAN BIAS = 72 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	.058	-.004
999.20	.088	-.049
997.20	.046	-.031
995.20	-.003	.016
993.20	-.016	.049
991.20	-.008	.044
989.20	.013	.035
987.20	.026	.041
985.20	.031	.050
983.20	.026	.053
981.20	.034	.061
979.20	.035	.052
977.20	.024	.029
975.20	.023	.035
973.20	.033	.036
971.20	.034	.027
969.20	.038	.020
967.20	.036	.025
965.20	.033	.013
963.20	.037	.011
961.20	.038	.001
959.20	.042	-.002
957.20	.048	.012
955.20	.046	.026
953.20	.045	.022
951.20	.044	.030
949.20	.055	.007
947.20	.045	.006
945.20	.038	.006
943.20	.043	.006
941.20	.043	.013
939.20	.038	.016
937.20	.033	.020
935.20	.029	.015
933.20	.019	.014
931.20	.020	.016
929.20	.019	.017
927.20	.011	.015
925.20	.010	.021
923.20	.007	.028
921.20	-.005	.028
919.20	-.005	.039
917.20	-.013	.041
915.20	-.004	.031
913.20	-.003	.013
911.20	.004	-.002
909.20	.000	.000

1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE JUNE 22, 1987
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 67 B-B MEAN BIAS = 72 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	.058	-.004
999.20	.088	-.049
997.20	.046	-.031
995.20	-.003	.016
993.20	-.016	.049
991.20	-.008	.044
989.20	.013	.035
987.20	.026	.041
985.20	.031	.050
983.20	.026	.053
981.20	.034	.061
979.20	.035	.052
977.20	.024	.029
975.20	.023	.035
973.20	.033	.036
971.20	.034	.027
969.20	.038	.020
967.20	.036	.025
965.20	.033	.013
963.20	.037	.011
961.20	.038	.001
959.20	.042	-.002
957.20	.048	.012
955.20	.046	.026
953.20	.045	.022
951.20	.044	.030
949.20	.055	.007
947.20	.045	.006
945.20	.038	.006
943.20	.043	.006
941.20	.043	.013
939.20	.038	.016
937.20	.033	.020
935.20	.029	.015
933.20	.019	.014
931.20	.020	.016
929.20	.019	.017
927.20	.011	.015
925.20	.010	.021
923.20	.007	.028
921.20	-.005	.028
919.20	-.005	.039
917.20	-.013	.041
915.20	-.004	.031
913.20	-.003	.013
911.20	.004	-.002
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .03
B-B DEFLECTION = .04
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1001.20         .        .        .        .        .        X*       .        .        .        .        .
 999.20         .        .        .        .        .        X*       .        .        .        .        .
 997.20         .        .        .        .        .        X        .        .        .        .        .
 995.20         .        .        .        .        .        X        .        .        .        .        .
 993.20         .        .        .        .        .        X        .        .        .        .        .
 991.20         .        .        .        .        .        X        .        .        .        .        .
 989.20         .        .        .        .        .        X        .        .        .        .        .
 987.20         .        .        .        .        .        X        .        .        .        .        .
 985.20         .        .        .        .        .        X        .        .        .        .        .
 983.20         .        .        .        .        .        *X       .        .        .        .        .
 981.20         .        .        .        .        .        *X       .        .        .        .        .
 979.20         .        .        .        .        .        *X       .        .        .        .        .
 977.20         .        .        .        .        .        X        .        .        .        .        .
 975.20         .        .        .        .        .        X        .        .        .        .        .
 973.20         .        .        .        .        .        X        .        .        .        .        .
 971.20         .        .        .        .        .        X        .        .        .        .        .
 969.20         .        .        .        .        .        X        .        .        .        .        .
 967.20         .        .        .        .        .        X        .        .        .        .        .
 965.20         .        .        .        .        .        X        .        .        .        .        .
 963.20         .        .        .        .        .        X        .        .        .        .        .
 961.20         .        .        .        .        .        X        .        .        .        .        .
 959.20         .        .        .        .        .        X        .        .        .        .        .
 957.20         .        .        .        .        .        X        .        .        .        .        .
 955.20         .        .        .        .        .        X        .        .        .        .        .
 953.20         .        .        .        .        .        X        .        .        .        .        .
 951.20         .        .        .        .        .        X        .        .        .        .        .
 949.20         .        .        .        .        .        X*       .        .        .        .        .
 947.20         .        .        .        .        .        X        .        .        .        .        .
 945.20         .        .        .        .        .        X        .        .        .        .        .
 943.20         .        .        .        .        .        X        .        .        .        .        .
 941.20         .        .        .        .        .        X        .        .        .        .        .
 939.20         .        .        .        .        .        X        .        .        .        .        .
 937.20         .        .        .        .        .        X        .        .        .        .        .
 935.20         .        .        .        .        .        X        .        .        .        .        .
 933.20         .        .        .        .        .        X        .        .        .        .        .
 931.20         .        .        .        .        .        X        .        .        .        .        .
 929.20         .        .        .        .        .        X        .        .        .        .        .
 927.20         .        .        .        .        .        X        .        .        .        .        .
 925.20         .        .        .        .        .        X        .        .        .        .        .
 923.20         .        .        .        .        .        X        .        .        .        .        .
 921.20         .        .        .        .        .        X        .        .        .        .        .
 919.20         .        .        .        .        .        X        .        .        .        .        .
 917.20         .        .        .        .        .        X        .        .        .        .        .
 915.20         .        .        .        .        .        X        .        .        .        .        .
 913.20         .        .        .        .        .        X        .        .        .        .        .
 911.20         .        .        .        .        .        X        .        .        .        .        .
 909.20         .        .        .        .        .        X        .        .        .        .        .
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1**** 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS
DATE JAN. 23, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 111 B-B MEAN BIAS = 25 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

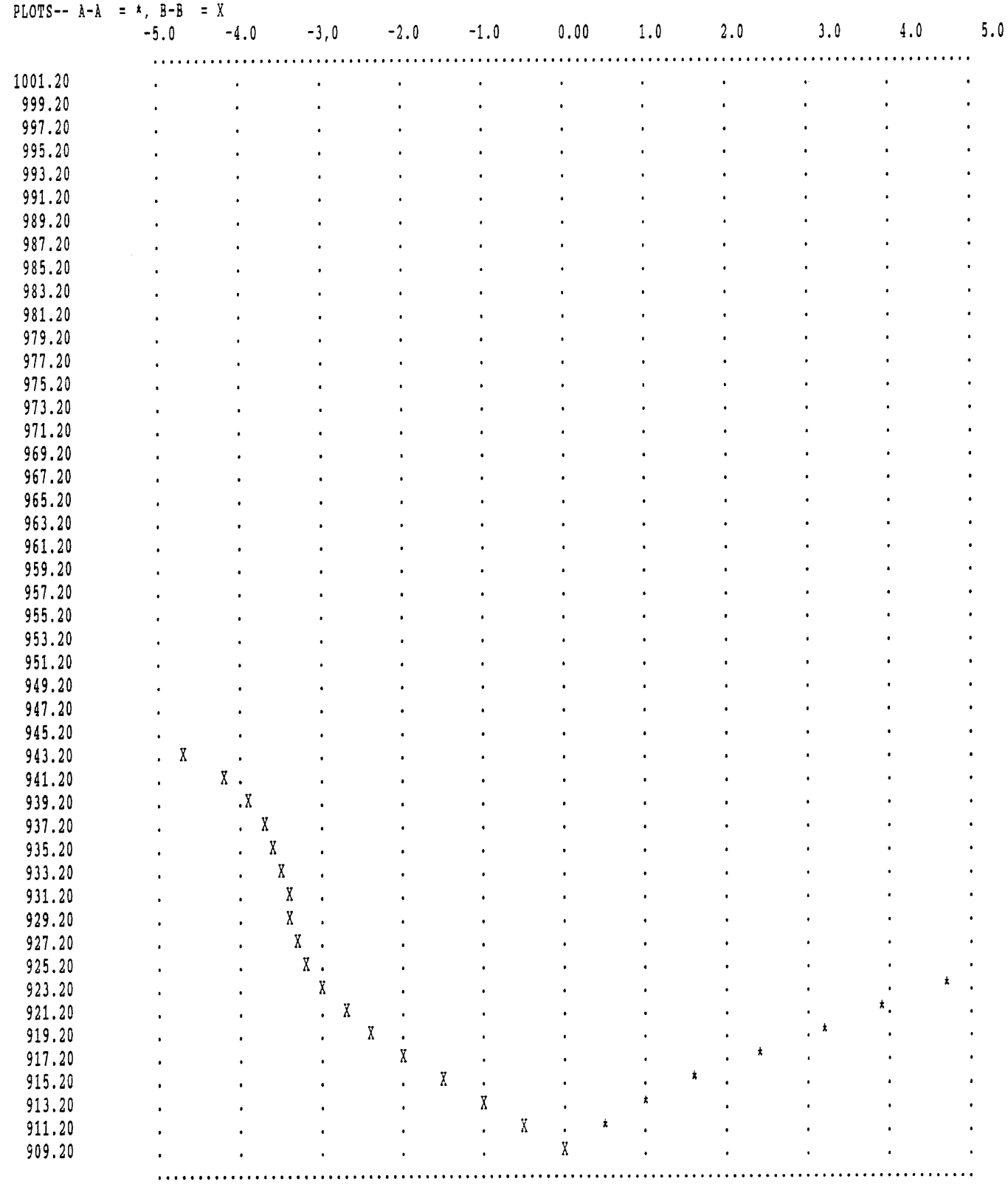
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	17.881	-10.670
999.20	17.723	-10.143
997.20	17.592	-9.728
995.20	17.479	-9.482
993.20	17.362	-9.322
991.20	17.263	-9.112
989.20	17.188	-8.896
987.20	17.109	-8.720
985.20	16.915	-8.642
983.20	16.515	-8.683
981.20	15.914	-8.854
979.20	15.308	-9.005
977.20	14.914	-8.972
975.20	14.569	-8.891
973.20	14.142	-8.803
971.20	13.759	-8.716
969.20	13.399	-8.497
967.20	13.015	-8.297
965.20	12.626	-8.119
963.20	12.268	-7.907
961.20	11.926	-7.727
959.20	11.522	-7.577
957.20	11.162	-7.348
955.20	10.851	-7.079
953.20	10.516	-6.747
951.20	10.184	-6.371
949.20	9.872	-5.950
947.20	9.505	-5.456
945.20	9.164	-5.048
943.20	8.987	-4.651
941.20	8.915	-4.250
939.20	8.822	-3.933
937.20	8.624	-3.697
935.20	8.332	-3.557
933.20	7.911	-3.488
931.20	7.423	-3.448
929.20	6.861	-3.414
927.20	6.206	-3.347
925.20	5.468	-3.205
923.20	4.704	-2.971
921.20	3.918	-2.723
919.20	3.188	-2.413
917.20	2.408	-1.989
915.20	1.626	-1.481
913.20	.959	-.959
911.20	.479	-.474
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = 18.04
B-B DEFLECTION = -11.20
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4 INITIAL READINGS

PLOTS-- A-A = *, B-B = X

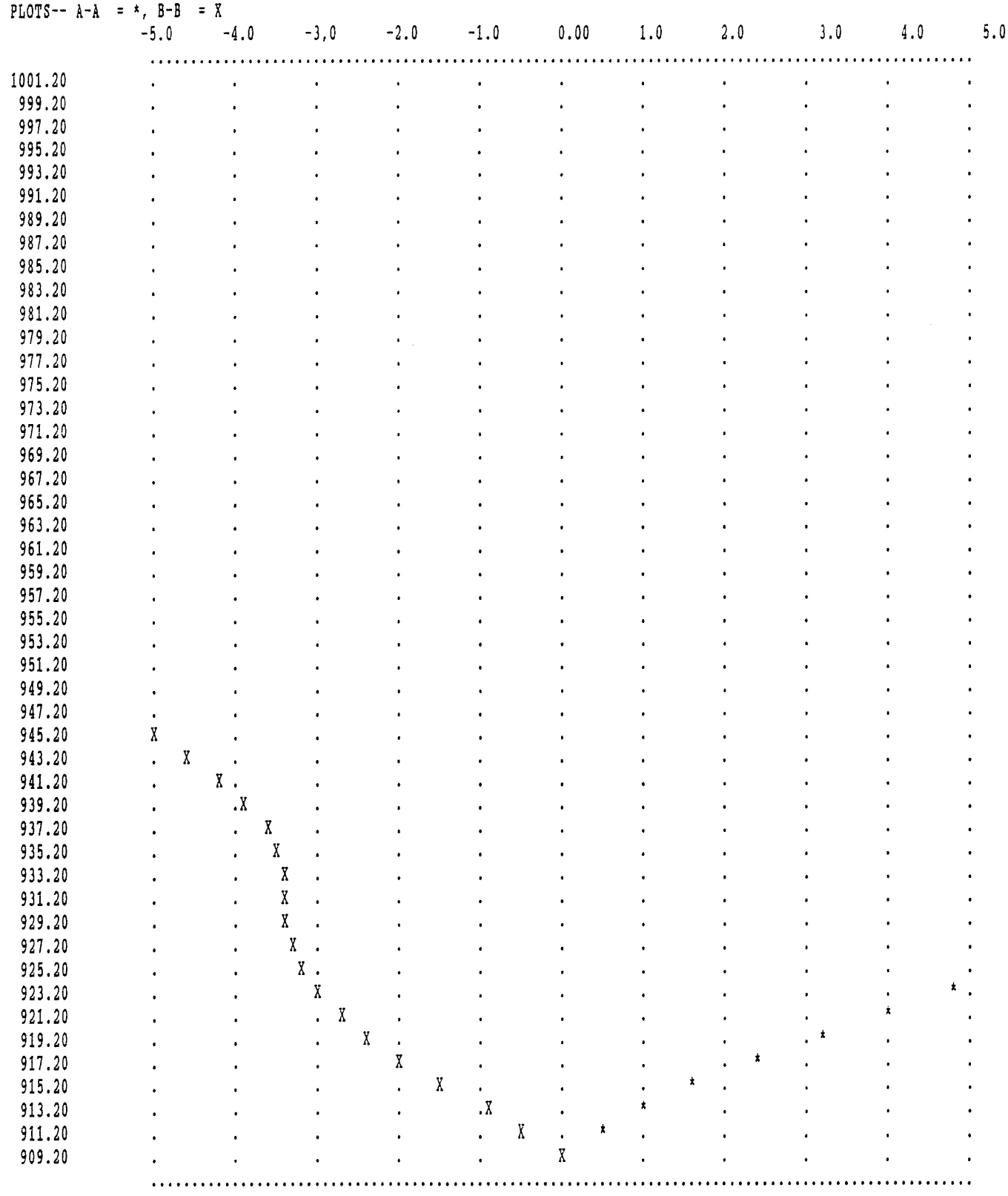


1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE APR. 1, 1986
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 91 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	18.230	-10.579
999.20	18.046	-10.058
997.20	17.903	-9.640
995.20	17.777	-9.379
993.20	17.653	-9.224
991.20	17.547	-9.019
989.20	17.468	-8.807
987.20	17.389	-8.640
985.20	17.192	-8.558
983.20	16.775	-8.601
981.20	16.163	-8.780
979.20	15.554	-8.932
977.20	15.154	-8.901
975.20	14.803	-8.815
973.20	14.373	-8.722
971.20	13.987	-8.630
969.20	13.623	-8.399
967.20	13.231	-8.207
965.20	12.836	-8.021
963.20	12.471	-7.807
961.20	12.122	-7.637
959.20	11.714	-7.486
957.20	11.351	-7.255
955.20	11.032	-6.991
953.20	10.690	-6.661
951.20	10.349	-6.302
949.20	10.035	-5.872
947.20	9.653	-5.381
945.20	9.308	-4.968
943.20	9.131	-4.569
941.20	9.055	-4.172
939.20	8.953	-3.866
937.20	8.760	-3.634
935.20	8.459	-3.503
933.20	8.024	-3.449
931.20	7.528	-3.419
929.20	6.956	-3.393
927.20	6.290	-3.328
925.20	5.537	-3.189
923.20	4.760	-2.962
921.20	3.964	-2.707
919.20	3.226	-2.401
917.20	2.432	-1.972
915.20	1.648	-1.465
913.20	.980	-.938
911.20	.496	-.460
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = 18.41
B-B DEFLECTION = -11.10
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X

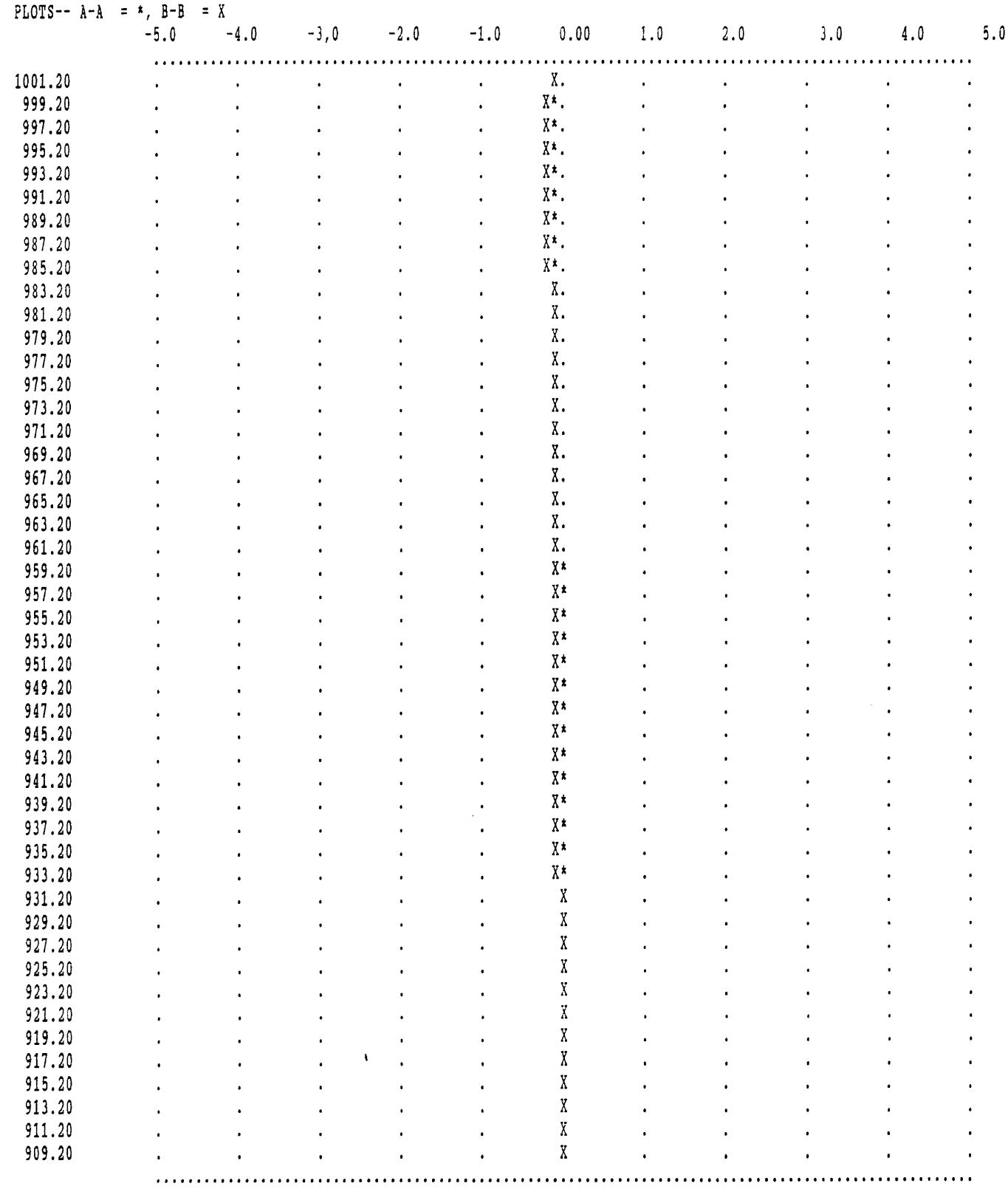


1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE MAY 13, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 79 B-B MEAN BIAS = 16 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.122	-.089
999.20	-.120	-.174
997.20	-.124	-.172
995.20	-.121	-.166
993.20	-.119	-.156
991.20	-.115	-.157
989.20	-.110	-.158
987.20	-.106	-.155
985.20	-.102	-.151
983.20	-.098	-.150
981.20	-.094	-.146
979.20	-.089	-.143
977.20	-.082	-.146
975.20	-.077	-.142
973.20	-.073	-.144
971.20	-.068	-.137
969.20	-.065	-.140
967.20	-.061	-.138
965.20	-.058	-.141
963.20	-.054	-.145
961.20	-.050	-.137
959.20	-.046	-.130
957.20	-.041	-.120
955.20	-.038	-.103
953.20	-.035	-.103
951.20	-.031	-.098
949.20	-.028	-.100
947.20	-.029	-.100
945.20	-.027	-.097
943.20	-.022	-.098
941.20	-.018	-.086
939.20	-.019	-.077
937.20	-.019	-.070
935.20	-.017	-.067
933.20	-.017	-.064
931.20	-.015	-.050
929.20	-.013	-.046
927.20	-.014	-.046
925.20	-.012	-.041
923.20	-.013	-.030
921.20	-.013	-.023
919.20	-.011	-.014
917.20	-.012	-.011
915.20	-.010	-.016
913.20	-.007	-.015
911.20	-.003	-.010
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.12
B-B DEFLECTION = .00
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X



1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE JUNE 16, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 82 B-B MEAN BIAS = 35 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.081	-.005
999.20	-.082	-.106
997.20	-.091	-.098
995.20	-.094	-.085
993.20	-.098	-.081
991.20	-.094	-.080
989.20	-.087	-.082
987.20	-.080	-.088
985.20	-.086	-.089
983.20	-.082	-.087
981.20	-.079	-.082
979.20	-.079	-.088
977.20	-.073	-.087
975.20	-.064	-.088
973.20	-.061	-.080
971.20	-.058	-.087
969.20	-.055	-.092
967.20	-.052	-.089
965.20	-.051	-.095
963.20	-.048	-.091
961.20	-.046	-.086
959.20	-.041	-.085
957.20	-.035	-.079
955.20	-.032	-.068
953.20	-.028	-.069
951.20	-.024	-.063
949.20	-.019	-.073
947.20	-.018	-.068
945.20	-.017	-.070
943.20	-.014	-.069
941.20	-.013	-.062
939.20	-.010	-.052
937.20	-.007	-.049
935.20	-.003	-.047
933.20	.000	-.046
931.20	.002	-.038
929.20	-.005	-.028
927.20	-.015	-.021
925.20	-.014	-.015
923.20	-.014	-.007
921.20	-.016	.007
919.20	-.016	.023
917.20	-.017	.019
915.20	-.014	.013
913.20	-.009	.008
911.20	-.004	.000
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.08
B-B DEFLECTION = .10
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X

```
                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1001.20         .        .        .        .        .        *X       .        .        .        .        .
 999.20         .        .        .        .        .        X.       .        .        .        .        .
 997.20         .        .        .        .        .        X.       .        .        .        .        .
 995.20         .        .        .        .        .        X.       .        .        .        .        .
 993.20         .        .        .        .        .        X.       .        .        .        .        .
 991.20         .        .        .        .        .        X.       .        .        .        .        .
 989.20         .        .        .        .        .        X.       .        .        .        .        .
 987.20         .        .        .        .        .        X.       .        .        .        .        .
 985.20         .        .        .        .        .        X.       .        .        .        .        .
 983.20         .        .        .        .        .        X.       .        .        .        .        .
 981.20         .        .        .        .        .        X.       .        .        .        .        .
 979.20         .        .        .        .        .        X.       .        .        .        .        .
 977.20         .        .        .        .        .        X.       .        .        .        .        .
 975.20         .        .        .        .        .        X.       .        .        .        .        .
 973.20         .        .        .        .        .        X.       .        .        .        .        .
 971.20         .        .        .        .        .        X.       .        .        .        .        .
 969.20         .        .        .        .        .        X.       .        .        .        .        .
 967.20         .        .        .        .        .        X.       .        .        .        .        .
 965.20         .        .        .        .        .        X.       .        .        .        .        .
 963.20         .        .        .        .        .        X*       .        .        .        .        .
 961.20         .        .        .        .        .        X*       .        .        .        .        .
 959.20         .        .        .        .        .        X*       .        .        .        .        .
 957.20         .        .        .        .        .        X*       .        .        .        .        .
 955.20         .        .        .        .        .        X*       .        .        .        .        .
 953.20         .        .        .        .        .        X*       .        .        .        .        .
 951.20         .        .        .        .        .        X*       .        .        .        .        .
 949.20         .        .        .        .        .        X*       .        .        .        .        .
 947.20         .        .        .        .        .        X*       .        .        .        .        .
 945.20         .        .        .        .        .        X*       .        .        .        .        .
 943.20         .        .        .        .        .        X*       .        .        .        .        .
 941.20         .        .        .        .        .        X*       .        .        .        .        .
 939.20         .        .        .        .        .        X*       .        .        .        .        .
 937.20         .        .        .        .        .         X       .        .        .        .        .
 935.20         .        .        .        .        .         X       .        .        .        .        .
 933.20         .        .        .        .        .         X       .        .        .        .        .
 931.20         .        .        .        .        .         X       .        .        .        .        .
 929.20         .        .        .        .        .         X       .        .        .        .        .
 927.20         .        .        .        .        .         X       .        .        .        .        .
 925.20         .        .        .        .        .         X       .        .        .        .        .
 923.20         .        .        .        .        .         X       .        .        .        .        .
 921.20         .        .        .        .        .         X       .        .        .        .        .
 919.20         .        .        .        .        .         X       .        .        .        .        .
 917.20         .        .        .        .        .         X       .        .        .        .        .
 915.20         .        .        .        .        .         X       .        .        .        .        .
 913.20         .        .        .        .        .         X       .        .        .        .        .
 911.20         .        .        .        .        .         X       .        .        .        .        .
 909.20         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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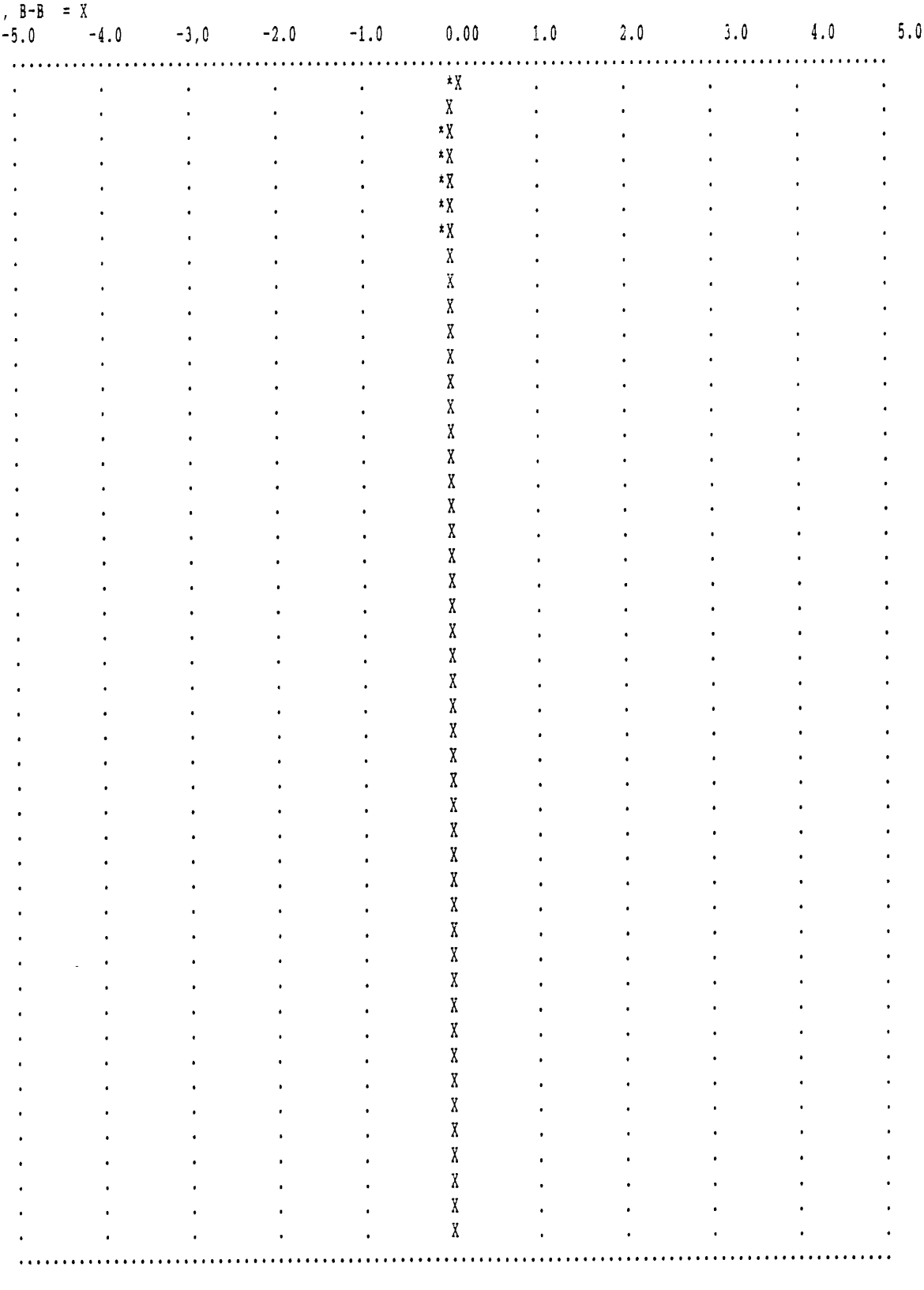
1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE JULY 16, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 87 B-B MEAN BIAS = 36 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.033	.094
999.20	-.038	.033
997.20	-.052	.031
995.20	-.056	.034
993.20	-.061	.037
991.20	-.059	.035
989.20	-.053	.034
987.20	-.049	.032
985.20	-.043	.030
983.20	-.040	.029
981.20	-.038	.028
979.20	-.040	.023
977.20	-.034	.026
975.20	-.027	.024
973.20	-.028	.019
971.20	-.026	.016
969.20	-.020	.010
967.20	-.019	.017
965.20	-.019	.013
963.20	-.017	.012
961.20	-.017	.021
959.20	-.014	.018
957.20	-.008	.029
955.20	-.006	.033
953.20	-.002	.036
951.20	-.002	.048
949.20	.005	.044
947.20	.003	.047
945.20	.005	.046
943.20	.011	.049
941.20	.014	.043
939.20	.014	.043
937.20	.015	.044
935.20	.015	.043
933.20	.013	.041
931.20	.013	.041
929.20	.013	.043
927.20	.009	.041
925.20	.007	.040
923.20	.004	.041
921.20	-.001	.039
919.20	-.004	.044
917.20	-.007	.050
915.20	-.006	.038
913.20	-.003	.021
911.20	.000	.004
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.03
B-B DEFLECTION = .15
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X



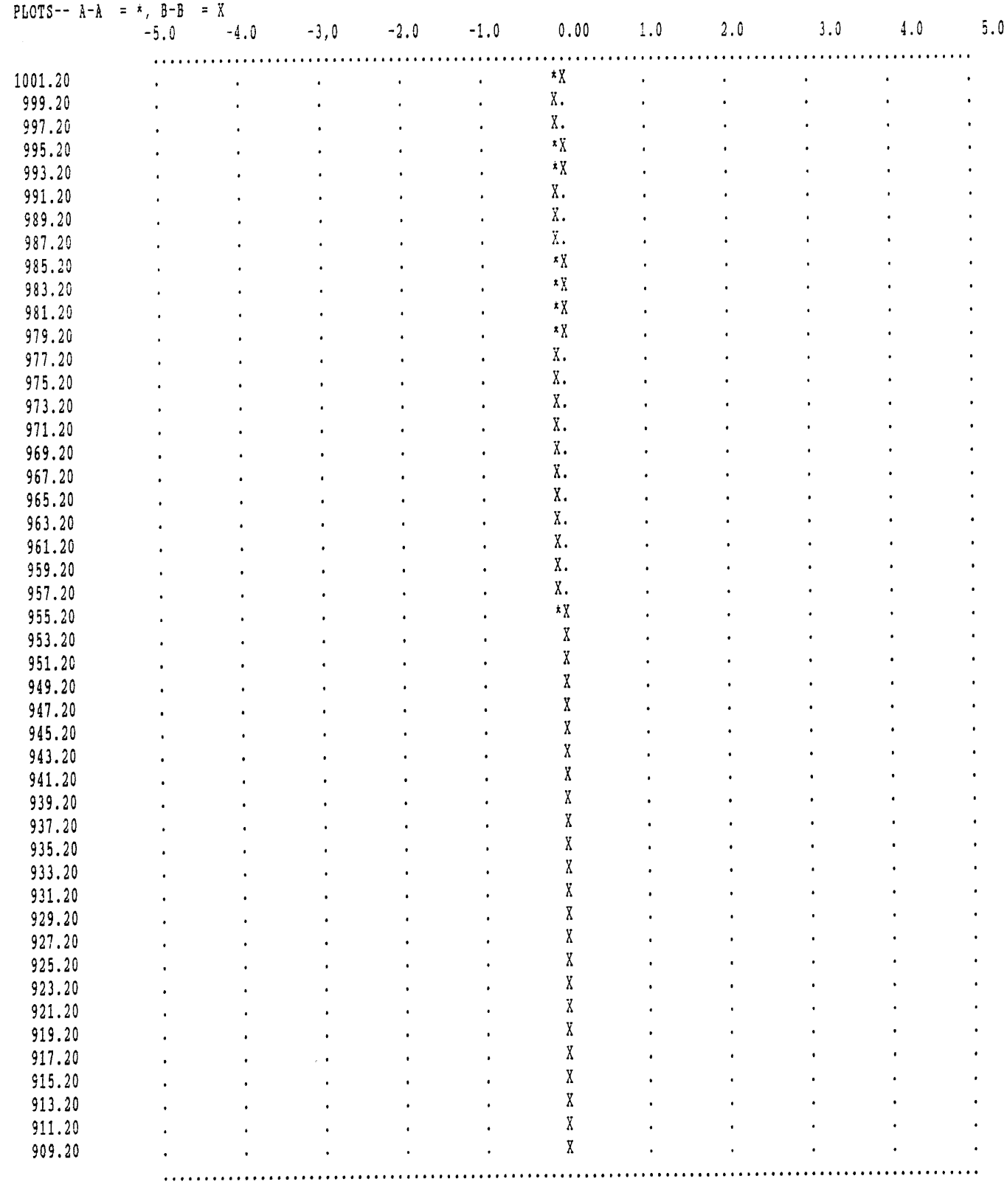
1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE AUG. 19, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 90 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.055	.019
999.20	-.051	-.065
997.20	-.068	-.065
995.20	-.074	-.046
993.20	-.080	-.047
991.20	-.082	-.053
989.20	-.077	-.053
987.20	-.073	-.051
985.20	-.067	-.043
983.20	-.067	-.044
981.20	-.067	-.040
979.20	-.074	-.046
977.20	-.071	-.056
975.20	-.065	-.056
973.20	-.069	-.057
971.20	-.073	-.069
969.20	-.069	-.072
967.20	-.065	-.062
965.20	-.067	-.071
963.20	-.063	-.071
961.20	-.062	-.066
959.20	-.059	-.071
957.20	-.054	-.062
955.20	-.052	-.044
953.20	-.048	-.034
951.20	-.049	-.022
949.20	-.038	-.037
947.20	-.040	-.035
945.20	-.042	-.039
943.20	-.039	-.042
941.20	-.039	-.043
939.20	-.037	-.035
937.20	-.034	-.029
935.20	-.030	-.033
933.20	-.029	-.037
931.20	-.026	-.034
929.20	-.023	-.030
927.20	-.022	-.027
925.20	-.018	-.022
923.20	-.018	-.016
921.20	-.021	-.011
919.20	-.019	-.005
917.20	-.018	.001
915.20	-.013	-.002
913.20	-.012	-.007
911.20	-.006	-.006
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.06
B-B DEFLECTION = .10
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X



1**** 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE SEP. 22, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 90 B-B MEAN BIAS = 29 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.089	-.053
999.20	-.073	-.143
997.20	-.088	-.148
995.20	-.097	-.124
993.20	-.100	-.113
991.20	-.098	-.110
989.20	-.092	-.114
987.20	-.085	-.113
985.20	-.079	-.107
983.20	-.079	-.092
981.20	-.077	-.083
979.20	-.080	-.085
977.20	-.072	-.078
975.20	-.065	-.079
973.20	-.068	-.083
971.20	-.067	-.085
969.20	-.062	-.089
967.20	-.059	-.079
965.20	-.062	-.086
963.20	-.057	-.084
961.20	-.056	-.086
959.20	-.055	-.091
957.20	-.048	-.082
955.20	-.046	-.064
953.20	-.044	-.064
951.20	-.046	-.049
949.20	-.036	-.063
947.20	-.039	-.059
945.20	-.038	-.058
943.20	-.033	-.061
941.20	-.029	-.050
939.20	-.028	-.050
937.20	-.028	-.052
935.20	-.025	-.055
933.20	-.028	-.060
931.20	-.025	-.053
929.20	-.023	-.053
927.20	-.023	-.050
925.20	-.021	-.041
923.20	-.021	-.026
921.20	-.025	-.017
919.20	-.022	-.005
917.20	-.023	.000
915.20	-.017	-.003
913.20	-.013	-.009
911.20	-.005	-.010
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.10
B-B DEFLECTION = .04
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0     0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1001.20         .        .        .        .        .        X.       .        .        .        .        .
 999.20         .        .        .        .        .        X.       .        .        .        .        .
 997.20         .        .        .        .        .        X.       .        .        .        .        .
 995.20         .        .        .        .        .        X.       .        .        .        .        .
 993.20         .        .        .        .        .        X.       .        .        .        .        .
 991.20         .        .        .        .        .        X.       .        .        .        .        .
 989.20         .        .        .        .        .        X.       .        .        .        .        .
 987.20         .        .        .        .        .        X.       .        .        .        .        .
 985.20         .        .        .        .        .        X.       .        .        .        .        .
 983.20         .        .        .        .        .        X.       .        .        .        .        .
 981.20         .        .        .        .        .        X.       .        .        .        .        .
 979.20         .        .        .        .        .        X.       .        .        .        .        .
 977.20         .        .        .        .        .        X.       .        .        .        .        .
 975.20         .        .        .        .        .        X.       .        .        .        .        .
 973.20         .        .        .        .        .        X.       .        .        .        .        .
 971.20         .        .        .        .        .        X.       .        .        .        .        .
 969.20         .        .        .        .        .        X.       .        .        .        .        .
 967.20         .        .        .        .        .        X.       .        .        .        .        .
 965.20         .        .        .        .        .        X.       .        .        .        .        .
 963.20         .        .        .        .        .        X.       .        .        .        .        .
 961.20         .        .        .        .        .        X.       .        .        .        .        .
 959.20         .        .        .        .        .        X.       .        .        .        .        .
 957.20         .        .        .        .        .        X*       .        .        .        .        .
 955.20         .        .        .        .        .        X*       .        .        .        .        .
 953.20         .        .        .        .        .        X*       .        .        .        .        .
 951.20         .        .        .        .        .         X       .        .        .        .        .
 949.20         .        .        .        .        .        X*       .        .        .        .        .
 947.20         .        .        .        .        .        X*       .        .        .        .        .
 945.20         .        .        .        .        .        X*       .        .        .        .        .
 943.20         .        .        .        .        .        X*       .        .        .        .        .
 941.20         .        .        .        .        .         X       .        .        .        .        .
 939.20         .        .        .        .        .         X       .        .        .        .        .
 937.20         .        .        .        .        .        X*       .        .        .        .        .
 935.20         .        .        .        .        .        X*       .        .        .        .        .
 933.20         .        .        .        .        .        X*       .        .        .        .        .
 931.20         .        .        .        .        .        X*       .        .        .        .        .
 929.20         .        .        .        .        .        X*       .        .        .        .        .
 927.20         .        .        .        .        .         X       .        .        .        .        .
 925.20         .        .        .        .        .         X       .        .        .        .        .
 923.20         .        .        .        .        .         X       .        .        .        .        .
 921.20         .        .        .        .        .         X       .        .        .        .        .
 919.20         .        .        .        .        .         X       .        .        .        .        .
 917.20         .        .        .        .        .         X       .        .        .        .        .
 915.20         .        .        .        .        .         X       .        .        .        .        .
 913.20         .        .        .        .        .         X       .        .        .        .        .
 911.20         .        .        .        .        .         X       .        .        .        .        .
 909.20         .        .        .        .        .         X       .        .        .        .        .
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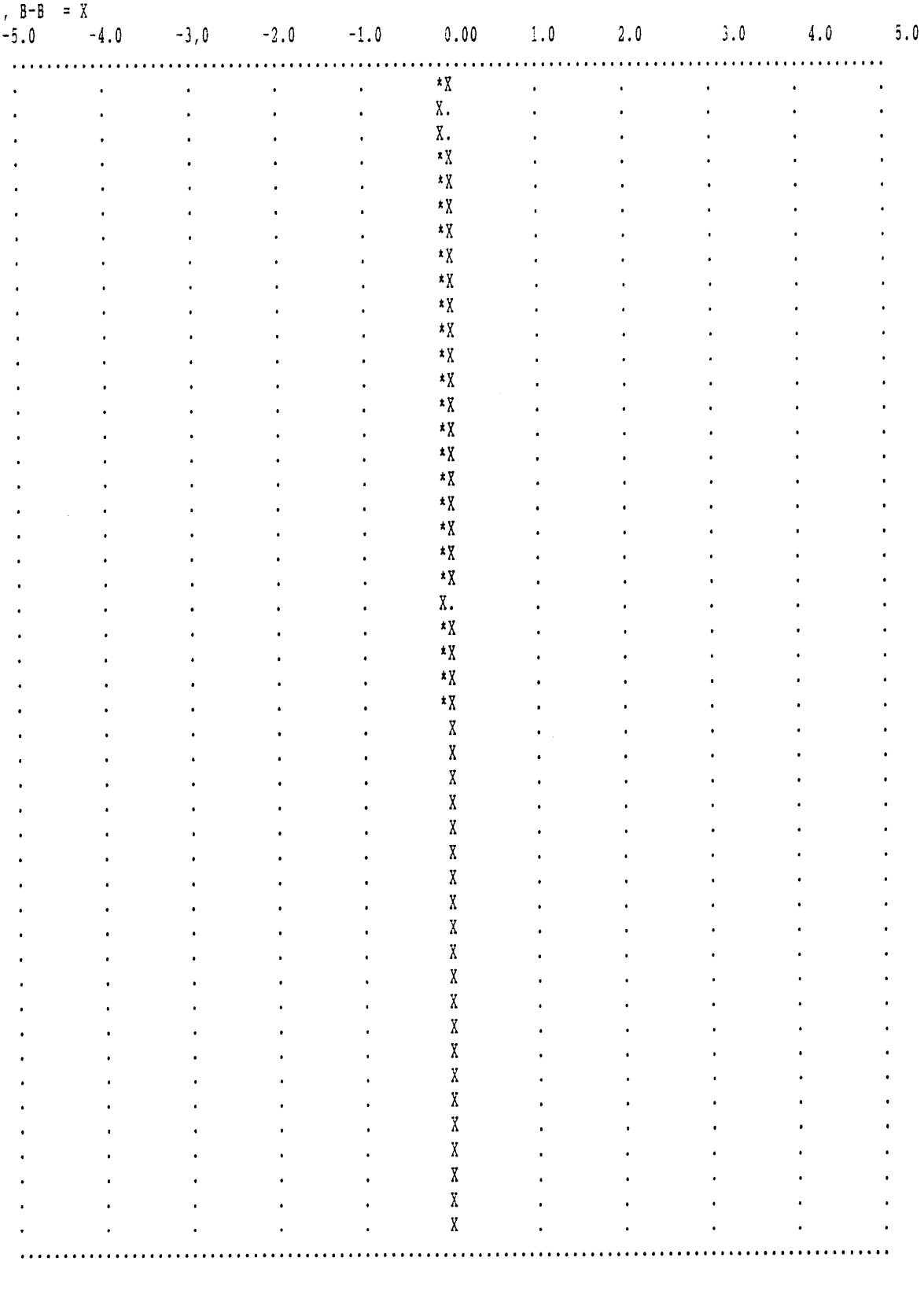
1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA VT SI-85-4
DATE NOV. 8, 1986
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 85 B-B MEAN BIAS = 26 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.079	.046
999.20	-.059	-.056
997.20	-.083	-.055
995.20	-.096	-.027
993.20	-.098	-.009
991.20	-.098	-.013
989.20	-.092	-.019
987.20	-.089	-.017
985.20	-.084	-.011
983.20	-.084	-.007
981.20	-.080	-.002
979.20	-.083	-.013
977.20	-.077	-.016
975.20	-.072	-.016
973.20	-.074	-.022
971.20	-.075	-.035
969.20	-.071	-.034
967.20	-.070	-.031
965.20	-.072	-.040
963.20	-.067	-.044
961.20	-.067	-.050
959.20	-.065	-.052
957.20	-.058	-.045
955.20	-.056	-.025
953.20	-.054	-.025
951.20	-.056	-.009
949.20	-.044	-.019
947.20	-.046	-.018
945.20	-.046	-.024
943.20	-.041	-.019
941.20	-.038	-.014
939.20	-.039	-.015
937.20	-.038	-.013
935.20	-.038	-.014
933.20	-.040	-.022
931.20	-.037	-.018
929.20	-.034	-.016
927.20	-.035	-.014
925.20	-.032	-.006
923.20	-.031	-.001
921.20	-.034	.001
919.20	-.031	.010
917.20	-.030	.015
915.20	-.022	.016
913.20	-.016	.007
911.20	-.006	.004
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.10
B-B DEFLECTION = .15
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA VT SI-85-4
PLOTS-- A-A = *, B-B = X



1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE MAY 8, 1987
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 93 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

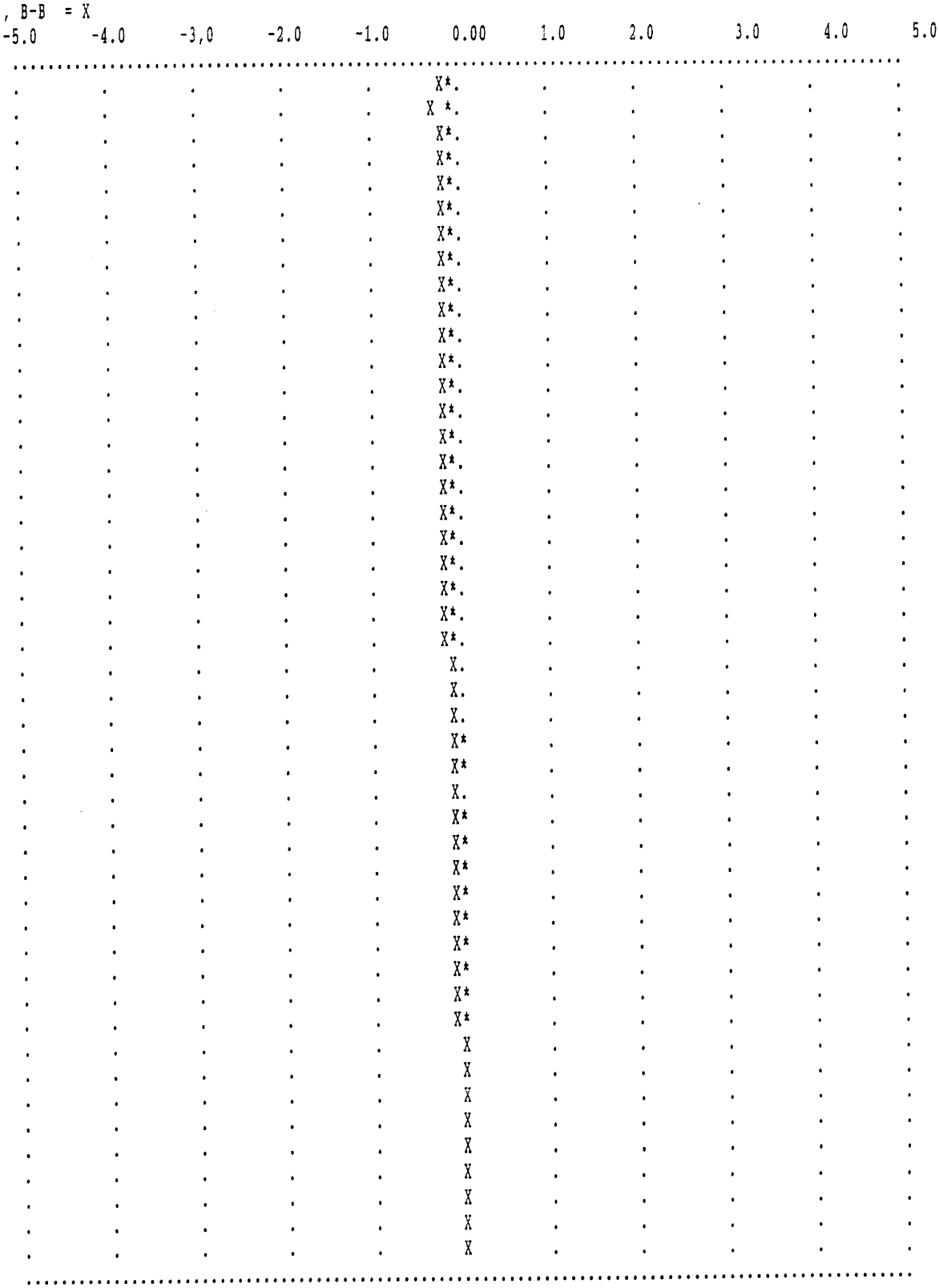
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	-.104	-.180
999.20	-.096	-.252
997.20	-.121	-.249
995.20	-.141	-.223
993.20	-.142	-.205
991.20	-.136	-.205
989.20	-.125	-.209
987.20	-.118	-.207
985.20	-.112	-.203
983.20	-.112	-.189
981.20	-.109	-.178
979.20	-.109	-.173
977.20	-.099	-.169
975.20	-.093	-.164
973.20	-.094	-.178
971.20	-.092	-.184
969.20	-.086	-.181
967.20	-.084	-.169
965.20	-.083	-.172
963.20	-.076	-.173
961.20	-.074	-.173
959.20	-.070	-.179
957.20	-.059	-.168
955.20	-.056	-.142
953.20	-.054	-.126
951.20	-.052	-.104
949.20	-.040	-.113
947.20	-.047	-.098
945.20	-.050	-.093
943.20	-.041	-.085
941.20	-.037	-.084
939.20	-.039	-.082
937.20	-.043	-.073
935.20	-.044	-.079
933.20	-.050	-.083
931.20	-.043	-.074
929.20	-.041	-.067
927.20	-.043	-.064
925.20	-.040	-.049
923.20	-.040	-.039
921.20	-.047	-.029
919.20	-.042	-.019
917.20	-.046	.000
915.20	-.030	.001
913.20	-.022	-.005
911.20	-.009	-.010
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -.11
B-B DEFLECTION = -.11
TOP ELEVATION OF TUBE = 1003.20

1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4

PLOTS-- A-A = *, B-B = X

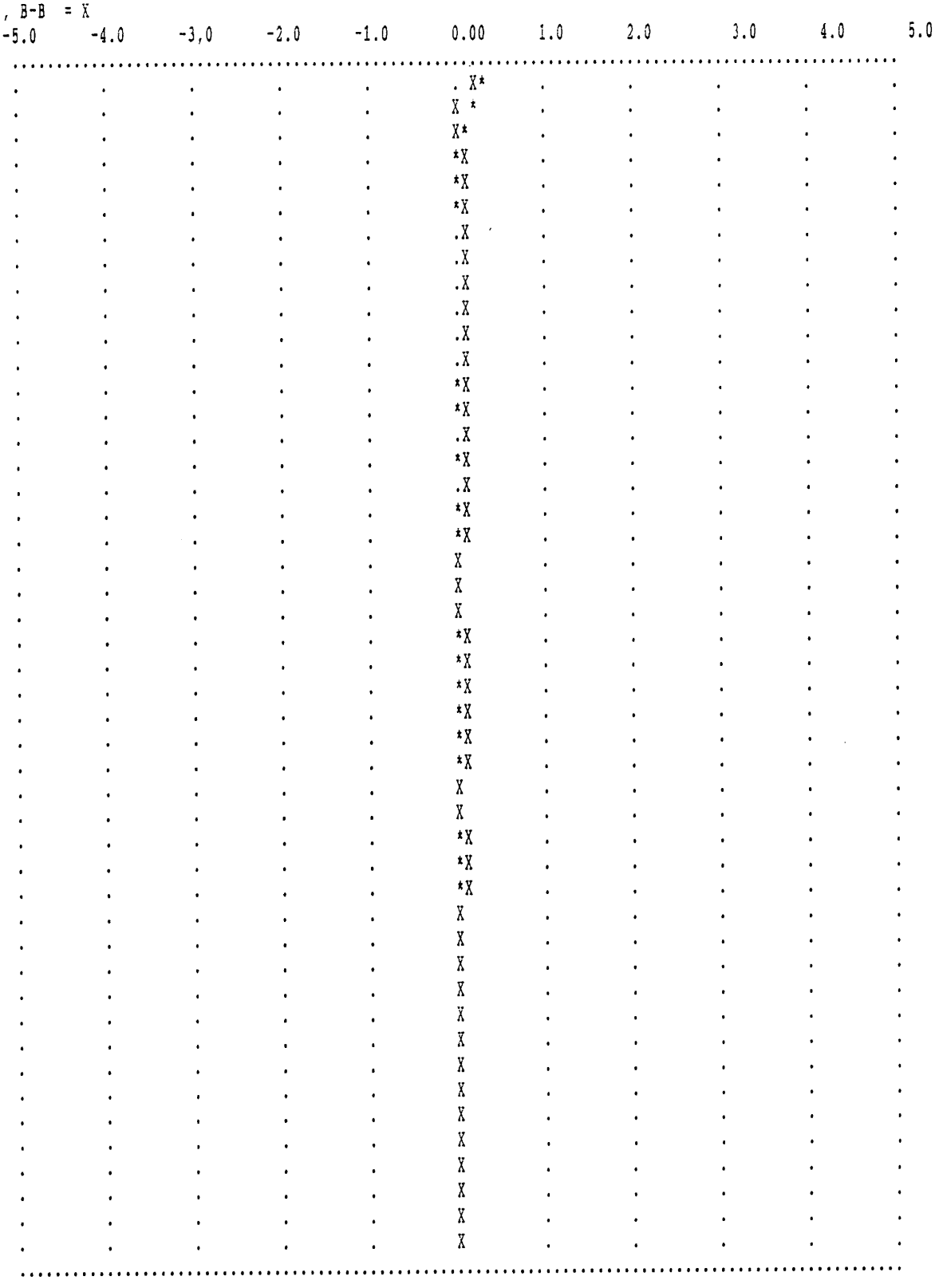


1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE OCT. 6, 1987
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 3 B-B MEAN BIAS = -8 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	.255	.199
999.20	.181	.023
997.20	.110	.003
995.20	.043	.052
993.20	.019	.097
991.20	.027	.090
989.20	.050	.077
987.20	.062	.076
985.20	.062	.078
983.20	.053	.089
981.20	.059	.101
979.20	.062	.088
977.20	.048	.052
975.20	.043	.050
973.20	.050	.053
971.20	.049	.057
969.20	.051	.053
967.20	.046	.063
965.20	.040	.058
963.20	.042	.049
961.20	.038	.035
959.20	.040	.043
957.20	.049	.055
955.20	.047	.074
953.20	.043	.073
951.20	.035	.084
949.20	.045	.061
947.20	.031	.057
945.20	.022	.046
943.20	.026	.044
941.20	.028	.053
939.20	.020	.051
937.20	.013	.061
935.20	.010	.044
933.20	-.001	.038
931.20	.005	.045
929.20	.005	.046
927.20	.001	.044
925.20	.002	.041
923.20	-.002	.044
921.20	-.013	.040
919.20	-.011	.040
917.20	-.021	.043
915.20	-.010	.034
913.20	-.010	.012
911.20	-.004	-.004
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .33
B-B DEFLECTION = .38
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X

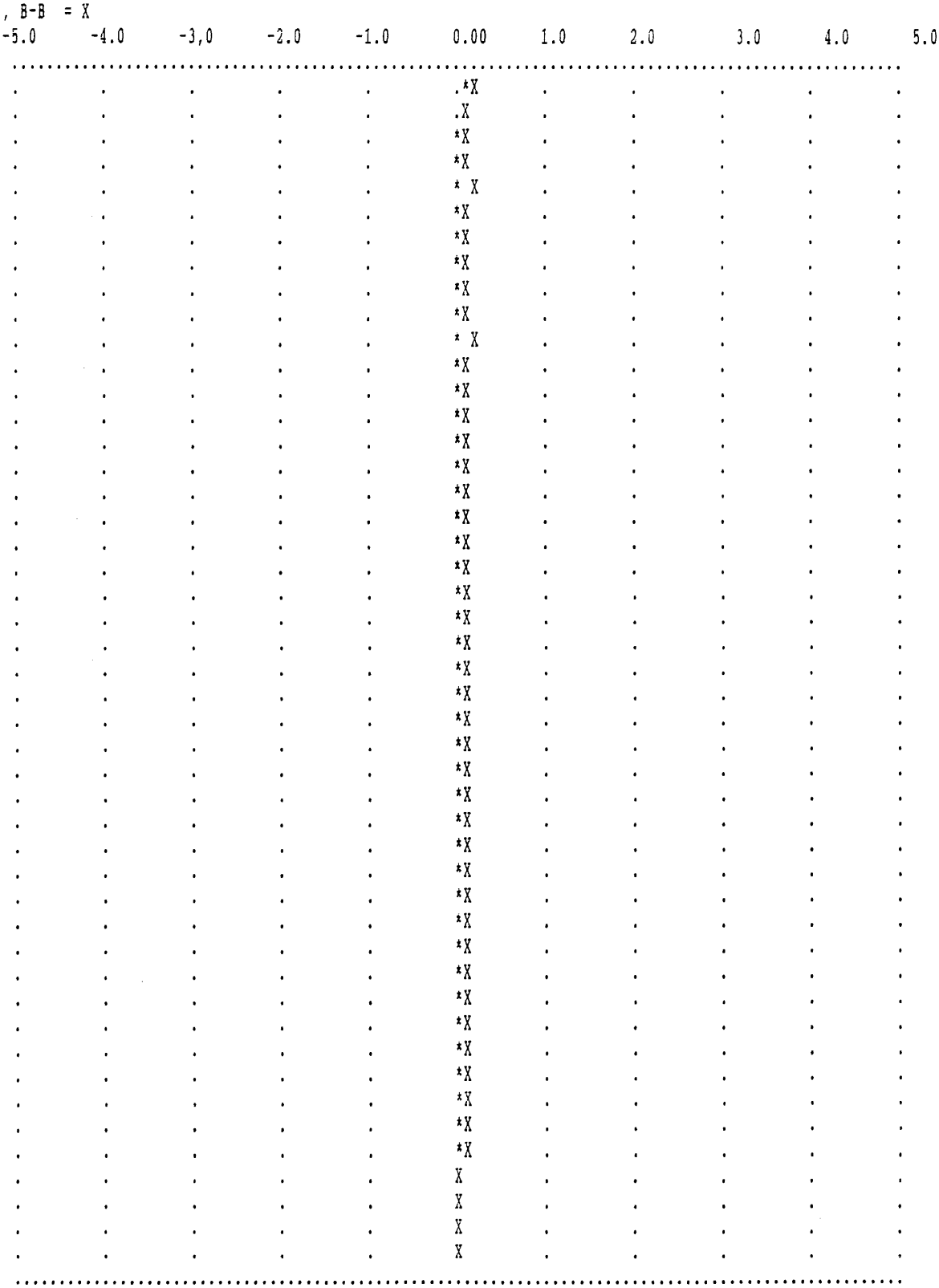


1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
DATE NOV. 18, 1987
BOTTOM ELEV. 909.2
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
A-A MEAN BIAS = 3 B-B MEAN BIAS = -21 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.20	.127	.215
999.20	.117	.089
997.20	.046	.068
995.20	-.020	.116
993.20	-.044	.154
991.20	-.033	.148
989.20	-.009	.133
987.20	-.005	.131
985.20	-.005	.128
983.20	-.010	.143
981.20	-.001	.152
979.20	.004	.150
977.20	-.012	.128
975.20	-.016	.122
973.20	-.005	.123
971.20	-.007	.126
969.20	-.004	.122
967.20	-.007	.125
965.20	-.012	.120
963.20	-.007	.106
961.20	-.010	.083
959.20	-.004	.091
957.20	.003	.103
955.20	.002	.122
953.20	-.002	.119
951.20	-.007	.133
949.20	.007	.109
947.20	-.004	.095
945.20	-.017	.085
943.20	-.017	.077
941.20	-.017	.068
939.20	-.021	.064
937.20	-.023	.073
935.20	-.022	.059
933.20	-.026	.053
931.20	-.019	.059
929.20	-.014	.061
927.20	-.013	.060
925.20	-.008	.058
923.20	-.008	.061
921.20	-.016	.060
919.20	-.015	.057
917.20	-.015	.051
915.20	-.004	.038
913.20	-.015	.011
911.20	-.010	-.002
909.20	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .14
B-B DEFLECTION = .34
TOP ELEVATION OF TUBE = 1003.20
1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-4
PLOTS-- A-A = *, B-B = X



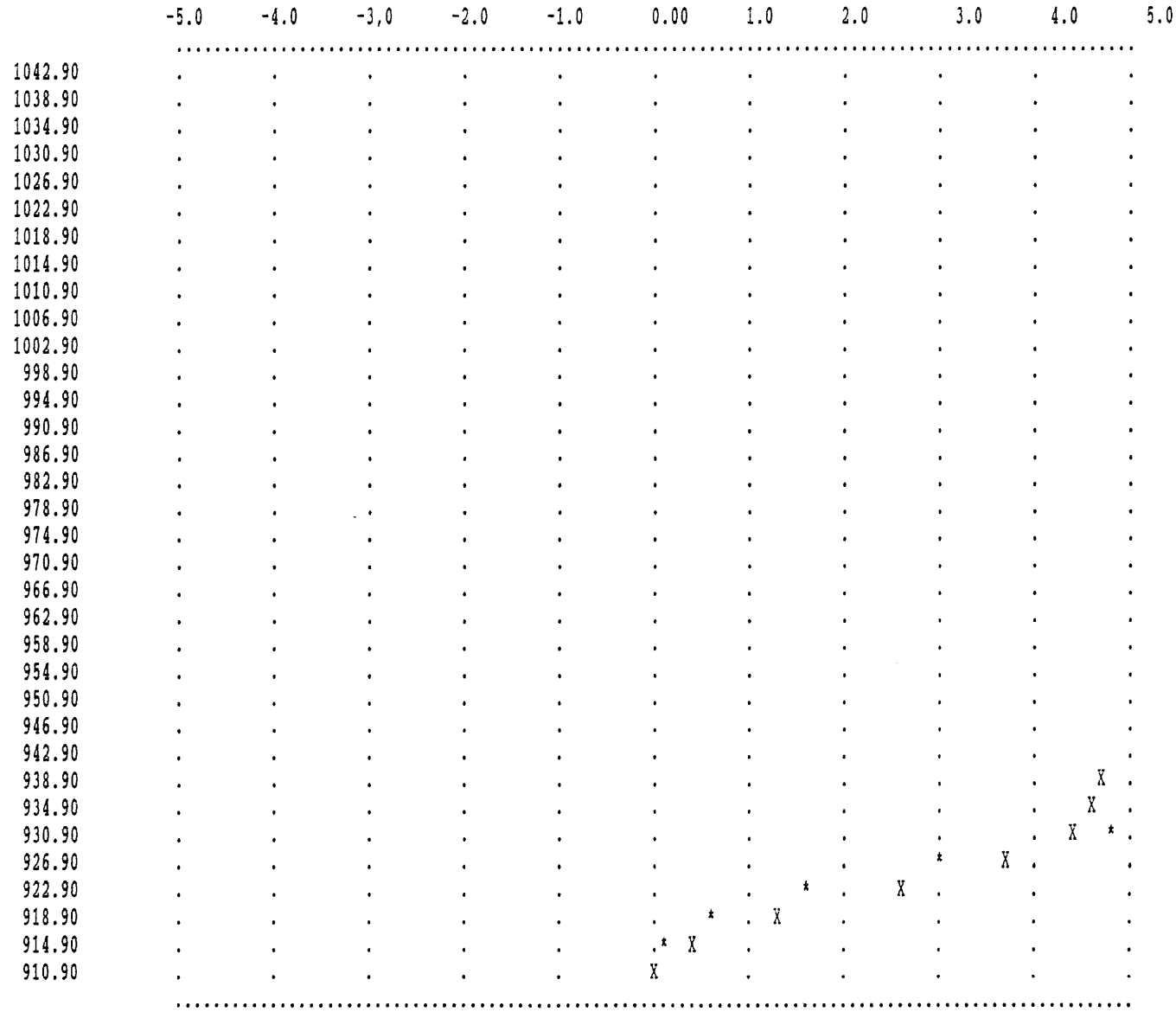
1**** 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
DATE JAN. 23, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 115 B-B MEAN BIAS = 18 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	25.732	19.673
1040.90	25.240	18.934
1038.90	24.814	18.223
1036.90	24.618	17.656
1034.90	24.659	17.293
1032.90	24.809	17.109
1030.90	24.988	17.026
1028.90	25.167	16.938
1026.90	25.321	16.832
1024.90	25.407	16.728
1022.90	25.454	16.591
1020.90	25.454	16.518
1018.90	25.378	16.559
1016.90	25.231	16.712
1014.90	25.001	16.951
1012.90	24.705	17.273
1010.90	24.389	17.417
1008.90	24.079	17.421
1006.90	23.692	17.368
1004.90	23.246	17.295
1002.90	22.840	17.155
1000.90	22.499	16.922
998.90	22.214	16.640
996.90	21.914	16.318
994.90	21.585	15.990
992.90	21.218	15.686
990.90	20.777	15.388
988.90	20.245	15.025
986.90	19.759	14.629
984.90	19.305	14.228
982.90	18.877	13.852
980.90	18.493	13.573
978.90	18.164	13.403
976.90	17.868	13.280
974.90	17.547	13.166
972.90	17.177	13.097
970.90	16.730	13.007
968.90	16.252	12.932
966.90	15.698	12.815
964.90	15.046	12.629
962.90	14.320	12.371
960.90	13.525	12.026
958.90	12.703	11.611
956.90	11.825	11.127
954.90	10.916	10.591
952.90	9.980	9.940
950.90	9.069	9.225
948.90	8.276	8.383
946.90	7.663	7.541
944.90	7.149	6.718
942.90	6.755	5.990
940.90	6.559	5.414

938.90	6.532	4.990
936.90	6.494	4.733
934.90	6.317	4.618
932.90	5.979	4.580
930.90	5.471	4.546
928.90	4.762	4.421
926.90	3.849	4.094
924.90	2.987	3.719
922.90	2.233	3.221
920.90	1.564	2.593
918.90	.994	1.919
916.90	.573	1.335
914.90	.284	.794
912.90	.133	.395
910.90	.052	.166
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = 26.22
B-B DEFLECTION = 20.41
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-5-85 INITIAL READINGS
PLOTS-- A-A = *, B-B = X



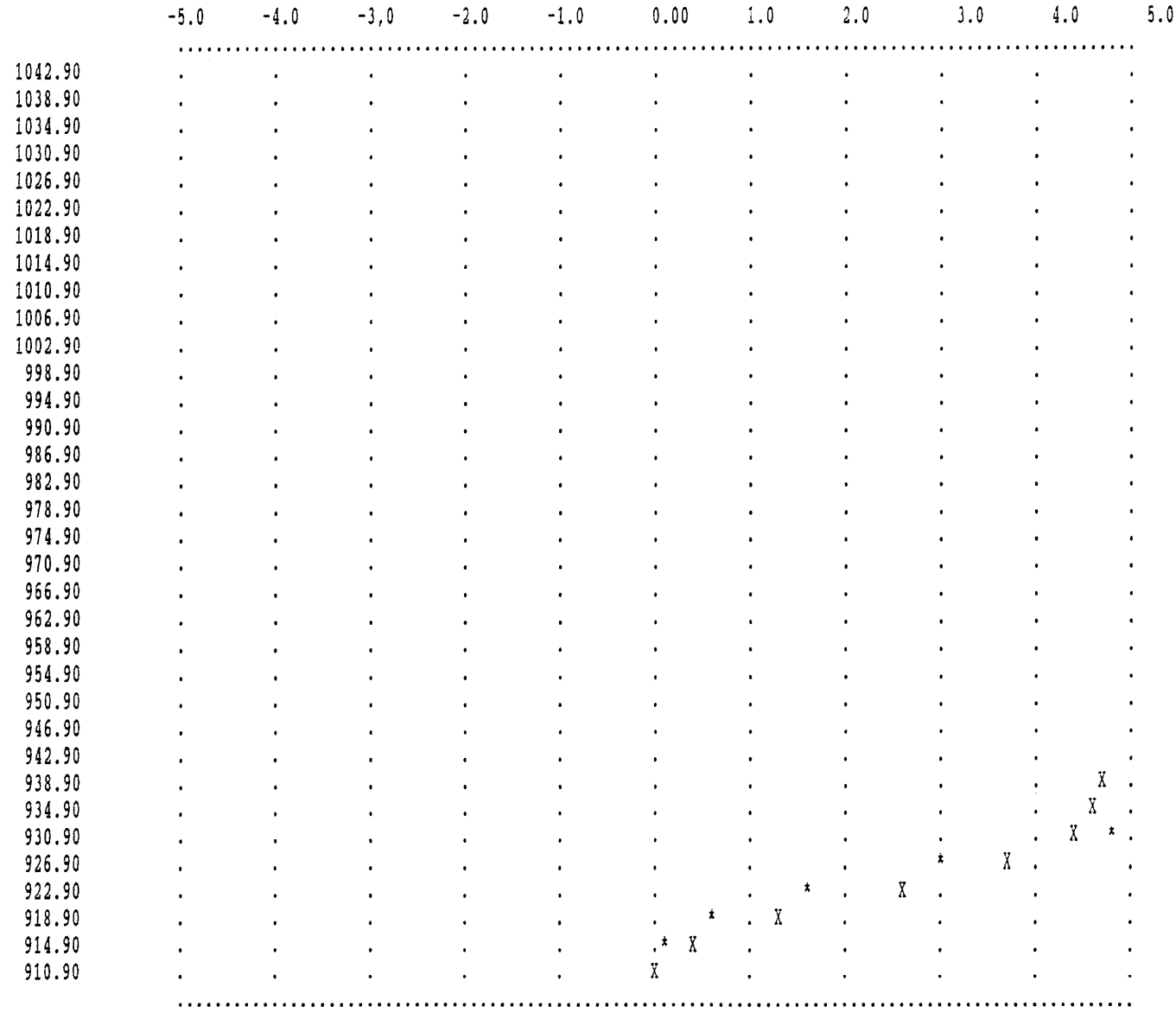
1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE APR. 1, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 100 B-B MEAN BIAS = 14 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	25.898	19.670
1040.90	25.348	18.903
1038.90	24.943	18.214
1036.90	24.754	17.659
1034.90	24.785	17.302
1032.90	24.936	17.124
1030.90	25.121	17.042
1028.90	25.303	16.940
1026.90	25.456	16.841
1024.90	25.541	16.740
1022.90	25.589	16.599
1020.90	25.589	16.525
1018.90	25.513	16.568
1016.90	25.367	16.711
1014.90	25.139	16.951
1012.90	24.847	17.260
1010.90	24.533	17.401
1008.90	24.213	17.390
1006.90	23.816	17.336
1004.90	23.360	17.250
1002.90	22.948	17.116
1000.90	22.597	16.892
998.90	22.304	16.614
996.90	21.983	16.294
994.90	21.639	15.962
992.90	21.265	15.662
990.90	20.821	15.361
988.90	20.295	14.993
986.90	19.805	14.605
984.90	19.347	14.206
982.90	18.922	13.825
980.90	18.534	13.547
978.90	18.203	13.377
976.90	17.910	13.241
974.90	17.587	13.125
972.90	17.205	13.058
970.90	16.753	12.977
968.90	16.274	12.901
966.90	15.715	12.789
964.90	15.059	12.601
962.90	14.332	12.340
960.90	13.529	12.008
958.90	12.703	11.594
956.90	11.836	11.105
954.90	10.925	10.556
952.90	9.986	9.895
950.90	9.068	9.165
948.90	8.276	8.323
946.90	7.664	7.478
944.90	7.154	6.661
942.90	6.759	5.934
940.90	6.572	5.360

938.90	6.548	4.946
936.90	6.513	4.697
934.90	6.330	4.597
932.90	5.987	4.568
930.90	5.468	4.543
928.90	4.753	4.414
926.90	3.841	4.079
924.90	2.979	3.705
922.90	2.227	3.201
920.90	1.559	2.578
918.90	.974	1.903
916.90	.554	1.327
914.90	.273	.780
912.90	.130	.380
910.90	.057	.167
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = 26.45
B-B DEFLECTION = 20.44
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X



1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE MAY 13, 1986
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 78 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.269	-.139
1040.90	-.206	-.145
1038.90	-.208	-.142
1036.90	-.217	-.133
1034.90	-.214	-.138
1032.90	-.214	-.141
1030.90	-.212	-.143
1028.90	-.210	-.134
1026.90	-.209	-.129
1024.90	-.208	-.126
1022.90	-.206	-.129
1020.90	-.206	-.128
1018.90	-.206	-.116
1016.90	-.206	-.113
1014.90	-.206	-.104
1012.90	-.208	-.093
1010.90	-.206	-.093
1008.90	-.205	-.091
1006.90	-.203	-.088
1004.90	-.200	-.089
1002.90	-.197	-.091
1000.90	-.196	-.089
998.90	-.193	-.083
996.90	-.190	-.080
994.90	-.190	-.081
992.90	-.188	-.077
990.90	-.185	-.079
988.90	-.181	-.079
986.90	-.177	-.073
984.90	-.173	-.074
982.90	-.170	-.074
980.90	-.166	-.068
978.90	-.163	-.061
976.90	-.160	-.061
974.90	-.158	-.052
972.90	-.155	-.051
970.90	-.152	-.056
968.90	-.149	-.064
966.90	-.148	-.060
964.90	-.143	-.057
962.90	-.142	-.057
960.90	-.139	-.067
958.90	-.136	-.062
956.90	-.133	-.062
954.90	-.131	-.055
952.90	-.131	-.046
950.90	-.128	-.052
948.90	-.117	-.056
946.90	-.110	-.044
944.90	-.105	-.045
942.90	-.100	-.046
940.90	-.089	-.037

938.90	-.082	-.032
936.90	-.082	-.033
934.90	-.085	-.031
932.90	-.086	-.030
930.90	-.089	-.034
928.90	-.092	-.032
926.90	-.089	-.034
924.90	-.084	-.031
922.90	-.074	-.035
920.90	-.068	-.037
918.90	-.065	-.044
916.90	-.052	-.029
914.90	-.040	-.023
912.90	-.026	-.007
910.90	-.013	.004
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.33
B-B DEFLECTION = -.13
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .       *X.       .        .        .        .        .
1038.90         .        .        .        .        .       *X.       .        .        .        .        .
1034.90         .        .        .        .        .       *X.       .        .        .        .        .
1030.90         .        .        .        .        .       *X.       .        .        .        .        .
1026.90         .        .        .        .        .       *X.       .        .        .        .        .
1022.90         .        .        .        .        .       *X.       .        .        .        .        .
1018.90         .        .        .        .        .       *X.       .        .        .        .        .
1014.90         .        .        .        .        .       *X.       .        .        .        .        .
1010.90         .        .        .        .        .       *X.       .        .        .        .        .
1006.90         .        .        .        .        .       *X.       .        .        .        .        .
1002.90         .        .        .        .        .       *X.       .        .        .        .        .
 998.90         .        .        .        .        .       *X.       .        .        .        .        .
 994.90         .        .        .        .        .       *X.       .        .        .        .        .
 990.90         .        .        .        .        .       *X.       .        .        .        .        .
 986.90         .        .        .        .        .       *X.       .        .        .        .        .
 982.90         .        .        .        .        .       *X.       .        .        .        .        .
 978.90         .        .        .        .        .       *X.       .        .        .        .        .
 974.90         .        .        .        .        .       *X.       .        .        .        .        .
 970.90         .        .        .        .        .        X.       .        .        .        .        .
 966.90         .        .        .        .        .        X.       .        .        .        .        .
 962.90         .        .        .        .        .        X.       .        .        .        .        .
 958.90         .        .        .        .        .        X.       .        .        .        .        .
 954.90         .        .        .        .        .       *X        .        .        .        .        .
 950.90         .        .        .        .        .        X.       .        .        .        .        .
 946.90         .        .        .        .        .       *X        .        .        .        .        .
 942.90         .        .        .        .        .       *X        .        .        .        .        .
 938.90         .        .        .        .        .       *X        .        .        .        .        .
 934.90         .        .        .        .        .       *X        .        .        .        .        .
 930.90         .        .        .        .        .       *X        .        .        .        .        .
 926.90         .        .        .        .        .       *X        .        .        .        .        .
 922.90         .        .        .        .        .       *X        .        .        .        .        .
 918.90         .        .        .        .        .       *X        .        .        .        .        .
 914.90         .        .        .        .        .        X        .        .        .        .        .
 910.90         .        .        .        .        .        X        .        .        .        .        .
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1**** 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE JUNE 16, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 86 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.247	-.094
1040.90	-.166	-.116
1038.90	-.164	-.107
1036.90	-.171	-.107
1034.90	-.171	-.125
1032.90	-.173	-.139
1030.90	-.173	-.144
1028.90	-.173	-.140
1026.90	-.173	-.140
1024.90	-.176	-.139
1022.90	-.175	-.144
1020.90	-.171	-.151
1018.90	-.170	-.146
1016.90	-.173	-.151
1014.90	-.173	-.152
1012.90	-.172	-.142
1010.90	-.172	-.138
1008.90	-.172	-.137
1006.90	-.169	-.136
1004.90	-.166	-.136
1002.90	-.163	-.132
1000.90	-.163	-.134
998.90	-.161	-.126
996.90	-.160	-.122
994.90	-.161	-.121
992.90	-.160	-.124
990.90	-.157	-.123
988.90	-.156	-.118
986.90	-.155	-.121
984.90	-.154	-.119
982.90	-.153	-.129
980.90	-.151	-.128
978.90	-.151	-.121
976.90	-.147	-.118
974.90	-.145	-.107
972.90	-.141	-.118
970.90	-.136	-.122
968.90	-.133	-.134
966.90	-.128	-.129
964.90	-.123	-.128
962.90	-.119	-.134
960.90	-.115	-.133
958.90	-.111	-.122
956.90	-.107	-.118
954.90	-.101	-.103
952.90	-.098	-.099
950.90	-.097	-.103
948.90	-.092	-.104
946.90	-.088	-.094
944.90	-.088	-.083
942.90	-.088	-.078
940.90	-.087	-.070

938.90	-.082	-.067
936.90	-.077	-.062
934.90	-.074	-.060
932.90	-.070	-.059
930.90	-.072	-.050
928.90	-.071	-.048
926.90	-.064	-.043
924.90	-.062	-.037
922.90	-.054	-.037
920.90	-.048	-.034
918.90	-.046	-.035
916.90	-.033	-.025
914.90	-.028	-.023
912.90	-.019	-.004
910.90	-.009	.001
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.33
B-B DEFLECTION = -.07
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .        *X.      .        .        .        .        .
1038.90         .        .        .        .        .        *X.      .        .        .        .        .
1034.90         .        .        .        .        .        *X.      .        .        .        .        .
1030.90         .        .        .        .        .        *X.      .        .        .        .        .
1026.90         .        .        .        .        .        *X.      .        .        .        .        .
1022.90         .        .        .        .        .        X .      .        .        .        .        .
1018.90         .        .        .        .        .        X .      .        .        .        .        .
1014.90         .        .        .        .        .        *X.      .        .        .        .        .
1010.90         .        .        .        .        .        *X.      .        .        .        .        .
1006.90         .        .        .        .        .        *X.      .        .        .        .        .
1002.90         .        .        .        .        .        *X.      .        .        .        .        .
 998.90         .        .        .        .        .        *X.      .        .        .        .        .
 994.90         .        .        .        .        .        *X.      .        .        .        .        .
 990.90         .        .        .        .        .        *X.      .        .        .        .        .
 986.90         .        .        .        .        .        *X.      .        .        .        .        .
 982.90         .        .        .        .        .        *X.      .        .        .        .        .
 978.90         .        .        .        .        .         X.      .        .        .        .        .
 974.90         .        .        .        .        .         X.      .        .        .        .        .
 970.90         .        .        .        .        .         X.      .        .        .        .        .
 966.90         .        .        .        .        .         X.      .        .        .        .        .
 962.90         .        .        .        .        .         X.      .        .        .        .        .
 958.90         .        .        .        .        .         X.      .        .        .        .        .
 954.90         .        .        .        .        .         X.      .        .        .        .        .
 950.90         .        .        .        .        .         X.      .        .        .        .        .
 946.90         .        .        .        .        .         X.      .        .        .        .        .
 942.90         .        .        .        .        .         X.      .        .        .        .        .
 938.90         .        .        .        .        .         X.      .        .        .        .        .
 934.90         .        .        .        .        .         X.      .        .        .        .        .
 930.90         .        .        .        .        .         *X      .        .        .        .        .
 926.90         .        .        .        .        .         *X      .        .        .        .        .
 922.90         .        .        .        .        .          X      .        .        .        .        .
 918.90         .        .        .        .        .          X      .        .        .        .        .
 914.90         .        .        .        .        .          X      .        .        .        .        .
 910.90         .        .        .        .        .          X      .        .        .        .        .
                ..........................................................................................
```

1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE JULY 16, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 114 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.254	.090
1040.90	-.209	.059
1038.90	-.202	.065
1036.90	-.209	.065
1034.90	-.207	.049
1032.90	-.208	.038
1030.90	-.206	.031
1028.90	-.204	.025
1026.90	-.203	.019
1024.90	-.204	.021
1022.90	-.202	.009
1020.90	-.191	.002
1018.90	-.188	.008
1016.90	-.190	.010
1014.90	-.186	.009
1012.90	-.178	.018
1010.90	-.175	.017
1008.90	-.171	.014
1006.90	-.166	.014
1004.90	-.161	.010
1002.90	-.155	.010
1000.90	-.152	.008
998.90	-.150	.010
996.90	-.149	.008
994.90	-.151	.004
992.90	-.149	.004
990.90	-.146	.001
988.90	-.145	.004
986.90	-.144	.001
984.90	-.141	.006
982.90	-.139	.003
980.90	-.136	.003
978.90	-.133	.007
976.90	-.130	.014
974.90	-.128	.021
972.90	-.124	.018
970.90	-.118	.007
968.90	-.116	-.005
966.90	-.114	-.002
964.90	-.111	-.015
962.90	-.109	-.019
960.90	-.106	-.023
958.90	-.105	-.028
956.90	-.103	-.028
954.90	-.100	-.026
952.90	-.100	-.021
950.90	-.101	-.026
948.90	-.095	-.031
946.90	-.090	-.031
944.90	-.087	-.035
942.90	-.085	-.038
940.90	-.079	-.032

938.90	-.074	-.029
936.90	-.072	-.024
934.90	-.074	-.018
932.90	-.074	-.016
930.90	-.076	-.018
928.90	-.077	-.025
926.90	-.072	-.017
924.90	-.068	-.025
922.90	-.059	-.026
920.90	-.053	-.022
918.90	-.051	-.029
916.90	-.037	-.028
914.90	-.029	-.027
912.90	-.017	-.011
910.90	-.007	.000
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.30
B-B DEFLECTION = .12
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

PLOTS-- A-A = *, B-B = X

```
                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .      * .X      .        .        .        .        .
1038.90         .        .        .        .        .      * .X      .        .        .        .        .
1034.90         .        .        .        .        .      * X       .        .        .        .        .
1030.90         .        .        .        .        .      * X       .        .        .        .        .
1026.90         .        .        .        .        .      * X       .        .        .        .        .
1022.90         .        .        .        .        .      * X       .        .        .        .        .
1018.90         .        .        .        .        .      * X       .        .        .        .        .
1014.90         .        .        .        .        .      * X       .        .        .        .        .
1010.90         .        .        .        .        .      * X       .        .        .        .        .
1006.90         .        .        .        .        .      * X       .        .        .        .        .
1002.90         .        .        .        .        .      * X       .        .        .        .        .
 998.90         .        .        .        .        .      *X        .        .        .        .        .
 994.90         .        .        .        .        .      *X        .        .        .        .        .
 990.90         .        .        .        .        .      *X        .        .        .        .        .
 986.90         .        .        .        .        .      *X        .        .        .        .        .
 982.90         .        .        .        .        .      *X        .        .        .        .        .
 978.90         .        .        .        .        .      *X        .        .        .        .        .
 974.90         .        .        .        .        .      *X        .        .        .        .        .
 970.90         .        .        .        .        .      *X        .        .        .        .        .
 966.90         .        .        .        .        .      *X        .        .        .        .        .
 962.90         .        .        .        .        .      *X        .        .        .        .        .
 958.90         .        .        .        .        .      *X        .        .        .        .        .
 954.90         .        .        .        .        .      *X        .        .        .        .        .
 950.90         .        .        .        .        .      *X        .        .        .        .        .
 946.90         .        .        .        .        .      *X        .        .        .        .        .
 942.90         .        .        .        .        .      *X        .        .        .        .        .
 938.90         .        .        .        .        .      *X        .        .        .        .        .
 934.90         .        .        .        .        .      *X        .        .        .        .        .
 930.90         .        .        .        .        .      *X        .        .        .        .        .
 926.90         .        .        .        .        .      *X        .        .        .        .        .
 922.90         .        .        .        .        .      *X        .        .        .        .        .
 918.90         .        .        .        .        .       X        .        .        .        .        .
 914.90         .        .        .        .        .       X        .        .        .        .        .
 910.90         .        .        .        .        .       X        .        .        .        .        .
                ..........................................................................................
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1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE AUG. 19, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 93 B-B MEAN BIAS = 12 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.186	.091
1040.90	-.125	.041
1038.90	-.116	.049
1036.90	-.122	.056
1034.90	-.123	.050
1032.90	-.125	.041
1030.90	-.127	.037
1028.90	-.127	.034
1026.90	-.129	.035
1024.90	-.134	.041
1022.90	-.135	.032
1020.90	-.130	.023
1018.90	-.132	.034
1016.90	-.143	.035
1014.90	-.147	.034
1012.90	-.146	.043
1010.90	-.149	.044
1008.90	-.150	.034
1006.90	-.149	.032
1004.90	-.143	.026
1002.90	-.139	.024
1000.90	-.136	.028
998.90	-.134	.033
996.90	-.134	.032
994.90	-.137	.031
992.90	-.135	.038
990.90	-.133	.037
988.90	-.133	.034
986.90	-.133	.029
984.90	-.131	.036
982.90	-.129	.034
980.90	-.127	.037
978.90	-.125	.040
976.90	-.121	.041
974.90	-.121	.047
972.90	-.118	.046
970.90	-.114	.041
968.90	-.113	.032
966.90	-.113	.026
964.90	-.112	.014
962.90	-.110	.010
960.90	-.109	.011
958.90	-.109	.008
956.90	-.106	.008
954.90	-.101	.013
952.90	-.101	.013
950.90	-.100	-.001
948.90	-.090	-.003
946.90	-.085	.007
944.90	-.081	.013
942.90	-.079	.018
940.90	-.071	.023

938.90	-.064	.026
936.90	-.043	.026
934.90	-.049	.031
932.90	-.052	.026
930.90	-.058	.016
928.90	-.064	.007
926.90	-.060	.002
924.90	-.058	-.004
922.90	-.049	-.013
920.90	-.047	-.024
918.90	-.044	-.030
916.90	-.031	-.023
914.90	-.025	-.023
912.90	-.014	-.004
910.90	-.006	.008
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.25
B-B DEFLECTION = .14
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .       *X       .        .        .        .        .
1038.90         .        .        .        .        .       *.X      .        .        .        .        .
1034.90         .        .        .        .        .       *X       .        .        .        .        .
1030.90         .        .        .        .        .       *X       .        .        .        .        .
1026.90         .        .        .        .        .       *X       .        .        .        .        .
1022.90         .        .        .        .        .       *X       .        .        .        .        .
1018.90         .        .        .        .        .       *X       .        .        .        .        .
1014.90         .        .        .        .        .       *X       .        .        .        .        .
1010.90         .        .        .        .        .       * X      .        .        .        .        .
1006.90         .        .        .        .        .       *X       .        .        .        .        .
1002.90         .        .        .        .        .       *X       .        .        .        .        .
 998.90         .        .        .        .        .       *X       .        .        .        .        .
 994.90         .        .        .        .        .       *X       .        .        .        .        .
 990.90         .        .        .        .        .       *X       .        .        .        .        .
 986.90         .        .        .        .        .       *X       .        .        .        .        .
 982.90         .        .        .        .        .       *X       .        .        .        .        .
 978.90         .        .        .        .        .       *X       .        .        .        .        .
 974.90         .        .        .        .        .       *X       .        .        .        .        .
 970.90         .        .        .        .        .       *X       .        .        .        .        .
 966.90         .        .        .        .        .       *X       .        .        .        .        .
 962.90         .        .        .        .        .       *X       .        .        .        .        .
 958.90         .        .        .        .        .       *X       .        .        .        .        .
 954.90         .        .        .        .        .       *X       .        .        .        .        .
 950.90         .        .        .        .        .       *X       .        .        .        .        .
 946.90         .        .        .        .        .       *X       .        .        .        .        .
 942.90         .        .        .        .        .       *X       .        .        .        .        .
 938.90         .        .        .        .        .        X       .        .        .        .        .
 934.90         .        .        .        .        .       *X       .        .        .        .        .
 930.90         .        .        .        .        .       *X       .        .        .        .        .
 926.90         .        .        .        .        .       *X       .        .        .        .        .
 922.90         .        .        .        .        .        X       .        .        .        .        .
 918.90         .        .        .        .        .        X       .        .        .        .        .
 914.90         .        .        .        .        .        X       .        .        .        .        .
 910.90         .        .        .        .        .        X       .        .        .        .        .
                ..........................................................................................
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1**** 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE SEP. 22, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 86 B-B MEAN BIAS = 27 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.201	-.103
1040.90	-.147	-.142
1038.90	-.138	-.131
1036.90	-.148	-.126
1034.90	-.151	-.140
1032.90	-.155	-.147
1030.90	-.157	-.150
1028.90	-.157	-.149
1026.90	-.159	-.151
1024.90	-.166	-.149
1022.90	-.167	-.156
1020.90	-.162	-.166
1018.90	-.163	-.196
1016.90	-.174	-.194
1014.90	-.177	-.196
1012.90	-.176	-.189
1010.90	-.179	-.186
1008.90	-.181	-.187
1006.90	-.180	-.187
1004.90	-.176	-.182
1002.90	-.173	-.173
1000.90	-.171	-.170
998.90	-.168	-.161
996.90	-.168	-.155
994.90	-.171	-.154
992.90	-.170	-.145
990.90	-.169	-.143
988.90	-.170	-.140
986.90	-.169	-.142
984.90	-.169	-.133
982.90	-.167	-.146
980.90	-.164	-.142
978.90	-.161	-.140
976.90	-.157	-.133
974.90	-.157	-.124
972.90	-.152	-.121
970.90	-.147	-.125
968.90	-.145	-.130
966.90	-.142	-.122
964.90	-.139	-.123
962.90	-.136	-.119
960.90	-.134	-.118
958.90	-.133	-.121
956.90	-.130	-.124
954.90	-.125	-.122
952.90	-.124	-.115
950.90	-.123	-.124
948.90	-.112	-.122
946.90	-.104	-.105
944.90	-.098	-.093
942.90	-.095	-.088
940.90	-.085	-.073

938.90	-.075	-.069
936.90	-.071	-.065
934.90	-.074	-.057
932.90	-.076	-.060
930.90	-.079	-.065
928.90	-.083	-.067
926.90	-.079	-.058
924.90	-.075	-.061
922.90	-.063	-.062
920.90	-.060	-.063
918.90	-.058	-.062
916.90	-.043	-.046
914.90	-.033	-.041
912.90	-.019	-.017
910.90	-.008	.001
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.25
B-B DEFLECTION = -.06
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .        X.       .        .        .        .        .
1038.90         .        .        .        .        .        X.       .        .        .        .        .
1034.90         .        .        .        .        .       *X.       .        .        .        .        .
1030.90         .        .        .        .        .       *X.       .        .        .        .        .
1026.90         .        .        .        .        .       *X.       .        .        .        .        .
1022.90         .        .        .        .        .       X .       .        .        .        .        .
1018.90         .        .        .        .        .       X .       .        .        .        .        .
1014.90         .        .        .        .        .       X .       .        .        .        .        .
1010.90         .        .        .        .        .       X .       .        .        .        .        .
1006.90         .        .        .        .        .       X .       .        .        .        .        .
1002.90         .        .        .        .        .       X .       .        .        .        .        .
 998.90         .        .        .        .        .       X .       .        .        .        .        .
 994.90         .        .        .        .        .       *X.       .        .        .        .        .
 990.90         .        .        .        .        .       *X.       .        .        .        .        .
 986.90         .        .        .        .        .       *X.       .        .        .        .        .
 982.90         .        .        .        .        .       *X.       .        .        .        .        .
 978.90         .        .        .        .        .       *X.       .        .        .        .        .
 974.90         .        .        .        .        .       *X.       .        .        .        .        .
 970.90         .        .        .        .        .        X.       .        .        .        .        .
 966.90         .        .        .        .        .        X.       .        .        .        .        .
 962.90         .        .        .        .        .        X.       .        .        .        .        .
 958.90         .        .        .        .        .        X.       .        .        .        .        .
 954.90         .        .        .        .        .        X.       .        .        .        .        .
 950.90         .        .        .        .        .        X.       .        .        .        .        .
 946.90         .        .        .        .        .        X.       .        .        .        .        .
 942.90         .        .        .        .        .        X.       .        .        .        .        .
 938.90         .        .        .        .        .        X.       .        .        .        .        .
 934.90         .        .        .        .        .        X.       .        .        .        .        .
 930.90         .        .        .        .        .        X.       .        .        .        .        .
 926.90         .        .        .        .        .        X.       .        .        .        .        .
 922.90         .        .        .        .        .        X.       .        .        .        .        .
 918.90         .        .        .        .        .         X       .        .        .        .        .
 914.90         .        .        .        .        .         X       .        .        .        .        .
 910.90         .        .        .        .        .         X       .        .        .        .        .
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1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE NOV. 8, 1986
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 82 B-B MEAN BIAS = 5 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.123	-.087
1040.90	-.072	-.113
1038.90	-.061	-.105
1036.90	-.070	-.100
1034.90	-.075	-.108
1032.90	-.080	-.113
1030.90	-.083	-.121
1028.90	-.085	-.121
1026.90	-.089	-.123
1024.90	-.096	-.119
1022.90	-.099	-.123
1020.90	-.095	-.125
1018.90	-.098	-.110
1016.90	-.110	-.106
1014.90	-.115	-.103
1012.90	-.113	-.088
1010.90	-.118	-.083
1008.90	-.122	-.088
1006.90	-.127	-.088
1004.90	-.126	-.087
1002.90	-.124	-.083
1000.90	-.122	-.084
998.90	-.122	-.082
996.90	-.124	-.082
994.90	-.130	-.079
992.90	-.130	-.077
990.90	-.130	-.079
988.90	-.130	-.079
986.90	-.129	-.082
984.90	-.128	-.079
982.90	-.126	-.080
980.90	-.123	-.071
978.90	-.122	-.063
976.90	-.118	-.061
974.90	-.121	-.047
972.90	-.116	-.044
970.90	-.113	-.048
968.90	-.112	-.052
966.90	-.112	-.046
964.90	-.109	-.050
962.90	-.106	-.053
960.90	-.104	-.051
958.90	-.105	-.049
956.90	-.102	-.049
954.90	-.098	-.045
952.90	-.100	-.039
950.90	-.100	-.047
948.90	-.088	-.053
946.90	-.083	-.040
944.90	-.078	-.036
942.90	-.078	-.030
940.90	-.070	-.016

938.90	-.061	-.006
936.90	-.058	.000
934.90	-.063	.012
932.90	-.064	.011
930.90	-.069	.002
928.90	-.074	-.008
926.90	-.069	-.008
924.90	-.065	-.007
922.90	-.053	-.017
920.90	-.050	-.022
918.90	-.045	-.027
916.90	-.032	-.018
914.90	-.023	-.024
912.90	-.010	-.002
910.90	-.002	.012
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.17
B-B DEFLECTION = -.06
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .        X.       .        .        .        .        .
1038.90         .        .        .        .        .        X.       .        .        .        .        .
1034.90         .        .        .        .        .        X.       .        .        .        .        .
1030.90         .        .        .        .        .        X.       .        .        .        .        .
1026.90         .        .        .        .        .        X.       .        .        .        .        .
1022.90         .        .        .        .        .        X.       .        .        .        .        .
1018.90         .        .        .        .        .        X.       .        .        .        .        .
1014.90         .        .        .        .        .        X.       .        .        .        .        .
1010.90         .        .        .        .        .        X.       .        .        .        .        .
1006.90         .        .        .        .        .        X.       .        .        .        .        .
1002.90         .        .        .        .        .        X.       .        .        .        .        .
 998.90         .        .        .        .        .        X.       .        .        .        .        .
 994.90         .        .        .        .        .        X.       .        .        .        .        .
 990.90         .        .        .        .        .        X.       .        .        .        .        .
 986.90         .        .        .        .        .        X.       .        .        .        .        .
 982.90         .        .        .        .        .        X.       .        .        .        .        .
 978.90         .        .        .        .        .        X.       .        .        .        .        .
 974.90         .        .        .        .        .        *X       .        .        .        .        .
 970.90         .        .        .        .        .        X.       .        .        .        .        .
 966.90         .        .        .        .        .        *X       .        .        .        .        .
 962.90         .        .        .        .        .        X.       .        .        .        .        .
 958.90         .        .        .        .        .        *X       .        .        .        .        .
 954.90         .        .        .        .        .        *X       .        .        .        .        .
 950.90         .        .        .        .        .        X.       .        .        .        .        .
 946.90         .        .        .        .        .        *X       .        .        .        .        .
 942.90         .        .        .        .        .        *X       .        .        .        .        .
 938.90         .        .        .        .        .        *X       .        .        .        .        .
 934.90         .        .        .        .        .        *X       .        .        .        .        .
 930.90         .        .        .        .        .        *X       .        .        .        .        .
 926.90         .        .        .        .        .        *X       .        .        .        .        .
 922.90         .        .        .        .        .         X       .        .        .        .        .
 918.90         .        .        .        .        .         X       .        .        .        .        .
 914.90         .        .        .        .        .         X       .        .        .        .        .
 910.90         .        .        .        .        .         X       .        .        .        .        .
```

1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE MAY 8, 1987
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 86 B-B MEAN BIAS = 17 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	.029	.305
1040.90	.101	.307
1038.90	.096	.321
1036.90	.085	.322
1034.90	.085	.306
1032.90	.083	.294
1030.90	.084	.288
1028.90	.085	.287
1026.90	.084	.286
1024.90	.077	.295
1022.90	.076	.286
1020.90	.082	.277
1018.90	.080	.284
1016.90	.063	.282
1014.90	.058	.269
1012.90	.062	.278
1010.90	.052	.284
1008.90	.041	.280
1006.90	.016	.277
1004.90	.001	.263
1002.90	-.002	.268
1000.90	-.008	.261
998.90	-.022	.256
996.90	-.059	.244
994.90	-.113	.236
992.90	-.129	.236
990.90	-.131	.230
988.90	-.127	.226
986.90	-.123	.219
984.90	-.119	.218
982.90	-.115	.201
980.90	-.112	.203
978.90	-.110	.206
976.90	-.104	.202
974.90	-.109	.204
972.90	-.104	.202
970.90	-.101	.193
968.90	-.100	.189
966.90	-.103	.191
964.90	-.101	.179
962.90	-.102	.169
960.90	-.102	.163
958.90	-.107	.157
956.90	-.104	.139
954.90	-.100	.136
952.90	-.104	.131
950.90	-.108	.107
948.90	-.085	.092
946.90	-.076	.098
944.90	-.069	.101
942.90	-.066	.096
940.90	-.050	.100

938.90	-.036	.105
936.90	-.052	.104
934.90	-.066	.116
932.90	-.074	.110
930.90	-.090	.092
928.90	-.104	.072
926.90	-.101	.070
924.90	-.095	.051
922.90	-.077	.036
920.90	-.073	.013
918.90	-.066	-.002
916.90	-.049	.006
914.90	-.032	.002
912.90	-.014	.017
910.90	-.004	.020
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.04
B-B DEFLECTION = .30
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

PLOTS-- A-A = *, B-B = X

```
                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .       .* X     .        .        .        .        .
1038.90         .        .        .        .        .       .* X     .        .        .        .        .
1034.90         .        .        .        .        .       .* X     .        .        .        .        .
1030.90         .        .        .        .        .       .* X     .        .        .        .        .
1026.90         .        .        .        .        .       .* X     .        .        .        .        .
1022.90         .        .        .        .        .       .* X     .        .        .        .        .
1018.90         .        .        .        .        .       .* X     .        .        .        .        .
1014.90         .        .        .        .        .       .* X     .        .        .        .        .
1010.90         .        .        .        .        .       *  X     .        .        .        .        .
1006.90         .        .        .        .        .       *  X     .        .        .        .        .
1002.90         .        .        .        .        .       *  X     .        .        .        .        .
 998.90         .        .        .        .        .      *. X      .        .        .        .        .
 994.90         .        .        .        .        .      *. X      .        .        .        .        .
 990.90         .        .        .        .        .      *. X      .        .        .        .        .
 986.90         .        .        .        .        .      *. X      .        .        .        .        .
 982.90         .        .        .        .        .      *. X      .        .        .        .        .
 978.90         .        .        .        .        .      *. X      .        .        .        .        .
 974.90         .        .        .        .        .      *. X      .        .        .        .        .
 970.90         .        .        .        .        .      *. X      .        .        .        .        .
 966.90         .        .        .        .        .      *. X      .        .        .        .        .
 962.90         .        .        .        .        .      *. X      .        .        .        .        .
 958.90         .        .        .        .        .      *.X       .        .        .        .        .
 954.90         .        .        .        .        .      *.X       .        .        .        .        .
 950.90         .        .        .        .        .      *.X       .        .        .        .        .
 946.90         .        .        .        .        .      *.X       .        .        .        .        .
 942.90         .        .        .        .        .      *.X       .        .        .        .        .
 938.90         .        .        .        .        .      *.X       .        .        .        .        .
 934.90         .        .        .        .        .      *.X       .        .        .        .        .
 930.90         .        .        .        .        .      *.X       .        .        .        .        .
 926.90         .        .        .        .        .      *.X       .        .        .        .        .
 922.90         .        .        .        .        .      *X        .        .        .        .        .
 918.90         .        .        .        .        .       X        .        .        .        .        .
 914.90         .        .        .        .        .       X        .        .        .        .        .
 910.90         .        .        .        .        .       X        .        .        .        .        .
                ..........................................................................................
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1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE JUNE 22, 1987
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 64 B-B MEAN BIAS = 71 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.104	-.170
1040.90	-.069	-.124
1038.90	-.067	-.108
1036.90	-.074	-.108
1034.90	-.074	-.122
1032.90	-.074	-.134
1030.90	-.069	-.137
1028.90	-.064	-.140
1026.90	-.062	-.139
1024.90	-.065	-.133
1022.90	-.063	-.140
1020.90	-.053	-.148
1018.90	-.053	-.136
1016.90	-.069	-.125
1014.90	-.073	-.135
1012.90	-.067	-.116
1010.90	-.074	-.112
1008.90	-.083	-.113
1006.90	-.104	-.114
1004.90	-.118	-.124
1002.90	-.117	-.122
1000.90	-.121	-.122
998.90	-.133	-.121
996.90	-.171	-.123
994.90	-.225	-.122
992.90	-.239	-.116
990.90	-.235	-.118
988.90	-.232	-.125
986.90	-.225	-.130
984.90	-.218	-.122
982.90	-.213	-.126
980.90	-.218	-.117
978.90	-.220	-.106
976.90	-.213	-.100
974.90	-.217	-.082
972.90	-.212	-.083
970.90	-.207	-.085
968.90	-.205	-.085
966.90	-.209	-.088
964.90	-.207	-.098
962.90	-.208	-.102
960.90	-.208	-.098
958.90	-.212	-.100
956.90	-.206	-.098
954.90	-.202	-.092
952.90	-.203	-.091
950.90	-.203	-.097
948.90	-.173	-.098
946.90	-.160	-.089
944.90	-.146	-.081
942.90	-.139	-.076
940.90	-.119	-.052

938.90	-.101	-.039
936.90	-.096	-.029
934.90	-.112	-.009
932.90	-.118	-.005
930.90	-.134	-.013
928.90	-.148	-.029
926.90	-.142	-.034
924.90	-.127	-.049
922.90	-.104	-.055
920.90	-.096	-.071
918.90	-.088	-.065
916.90	-.061	-.049
914.90	-.036	-.040
912.90	-.011	-.010
910.90	-.001	.012
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.14
B-B DEFLECTION = -.22
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X

```
                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .        X.       .        .        .        .        .
1038.90         .        .        .        .        .        X.       .        .        .        .        .
1034.90         .        .        .        .        .        X.       .        .        .        .        .
1030.90         .        .        .        .        .        X.       .        .        .        .        .
1026.90         .        .        .        .        .        X.       .        .        .        .        .
1022.90         .        .        .        .        .        X.       .        .        .        .        .
1018.90         .        .        .        .        .        X.       .        .        .        .        .
1014.90         .        .        .        .        .        X.       .        .        .        .        .
1010.90         .        .        .        .        .        X.       .        .        .        .        .
1006.90         .        .        .        .        .        X.       .        .        .        .        .
1002.90         .        .        .        .        .        X.       .        .        .        .        .
 998.90         .        .        .        .        .       *X.       .        .        .        .        .
 994.90         .        .        .        .        .       *X.       .        .        .        .        .
 990.90         .        .        .        .        .       *X.       .        .        .        .        .
 986.90         .        .        .        .        .       *X.       .        .        .        .        .
 982.90         .        .        .        .        .       *X.       .        .        .        .        .
 978.90         .        .        .        .        .       *X.       .        .        .        .        .
 974.90         .        .        .        .        .       *X.       .        .        .        .        .
 970.90         .        .        .        .        .       *X.       .        .        .        .        .
 966.90         .        .        .        .        .       *X.       .        .        .        .        .
 962.90         .        .        .        .        .       *X.       .        .        .        .        .
 958.90         .        .        .        .        .       *X.       .        .        .        .        .
 954.90         .        .        .        .        .       *X.       .        .        .        .        .
 950.90         .        .        .        .        .       *X.       .        .        .        .        .
 946.90         .        .        .        .        .        X.       .        .        .        .        .
 942.90         .        .        .        .        .        X.       .        .        .        .        .
 938.90         .        .        .        .        .        *X       .        .        .        .        .
 934.90         .        .        .        .        .        *X       .        .        .        .        .
 930.90         .        .        .        .        .        *X       .        .        .        .        .
 926.90         .        .        .        .        .        *X       .        .        .        .        .
 922.90         .        .        .        .        .        X.       .        .        .        .        .
 918.90         .        .        .        .        .        *X       .        .        .        .        .
 914.90         .        .        .        .        .         X       .        .        .        .        .
 910.90         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE OCT. 6, 1987
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 3 B-B MEAN BIAS = -13 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

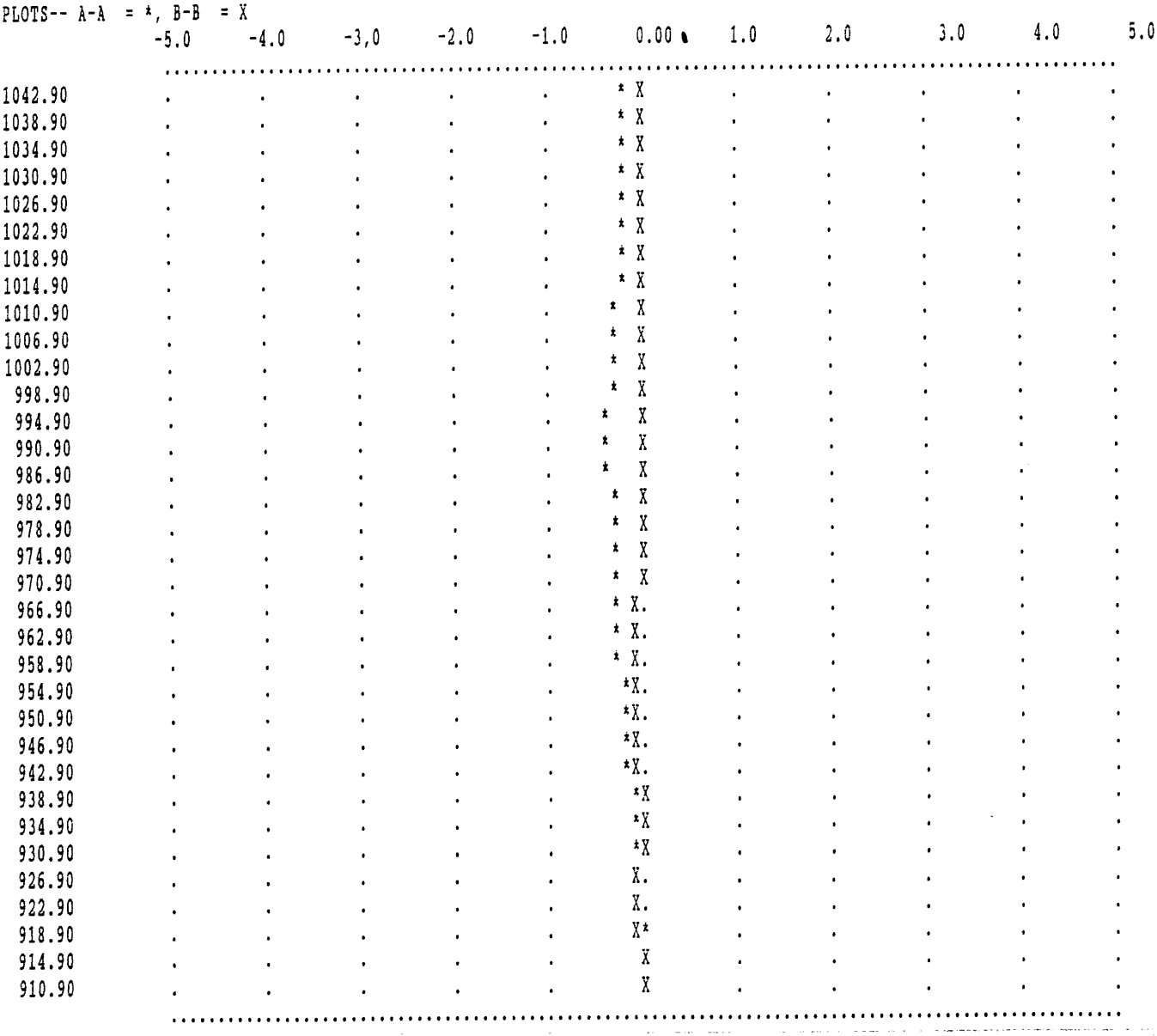
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.283	-.085
1040.90	-.226	-.043
1038.90	-.218	-.010
1036.90	-.226	.007
1034.90	-.229	-.009
1032.90	-.230	-.013
1030.90	-.227	-.010
1028.90	-.224	-.008
1026.90	-.223	-.003
1024.90	-.229	.007
1022.90	-.232	.002
1020.90	-.224	-.002
1018.90	-.224	.013
1016.90	-.242	.016
1014.90	-.247	.009
1012.90	-.239	.014
1010.90	-.250	.016
1008.90	-.259	.006
1006.90	-.280	-.005
1004.90	-.291	-.019
1002.90	-.290	-.019
1000.90	-.291	-.022
998.90	-.299	-.025
996.90	-.333	-.030
994.90	-.383	-.029
992.90	-.394	-.031
990.90	-.390	-.037
988.90	-.380	-.043
986.90	-.369	-.047
984.90	-.358	-.046
982.90	-.349	-.045
980.90	-.342	-.035
978.90	-.336	-.028
976.90	-.326	-.025
974.90	-.325	-.017
972.90	-.317	-.026
970.90	-.309	-.034
968.90	-.302	-.042
966.90	-.299	-.050
964.90	-.289	-.064
962.90	-.281	-.075
960.90	-.272	-.088
958.90	-.268	-.096
956.90	-.258	-.104
954.90	-.242	-.109
952.90	-.235	-.109
950.90	-.228	-.128
948.90	-.204	-.128
946.90	-.188	-.115
944.90	-.175	-.097
942.90	-.170	-.082
940.90	-.157	-.060

938.90	-.142	-.046
936.90	-.131	-.034
934.90	-.137	-.017
932.90	-.137	-.020
930.90	-.142	-.028
928.90	-.144	-.035
926.90	-.131	-.041
924.90	-.121	-.059
922.90	-.098	-.068
920.90	-.089	-.077
918.90	-.060	-.086
916.90	-.047	-.079
914.90	-.032	-.067
912.90	-.013	-.032
910.90	-.001	-.005
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.34
B-B DEFLECTION = -.13
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5

PLOTS-- A-A = *, B-B = X



1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
DATE NOV. 18, 1987
BOTTOM ELEV. 908.9
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
A-A MEAN BIAS = 3 B-B MEAN BIAS = -21 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1042.90	-.238	-.142
1040.90	-.171	-.118
1038.90	-.166	-.081
1036.90	-.174	-.065
1034.90	-.179	-.073
1032.90	-.184	-.077
1030.90	-.181	-.076
1028.90	-.181	-.070
1026.90	-.182	-.064
1024.90	-.188	-.059
1022.90	-.191	-.063
1020.90	-.185	-.066
1018.90	-.187	-.048
1016.90	-.208	-.043
1014.90	-.213	-.049
1012.90	-.206	-.041
1010.90	-.218	-.044
1008.90	-.229	-.059
1006.90	-.253	-.071
1004.90	-.269	-.086
1002.90	-.271	-.089
1000.90	-.274	-.089
998.90	-.285	-.090
996.90	-.320	-.094
994.90	-.373	-.092
992.90	-.385	-.085
990.90	-.382	-.089
988.90	-.374	-.089
986.90	-.363	-.091
984.90	-.353	-.088
982.90	-.344	-.084
980.90	-.338	-.071
978.90	-.334	-.061
976.90	-.325	-.056
974.90	-.325	-.044
972.90	-.317	-.046
970.90	-.308	-.054
968.90	-.301	-.064
966.90	-.297	-.070
964.90	-.287	-.084
962.90	-.280	-.095
960.90	-.270	-.102
958.90	-.267	-.106
956.90	-.256	-.113
954.90	-.239	-.113
952.90	-.232	-.111
950.90	-.226	-.124
948.90	-.206	-.122
946.90	-.189	-.105
944.90	-.176	-.089
942.90	-.172	-.075
940.90	-.163	-.053

938.90	-.150	-.038
936.90	-.139	-.028
934.90	-.142	-.014
932.90	-.122	-.014
930.90	-.122	-.020
928.90	-.121	-.028
926.90	-.107	-.033
924.90	-.097	-.047
922.90	-.076	-.054
920.90	-.067	-.059
918.90	-.058	-.065
916.90	-.040	-.064
914.90	-.028	-.059
912.90	-.011	-.031
910.90	.001	-.009
908.90	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS
A-A DEFLECTION = -.30
B-B DEFLECTION = -.16
TOP ELEVATION OF TUBE = 1044.90

1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-5
PLOTS-- A-A = *, B-B = X

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                -5.0     -4.0     -3,0     -2.0     -1.0      0.00     1.0      2.0      3.0      4.0      5.0
                ..........................................................................................
1042.90         .        .        .        .        .       *X.       .        .        .        .        .
1038.90         .        .        .        .        .       *X.       .        .        .        .        .
1034.90         .        .        .        .        .       *X.       .        .        .        .        .
1030.90         .        .        .        .        .       *X.       .        .        .        .        .
1026.90         .        .        .        .        .       *X.       .        .        .        .        .
1022.90         .        .        .        .        .       *X.       .        .        .        .        .
1018.90         .        .        .        .        .       * X       .        .        .        .        .
1014.90         .        .        .        .        .       * X       .        .        .        .        .
1010.90         .        .        .        .        .       *X.       .        .        .        .        .
1006.90         .        .        .        .        .       * X.      .        .        .        .        .
1002.90         .        .        .        .        .       * X.      .        .        .        .        .
 998.90         .        .        .        .        .       * X.      .        .        .        .        .
 994.90         .        .        .        .        .       *  X.     .        .        .        .        .
 990.90         .        .        .        .        .       *  X.     .        .        .        .        .
 986.90         .        .        .        .        .       *  X.     .        .        .        .        .
 982.90         .        .        .        .        .       * X.      .        .        .        .        .
 978.90         .        .        .        .        .       * X.      .        .        .        .        .
 974.90         .        .        .        .        .       *  X      .        .        .        .        .
 970.90         .        .        .        .        .       * X.      .        .        .        .        .
 966.90         .        .        .        .        .       * X.      .        .        .        .        .
 962.90         .        .        .        .        .       * X.      .        .        .        .        .
 958.90         .        .        .        .        .       * X.      .        .        .        .        .
 954.90         .        .        .        .        .       *X.       .        .        .        .        .
 950.90         .        .        .        .        .       *X.       .        .        .        .        .
 946.90         .        .        .        .        .       *X.       .        .        .        .        .
 942.90         .        .        .        .        .       *X.       .        .        .        .        .
 938.90         .        .        .        .        .        *X       .        .        .        .        .
 934.90         .        .        .        .        .        *X       .        .        .        .        .
 930.90         .        .        .        .        .        *X       .        .        .        .        .
 926.90         .        .        .        .        .        *X       .        .        .        .        .
 922.90         .        .        .        .        .        X.       .        .        .        .        .
 918.90         .        .        .        .        .        X*       .        .        .        .        .
 914.90         .        .        .        .        .         X       .        .        .        .        .
 910.90         .        .        .        .        .         X       .        .        .        .        .
                ..........................................................................................
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1**** 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS
DATE JAN. 23, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 98 B-B MEAN BIAS = 27 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

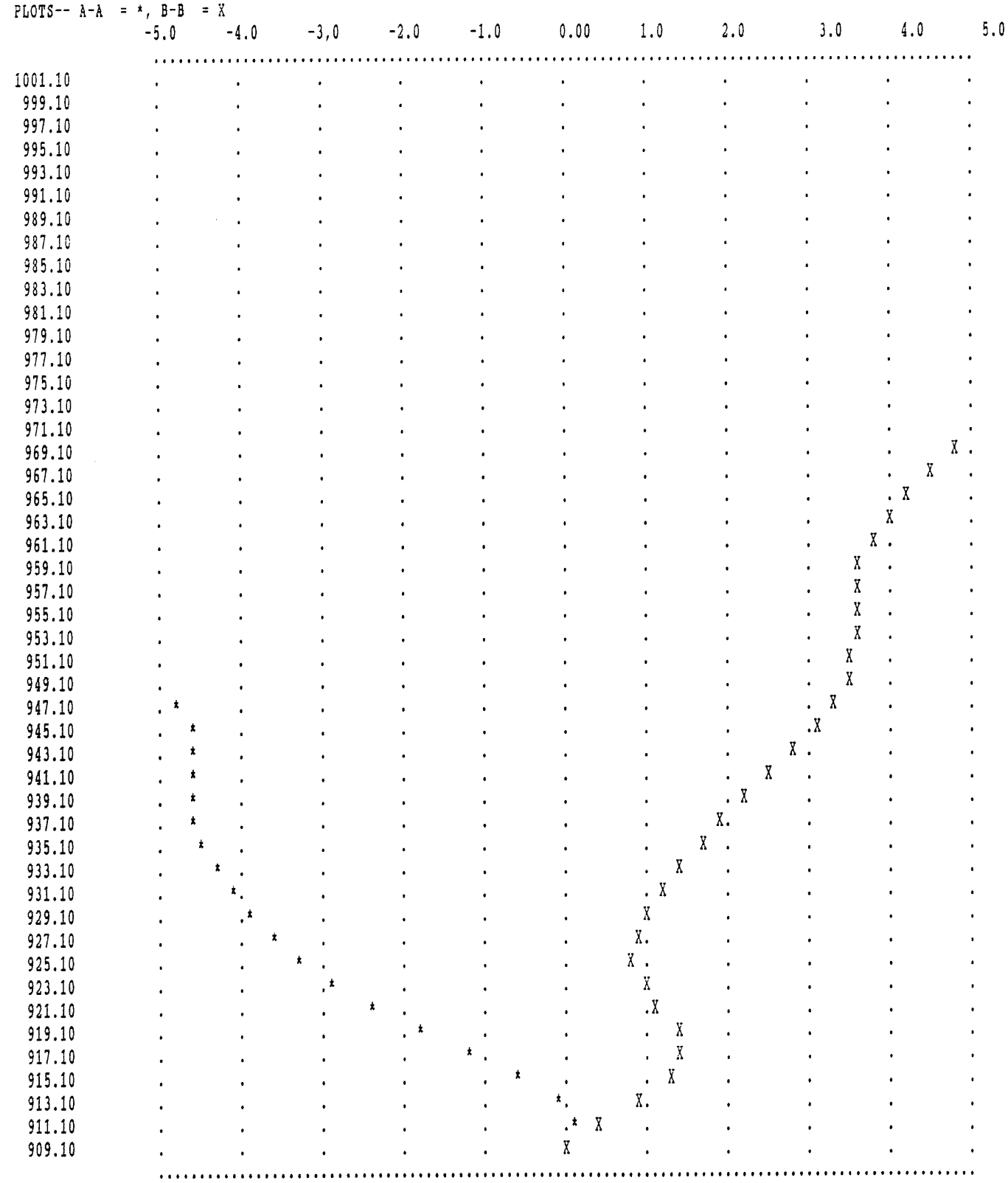
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	-11.594	8.576
999.10	-11.289	8.552
997.10	-11.013	8.452
995.10	-10.695	8.416
993.10	-10.253	8.453
991.10	-9.791	8.430
989.10	-9.325	8.254
987.10	-8.855	7.935
985.10	-8.551	7.655
983.10	-8.375	7.436
981.10	-8.251	7.117
979.10	-8.179	6.694
977.10	-8.068	6.202
975.10	-7.852	5.786
973.10	-7.581	5.441
971.10	-7.373	5.127
969.10	-7.292	4.824
967.10	-7.238	4.504
965.10	-7.152	4.232
963.10	-7.012	4.016
961.10	-6.824	3.817
959.10	-6.616	3.619
957.10	-6.357	3.562
955.10	-6.120	3.584
953.10	-5.811	3.561
951.10	-5.419	3.524
949.10	-5.044	3.457
947.10	-4.786	3.321
945.10	-4.645	3.078
943.10	-4.564	2.797
941.10	-4.552	2.515
939.10	-4.562	2.205
937.10	-4.558	1.905
935.10	-4.499	1.654
933.10	-4.350	1.420
931.10	-4.105	1.215
929.10	-3.868	1.037
927.10	-3.617	.859
925.10	-3.303	.820
923.10	-2.874	.955
921.10	-2.374	1.148
919.10	-1.847	1.354
917.10	-1.228	1.433
915.10	-.584	1.300
913.10	-.080	.923
911.10	.123	.406
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -11.90
B-B DEFLECTION = 8.60
TOP ELEVATION OF TUBE = 1003.10

1 PLOT OF 86-0123 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6 INITIAL READINGS

PLOTS-- A-A = *, B-B = X

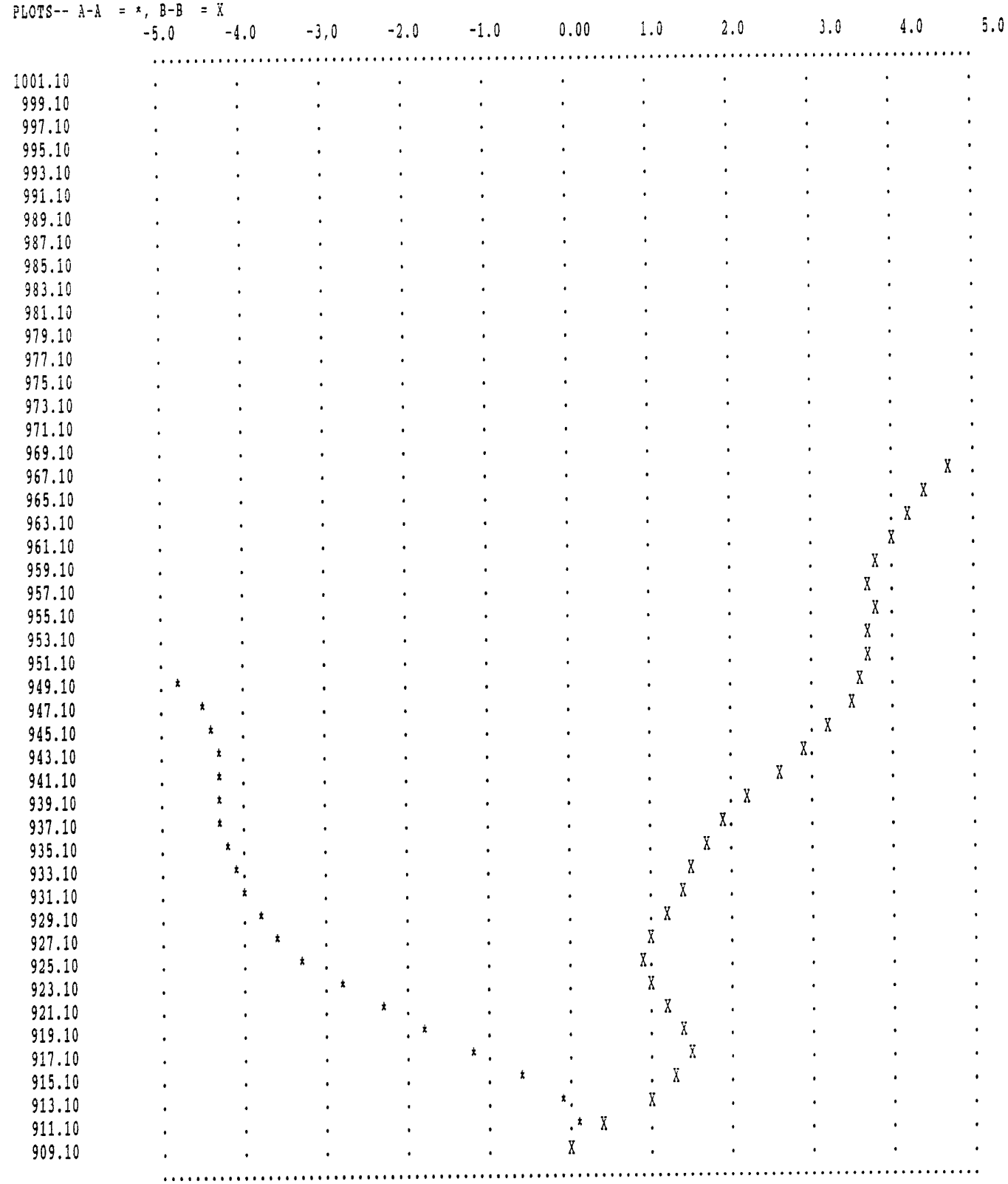


1**** 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE APR. 1, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
A-A MEAN BIAS = 106 B-B MEAN BIAS = 19 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	-10.938	8.936
999.10	-10.658	8.927
997.10	-10.398	8.822
995.10	-10.093	8.745
993.10	-9.665	8.770
991.10	-9.221	8.750
989.10	-8.765	8.558
987.10	-8.315	8.219
985.10	-8.028	7.919
983.10	-7.868	7.700
981.10	-7.760	7.379
979.10	-7.707	6.962
977.10	-7.611	6.457
975.10	-7.406	6.029
973.10	-7.147	5.677
971.10	-6.958	5.345
969.10	-6.899	5.050
967.10	-6.861	4.717
965.10	-6.785	4.438
963.10	-6.656	4.214
961.10	-6.481	4.004
959.10	-6.284	3.799
957.10	-6.042	3.746
955.10	-5.814	3.765
953.10	-5.516	3.737
951.10	-5.136	3.692
949.10	-4.778	3.612
947.10	-4.541	3.467
945.10	-4.424	3.225
943.10	-4.343	2.924
941.10	-4.297	2.585
939.10	-4.269	2.235
937.10	-4.250	1.936
935.10	-4.221	1.721
933.10	-4.144	1.546
931.10	-4.007	1.385
929.10	-3.828	1.202
927.10	-3.593	.986
925.10	-3.273	.905
923.10	-2.819	1.034
921.10	-2.299	1.221
919.10	-1.787	1.402
917.10	-1.189	1.469
915.10	-.556	1.345
913.10	-.076	.953
911.10	.102	.409
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = -11.22
B-B DEFLECTION = 8.94
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X

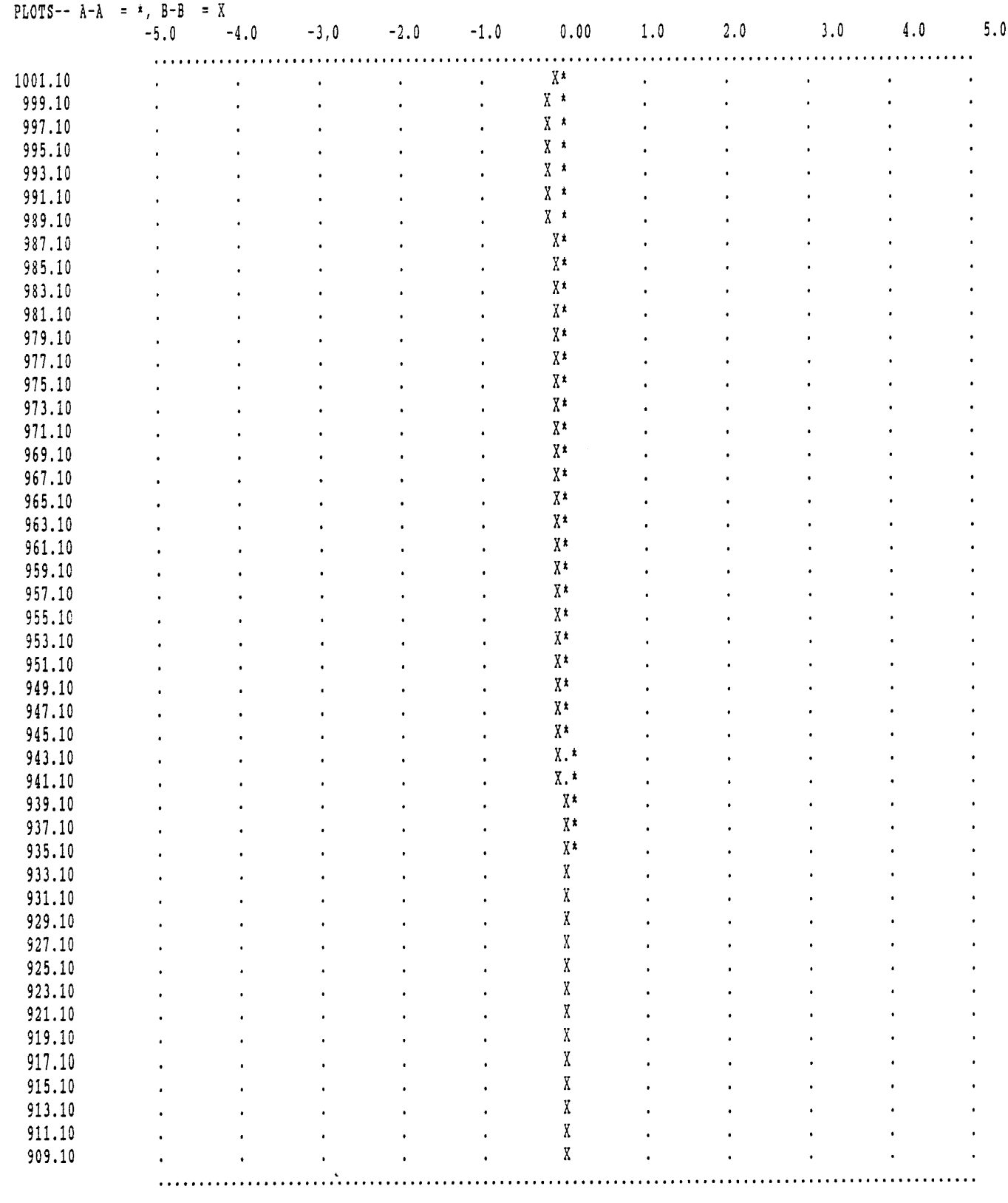


1**** 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE MAY 13, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 78 B-B MEAN BIAS = 23 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.016	-.142
999.10	.013	-.189
997.10	.008	-.164
995.10	.016	-.166
993.10	.017	-.157
991.10	.019	-.169
989.10	.017	-.153
987.10	.022	-.148
985.10	.026	-.127
983.10	.027	-.131
981.10	.029	-.131
979.10	.032	-.127
977.10	.033	-.119
975.10	.034	-.110
973.10	.035	-.105
971.10	.035	-.095
969.10	.036	-.104
967.10	.036	-.097
965.10	.036	-.088
963.10	.037	-.085
961.10	.037	-.080
959.10	.039	-.068
957.10	.042	-.060
955.10	.043	-.058
953.10	.043	-.061
951.10	.044	-.070
949.10	.044	-.070
947.10	.044	-.067
945.10	.046	-.070
943.10	.056	-.056
941.10	.068	-.053
939.10	.074	-.050
937.10	.069	-.041
935.10	.057	-.026
933.10	.049	-.024
931.10	.044	-.015
929.10	.035	-.017
927.10	.035	-.014
925.10	.033	-.008
923.10	.031	-.007
921.10	.031	-.006
919.10	.025	-.014
917.10	.021	-.003
915.10	.020	.002
913.10	.018	-.001
911.10	.009	-.001
909.10	.000	.000

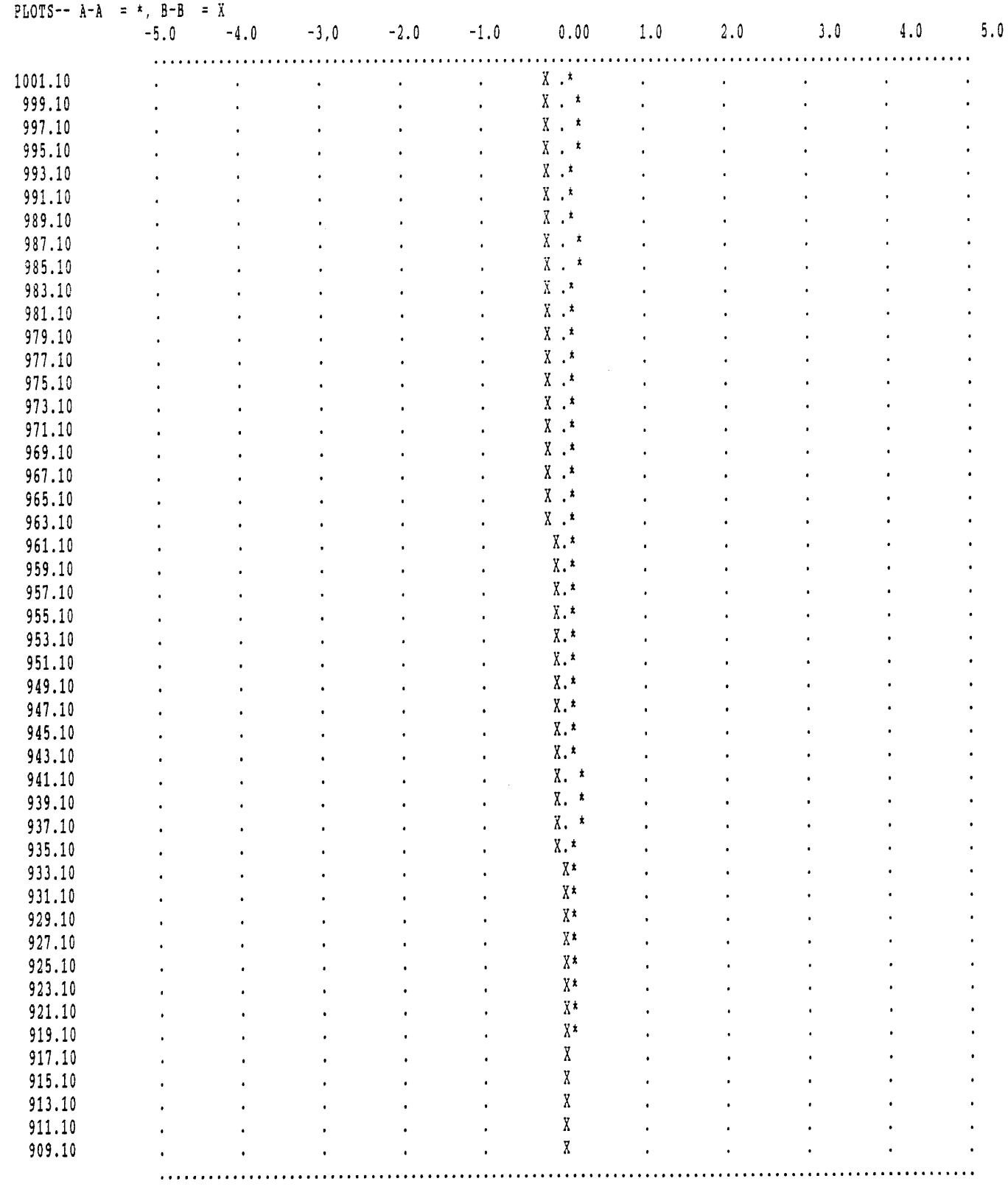
DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .02
B-B DEFLECTION = -.09
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0513 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X



DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .12
B-B DEFLECTION = -.11
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0616 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X

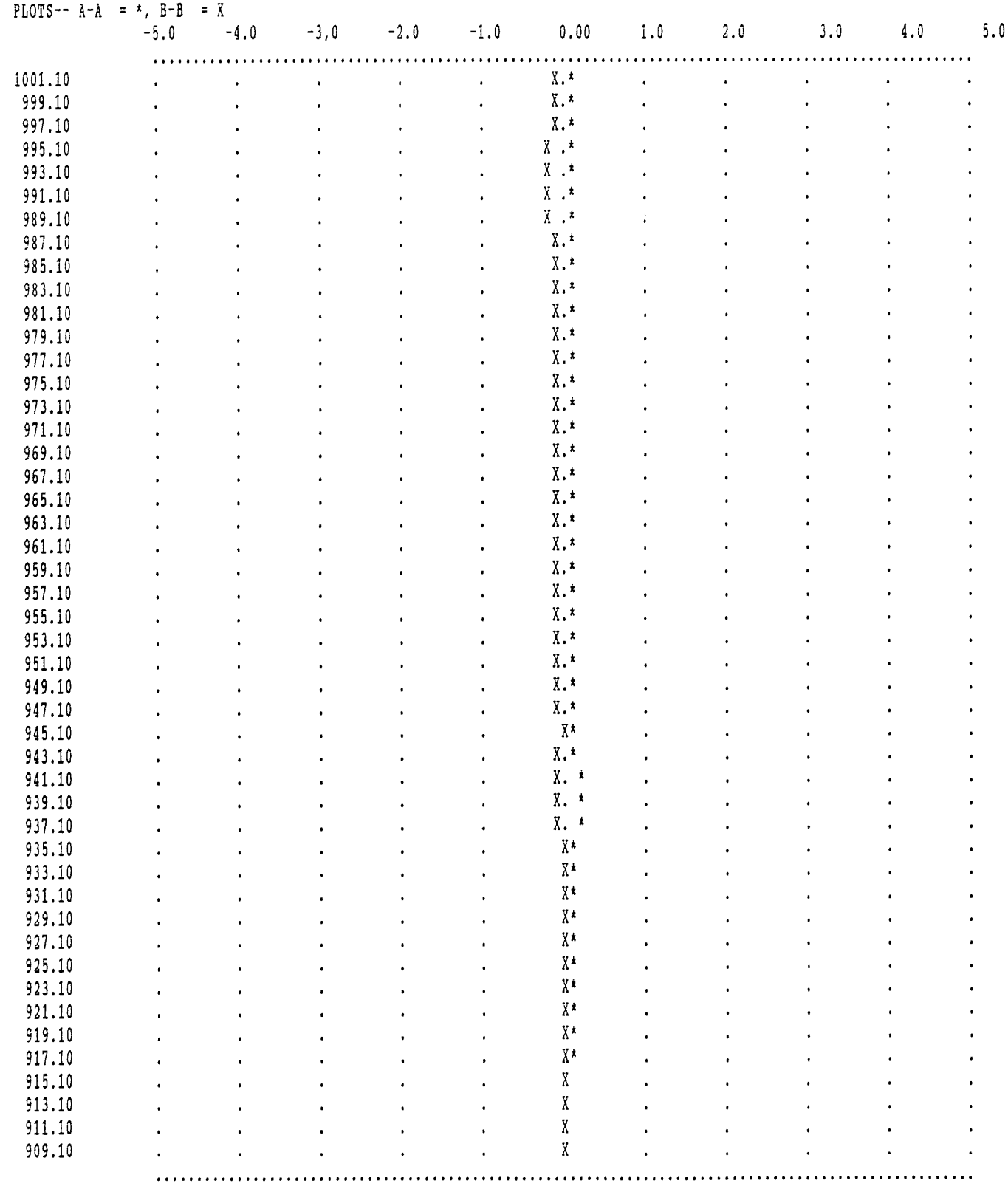


1**** 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE JULY 16, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 109 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.124	-.122
999.10	.118	-.148
997.10	.122	-.134
995.10	.121	-.151
993.10	.121	-.157
991.10	.119	-.163
989.10	.118	-.155
987.10	.121	-.149
985.10	.122	-.136
983.10	.116	-.140
981.10	.089	-.143
979.10	.094	-.149
977.10	.094	-.142
975.10	.092	-.136
973.10	.091	-.127
971.10	.091	-.122
969.10	.092	-.118
967.10	.091	-.118
965.10	.095	-.115
963.10	.098	-.112
961.10	.098	-.110
959.10	.099	-.101
957.10	.102	-.080
955.10	.104	-.068
953.10	.106	-.062
951.10	.107	-.058
949.10	.107	-.053
947.10	.107	-.050
945.10	.112	-.050
943.10	.130	-.052
941.10	.154	-.062
939.10	.166	-.065
937.10	.158	-.052
935.10	.137	-.027
933.10	.117	-.008
931.10	.097	.002
929.10	.079	.002
927.10	.081	.005
925.10	.078	.008
923.10	.076	.015
921.10	.073	.016
919.10	.062	.008
917.10	.051	.010
915.10	.045	.008
913.10	.037	-.010
911.10	.018	-.006
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .13
B-B DEFLECTION = -.10
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0716 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X

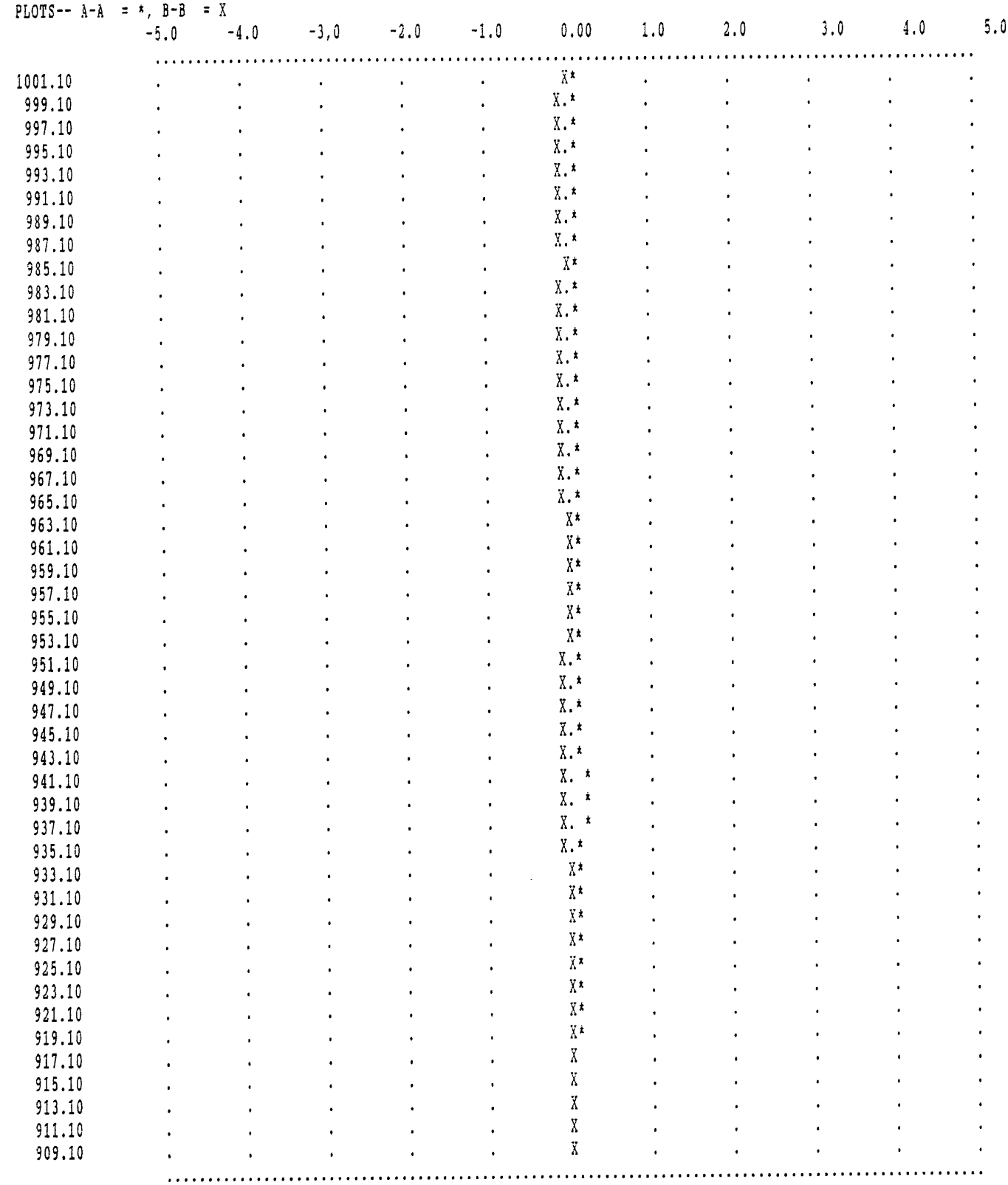


1**** 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE AUG. 19, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 87 B-B MEAN BIAS = 22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.112	-.023
999.10	.118	-.069
997.10	.120	-.055
995.10	.117	-.065
993.10	.115	-.068
991.10	.110	-.068
989.10	.108	-.054
987.10	.109	-.053
985.10	.107	-.043
983.10	.098	-.058
981.10	.100	-.061
979.10	.102	-.062
977.10	.098	-.060
975.10	.094	-.061
973.10	.092	-.063
971.10	.090	-.059
969.10	.088	-.064
967.10	.086	-.056
965.10	.089	-.050
963.10	.091	-.049
961.10	.091	-.044
959.10	.091	-.035
957.10	.096	-.028
955.10	.098	-.037
953.10	.101	-.043
951.10	.104	-.058
949.10	.106	-.055
947.10	.106	-.053
945.10	.110	-.062
943.10	.132	-.068
941.10	.161	-.089
939.10	.176	-.104
937.10	.168	-.095
935.10	.143	-.066
933.10	.117	-.039
931.10	.094	-.022
929.10	.073	-.026
927.10	.077	-.023
925.10	.074	-.019
923.10	.069	-.007
921.10	.066	.004
919.10	.055	.000
917.10	.045	.006
915.10	.038	.010
913.10	.031	-.001
911.10	.016	.002
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .10
B-B DEFLECTION = .02
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0819 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X

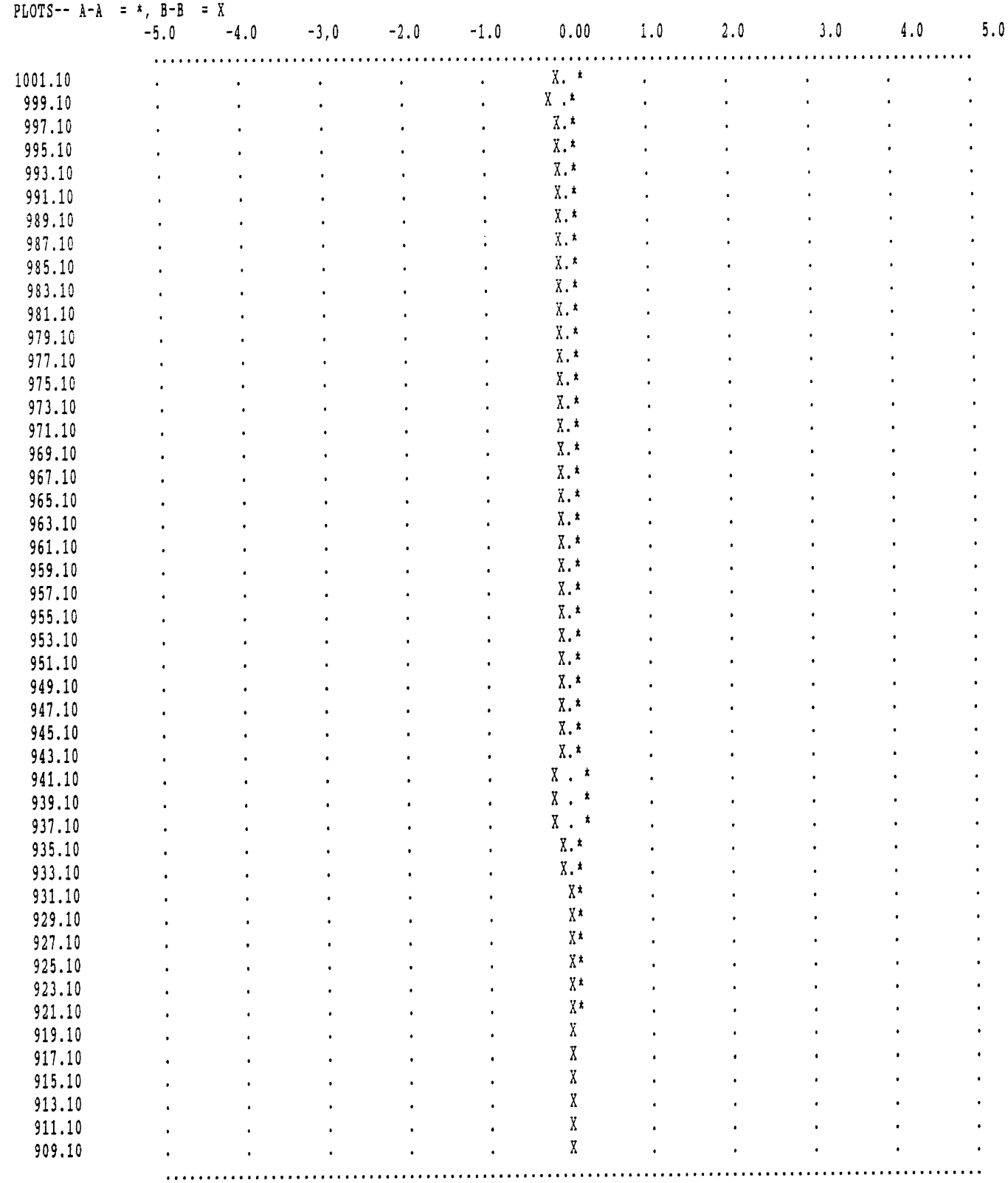


1**** 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE SEP. 22, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 81 B-B MEAN BIAS = 28 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.152	-.113
999.10	.140	-.153
997.10	.139	-.131
995.10	.139	-.131
993.10	.138	-.136
991.10	.136	-.133
989.10	.136	-.121
987.10	.137	-.120
985.10	.137	-.111
983.10	.131	-.121
981.10	.131	-.124
979.10	.133	-.125
977.10	.130	-.113
975.10	.126	-.107
973.10	.122	-.110
971.10	.121	-.098
969.10	.116	-.106
967.10	.113	-.099
965.10	.115	-.097
963.10	.116	-.094
961.10	.116	-.090
959.10	.115	-.079
957.10	.118	-.065
955.10	.119	-.069
953.10	.122	-.076
951.10	.124	-.090
949.10	.124	-.094
947.10	.121	-.088
945.10	.119	-.100
943.10	.139	-.134
941.10	.164	-.187
939.10	.179	-.205
937.10	.170	-.178
935.10	.146	-.119
933.10	.120	-.063
931.10	.094	-.034
929.10	.069	-.024
927.10	.074	-.017
925.10	.068	-.020
923.10	.061	-.016
921.10	.059	-.012
919.10	.047	-.020
917.10	.033	-.007
915.10	.025	.002
913.10	.023	-.014
911.10	.013	-.005
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .16
B-B DEFLECTION = -.07
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-0922 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X

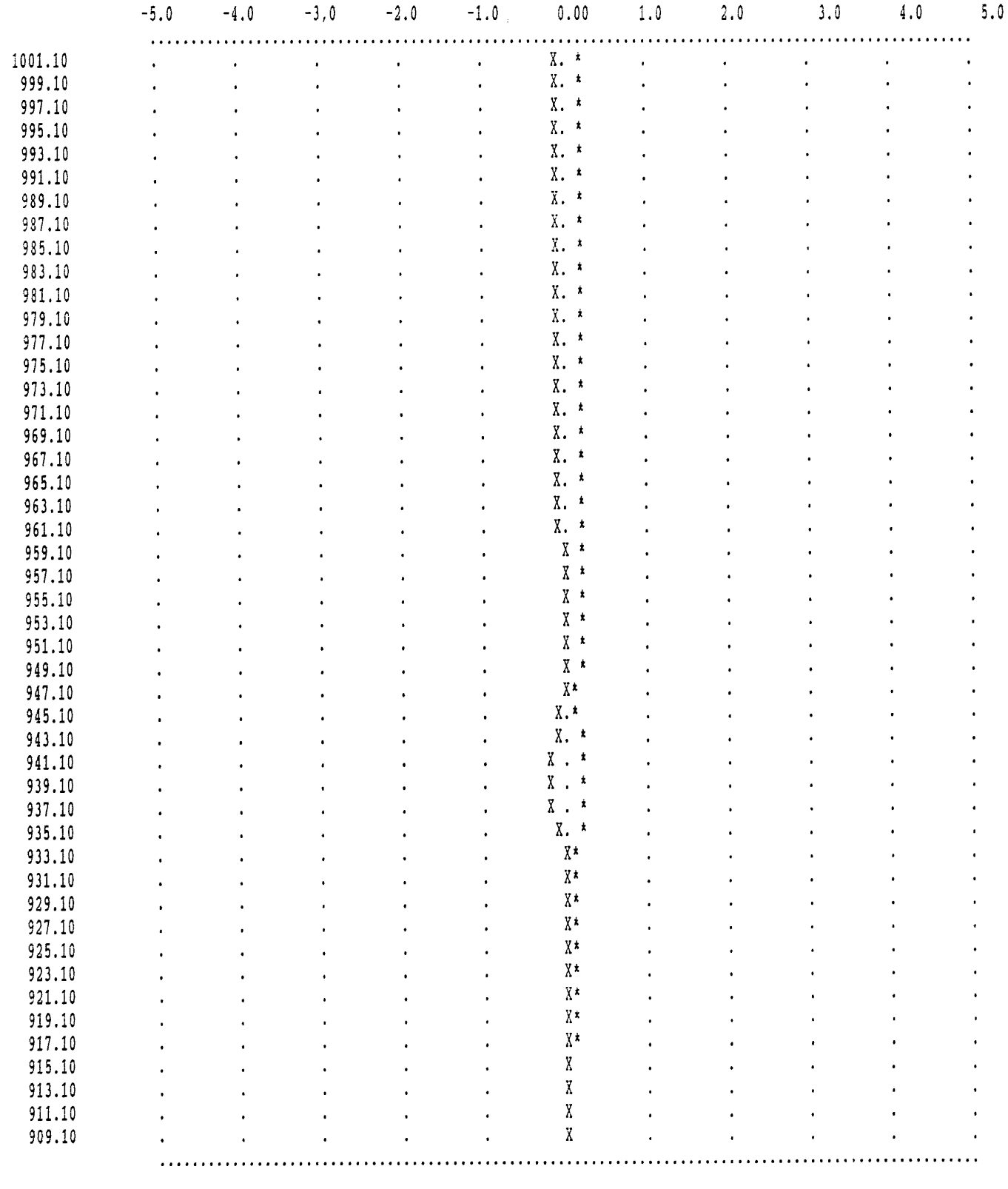


1**** 86-1108 BALL MOUNTAIN DAM, JAMAICA VT SI-85-6
DATE NOV. 8, 1986
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 87 B-B MEAN BIAS = 30 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.221	-.070
999.10	.198	-.124
997.10	.189	-.102
995.10	.187	-.112
993.10	.187	-.126
991.10	.184	-.121
989.10	.184	-.104
987.10	.184	-.101
985.10	.183	-.088
983.10	.179	-.093
981.10	.180	-.091
979.10	.182	-.091
977.10	.181	-.085
975.10	.178	-.081
973.10	.175	-.079
971.10	.174	-.074
969.10	.169	-.079
967.10	.164	-.072
965.10	.164	-.060
963.10	.167	-.052
961.10	.164	-.053
959.10	.163	-.038
957.10	.161	-.023
955.10	.158	-.024
953.10	.158	-.024
951.10	.157	-.045
949.10	.152	-.048
947.10	.145	-.050
945.10	.142	-.070
943.10	.160	-.123
941.10	.184	-.194
939.10	.197	-.230
937.10	.187	-.200
935.10	.161	-.120
933.10	.135	-.047
931.10	.110	-.017
929.10	.086	-.023
927.10	.091	-.016
925.10	.086	-.006
923.10	.082	.009
921.10	.080	.014
919.10	.067	.005
917.10	.058	.011
915.10	.048	.013
913.10	.037	-.012
911.10	.018	.000
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .24
B-B DEFLECTION = -.02
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 86-1108 BALL MOUNTAIN DAM, JAMAICA VT SI-85-6
PLOTS-- A-A = *, B-B = X

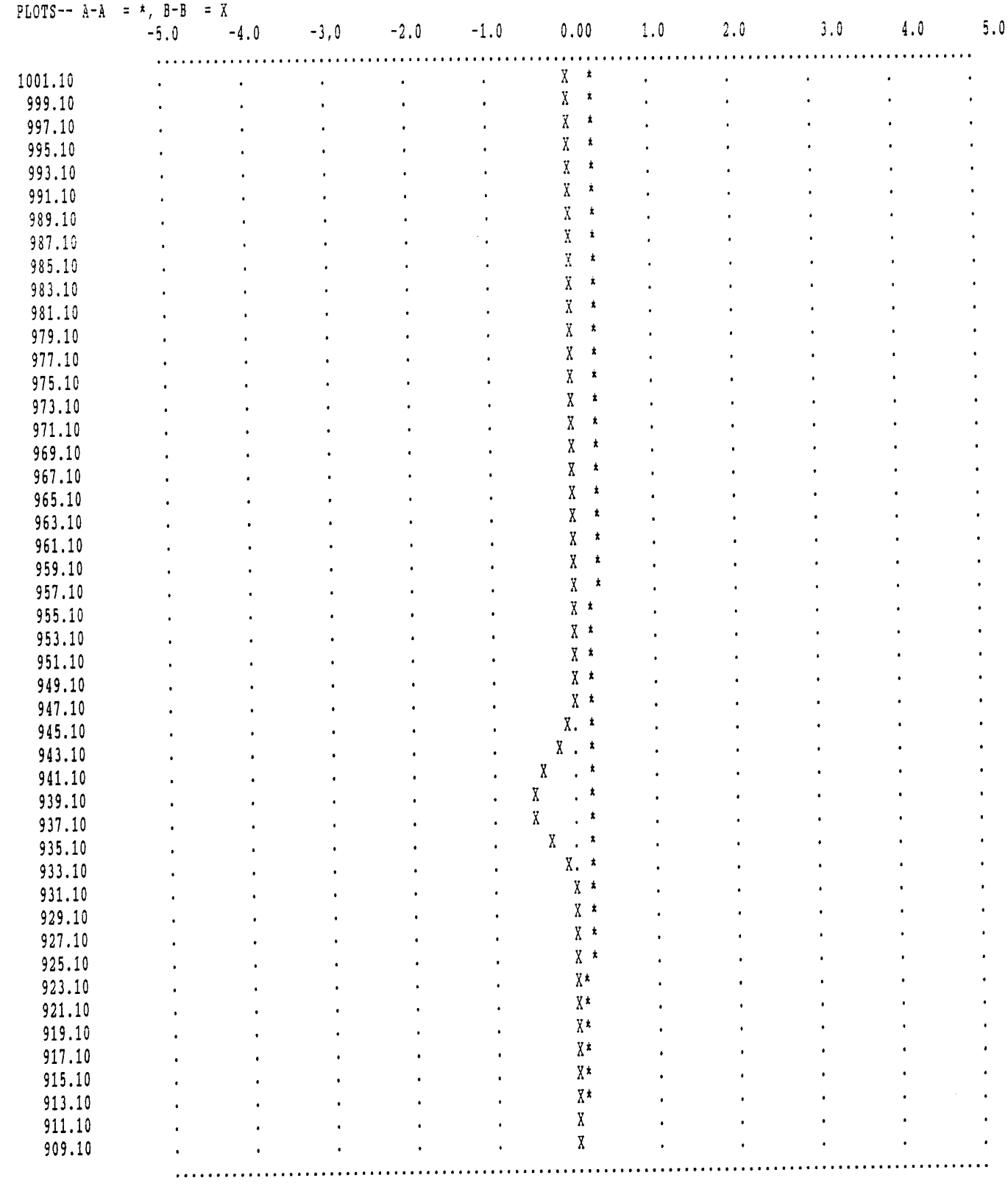


1**** 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE MAY 8, 1987
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 99 B-B MEAN BIAS = -43 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.338	.019
999.10	.330	.014
997.10	.327	.023
995.10	.349	.015
993.10	.346	.010
991.10	.320	.005
989.10	.298	-.011
987.10	.290	-.023
985.10	.302	-.002
983.10	.306	-.007
981.10	.304	-.013
979.10	.293	-.019
977.10	.284	-.014
975.10	.284	-.028
973.10	.280	-.029
971.10	.272	-.022
969.10	.266	-.037
967.10	.258	-.034
965.10	.260	-.031
963.10	.263	-.026
961.10	.260	-.029
959.10	.258	-.020
957.10	.251	-.011
955.10	.248	-.017
953.10	.249	-.023
951.10	.247	-.037
949.10	.236	-.041
947.10	.219	-.044
945.10	.202	-.085
943.10	.211	-.225
941.10	.225	-.415
939.10	.231	-.514
937.10	.223	-.450
935.10	.203	-.278
933.10	.188	-.119
931.10	.172	-.043
929.10	.169	-.040
927.10	.156	-.034
925.10	.150	-.022
923.10	.147	-.006
921.10	.143	.005
919.10	.118	.005
917.10	.104	.013
915.10	.090	.011
913.10	.068	-.019
911.10	.030	-.008
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .35
B-B DEFLECTION = .02
TOP ELEVATION OF TUBE = 1003.10
1 PLOT OF 87-0508 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X



1**** 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE JUNE 22, 1987
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 70 B-B MEAN BIAS = 72 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

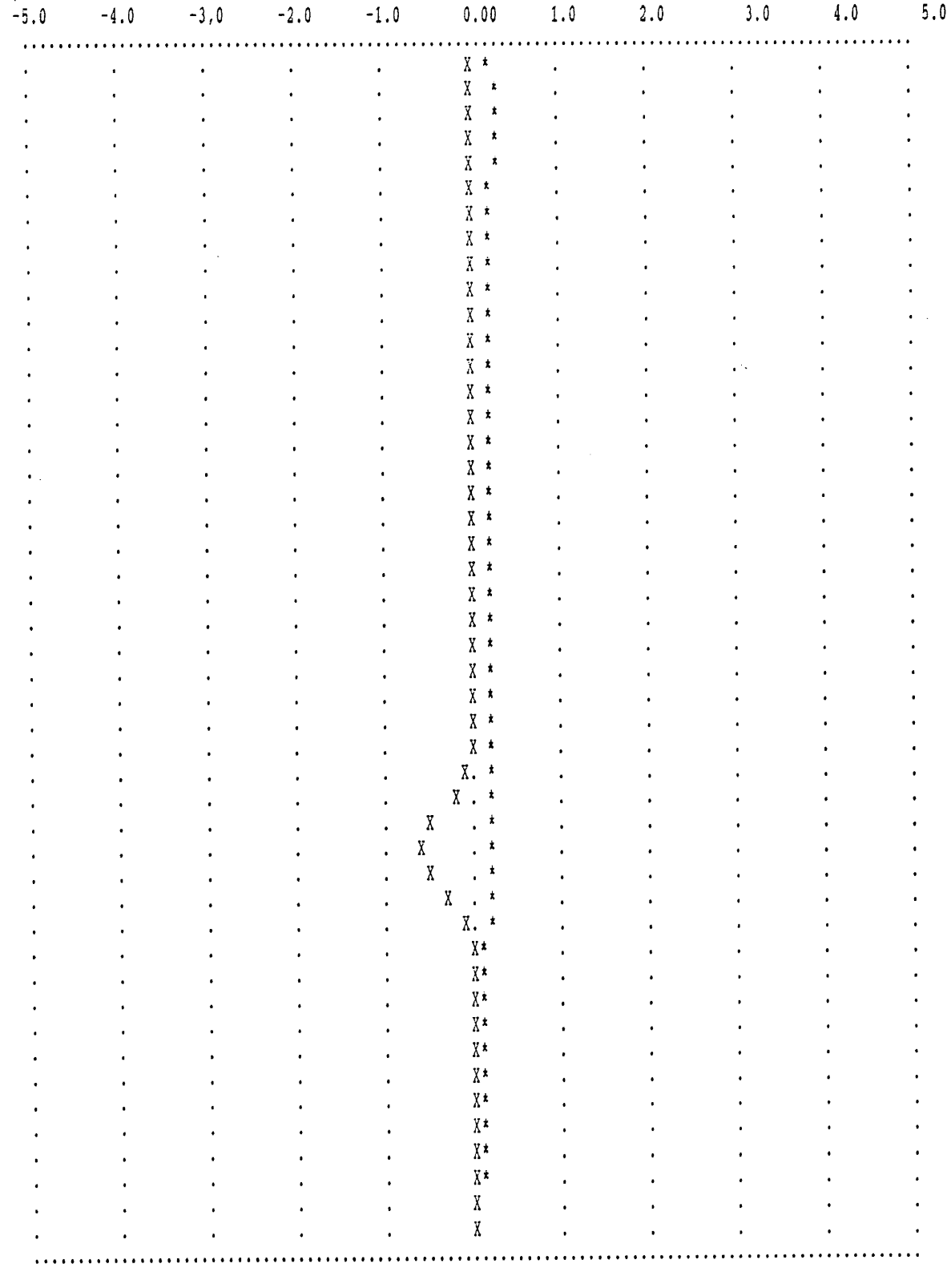
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.242	-.044
999.10	.252	-.026
997.10	.253	-.012
995.10	.268	-.029
993.10	.261	-.027
991.10	.239	-.028
989.10	.221	-.038
987.10	.214	-.047
985.10	.229	-.028
983.10	.235	-.036
981.10	.238	-.034
979.10	.226	-.035
977.10	.223	-.030
975.10	.220	-.035
973.10	.219	-.041
971.10	.216	-.031
969.10	.211	-.037
967.10	.203	-.028
965.10	.206	-.018
963.10	.211	-.011
961.10	.212	-.007
959.10	.211	.010
957.10	.209	.026
955.10	.208	.023
953.10	.212	.029
951.10	.214	.017
949.10	.206	.014
947.10	.191	.007
945.10	.183	-.058
943.10	.197	-.247
941.10	.212	-.488
939.10	.215	-.614
937.10	.202	-.544
935.10	.178	-.332
933.10	.160	-.119
931.10	.144	-.018
929.10	.121	-.015
927.10	.132	-.005
925.10	.128	.008
923.10	.125	.021
921.10	.123	.025
919.10	.099	.022
917.10	.085	.034
915.10	.074	.025
913.10	.058	-.006
911.10	.025	-.004
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .23
B-B DEFLECTION = -.06
TOP ELEVATION OF TUBE = 1003.10

1 PLOT OF 87-0622 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

PLOTS-- A-A = *, B-B = X



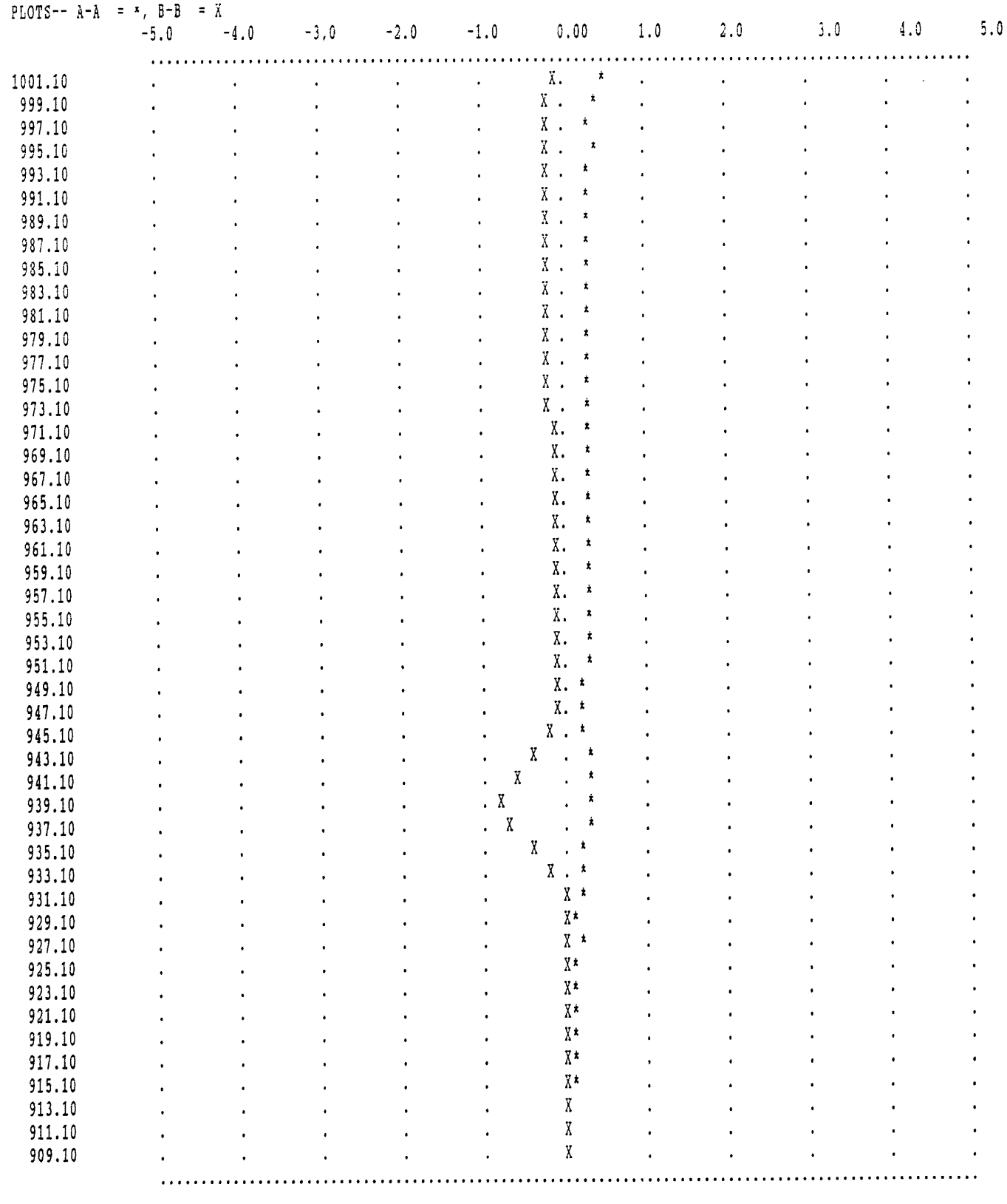
1**** 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE OCT. 6, 1987
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 5 B-B MEAN BIAS = -16 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.469	-.078
999.10	.381	-.165
997.10	.341	-.202
995.10	.352	-.213
993.10	.344	-.191
991.10	.319	-.194
989.10	.296	-.206
987.10	.286	-.197
985.10	.301	-.167
983.10	.304	-.181
981.10	.304	-.181
979.10	.298	-.184
977.10	.298	-.164
975.10	.295	-.159
973.10	.290	-.154
971.10	.284	-.145
969.10	.272	-.146
967.10	.265	-.135
965.10	.265	-.118
963.10	.270	-.115
961.10	.267	-.114
959.10	.265	-.086
957.10	.259	-.063
955.10	.254	-.070
953.10	.256	-.068
951.10	.255	-.076
949.10	.246	-.077
947.10	.233	-.085
945.10	.233	-.160
943.10	.268	-.371
941.10	.306	-.638
939.10	.317	-.778
937.10	.292	-.698
935.10	.241	-.448
933.10	.199	-.193
931.10	.170	-.046
929.10	.147	-.026
927.10	.157	-.009
925.10	.148	.007
923.10	.140	.031
921.10	.137	.038
919.10	.107	.033
917.10	.079	.029
915.10	.060	.020
913.10	.049	-.007
911.10	.022	.002
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .56
B-B DEFLECTION = .01
TOP ELEVATION OF TUBE = 1003.10

1 PLOT OF 87-1006 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
PLOTS-- A-A = *, B-B = X



1**** 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
DATE NOV. 18, 1987
BOTTOM ELEV. 909.1
AA CALIBRATION .0000500
BB CALIBRATION .0000500
INITIAL READINGS TAKEN AT--86-0401 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6
A-A MEAN BIAS = 3 B-B MEAN BIAS = -22 LIMIT USED =10000
5 **LIST OF DEFLECTIONS**

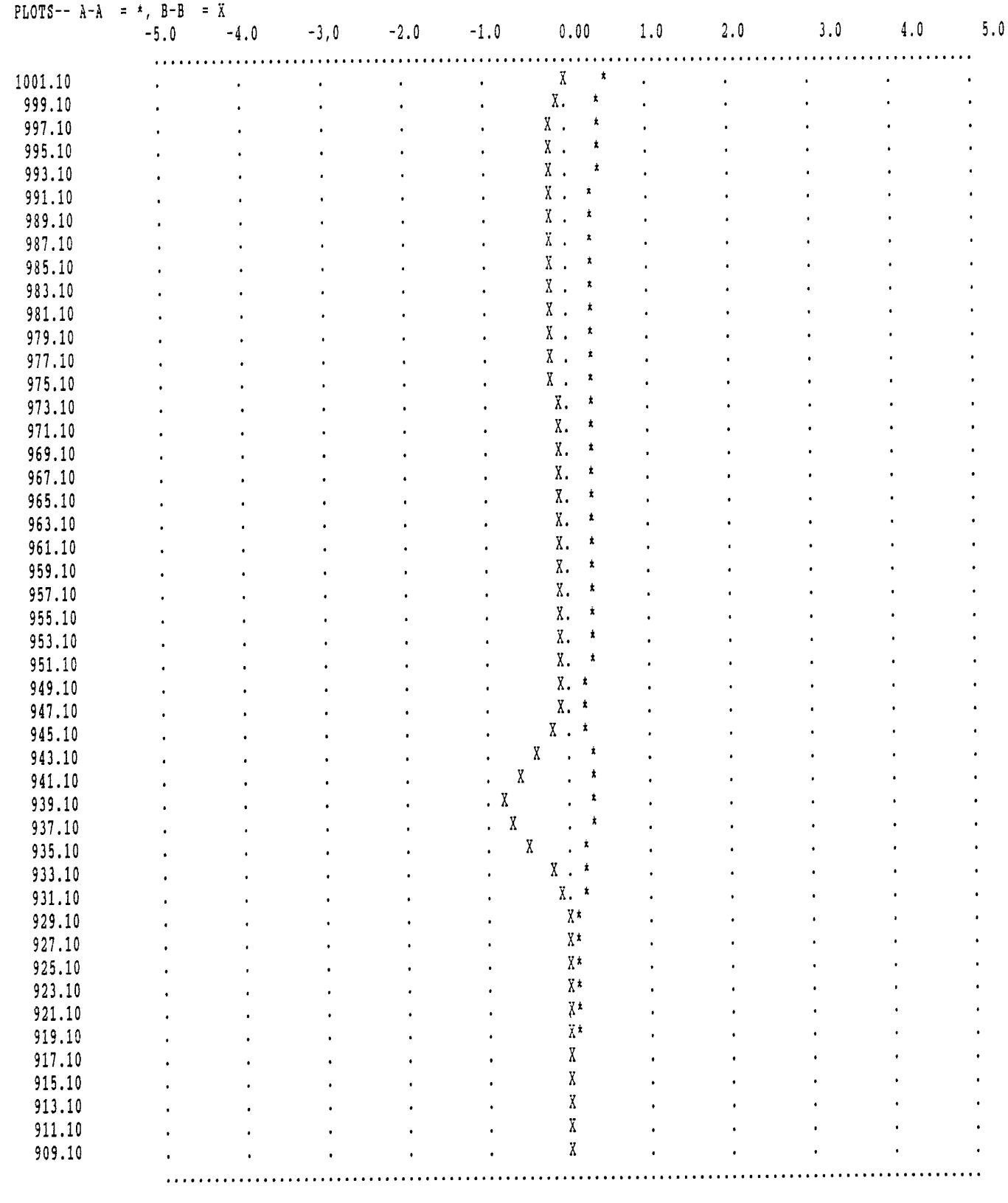
ELEVATION--FEET	A-A DEFLECTION--INCHES	B-B DEFLECTION--INCHES
1001.10	.453	-.046
999.10	.401	-.133
997.10	.363	-.174
995.10	.368	-.190
993.10	.359	-.167
991.10	.332	-.170
989.10	.308	-.178
987.10	.296	-.166
985.10	.311	-.152
983.10	.317	-.169
981.10	.316	-.174
979.10	.314	-.179
977.10	.312	-.159
975.10	.305	-.154
973.10	.300	-.147
971.10	.295	-.136
969.10	.286	-.139
967.10	.277	-.125
965.10	.275	-.110
963.10	.280	-.106
961.10	.274	-.109
959.10	.269	-.078
957.10	.264	-.062
955.10	.258	-.073
953.10	.257	-.072
951.10	.251	-.082
949.10	.245	-.086
947.10	.236	-.098
945.10	.232	-.167
943.10	.253	-.372
941.10	.283	-.617
939.10	.299	-.758
937.10	.286	-.697
935.10	.245	-.466
933.10	.199	-.215
931.10	.160	-.059
929.10	.131	-.031
927.10	.139	-.020
925.10	.125	-.011
923.10	.112	-.007
921.10	.110	.007
919.10	.083	.000
917.10	.049	.007
915.10	.028	.011
913.10	.026	-.016
911.10	.014	-.005
909.10	.000	.000

DEFLECTIONS OF THE TOP OF THE TUBE
EXTRAPOLATED FROM THE LAST TWO COMPUTED DEFLECTIONS

A-A DEFLECTION = .51
B-B DEFLECTION = .04
TOP ELEVATION OF TUBE = 1003.10

1 PLOT OF 87-1118 BALL MOUNTAIN DAM, JAMAICA, VT SI-85-6

PLOTS-- A-A = *, B-B = X



APPENDIX F

FIELD DATA SHEETS

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

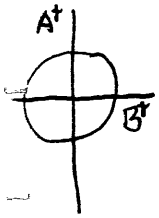
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1985 CALCULATED BY _____ ON _____

READ BY S. Sarkudis / R. Barry CHECKED BY _____ ON _____

INSTRUMENT NO. _____

D. S.



DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
~~138'~~		+376					~~+404~~			
132		+373	-277				+400	-393		
130		+395	-292				+386	-367		
128		+394	-290				+358	-343		
126		+433	-326				+340	-321		
124		+458	-353				+352	-336		
122		+527	-420				+355	-327		
120		+577	-465				+258	-249		
118		+560	-449				+164	-148		
116		+542	-435				+121	-110		
114		+612	-503				+63	-43		
112		+622	-511				-28	+60		
110		+535	-427				-105	+116		
108		+466	-359				-205	+216		
106		+385	-269				-198	+209		
* 105		+325	-213				-158	+178		
* 103		+250	-141				-29	+40		
* 101		+204	-94				+102	-90		
100		+217	-108				+141	-128		
98		+275	-164				+187	-177		
96		+328	-217				+288	-269		
* 95		+338	-224				+297	-279		
* 93		+383	-279				+259	-228		
* 91		+489	-380				+247	-232		
90		+525	-413				+247	-230		
88		+554	-421				+236	-217		
86		+569	-456				+231	-207		
* 85		+581	-470				+225	-201		
* 83		+574	-461				+188	-159		
* 81		+591	-482				+148	-134		
80		+574	-458				+122	-111		
78		+536	-424				+83	-65		
76		+551	-438				+51	-28		
74		+540	-425				+32	-8		
72		+485	-375				-28	+45		
70		+462	-351				-77	+95		
68		+437	-329				-97	+117		
66		+408	-296				-70	+90		
64		+400	-288				-63	+82		
62		+405	-296				-23	+42		
60		+404	-290				+71	-50		
58		+422	-312				+104	-94		
56		+369	-257				+112	-99		

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-1 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Satandis/R. Barry CHECKED BY _____ ON _____

INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spill Way B+	B-	NEW DIFF.	CHANGE
54'		+300	-187				+120	-98		
* 52'		+300	-186				+138	-110		
* 51		+240	-129				+195	-172		
* 49		+198	-89				+240	-222		
48		+178	-67				+250	-230		
46		+133	-21				+234	-217		
44		+79	+29				+192	-170		
* 43		+61	+54				+191	-167		
* 41		-16	+126				+206	-180		
* 39		-33	+151				+235	-214		
38		-14	+128				+241	-215		
36		0	+110				+237	-217		
34		+33	+83				+244	-222		
32		+40	+76				+247	-225		
* 31		+75	+35				+242	-219		
careful * 29		+174	-60				+274	-244		
28		+177	-69				+283	-253		
26		+214	-99				+297	-259		
24		+291	-178				+321	-296		
22		+344	-234				+367	-340		
20		+392	-274				+388	-364		
18		+375	-262				+320	-314		
16		+372	-257				+221	-200		
14		+346	-233				+164	-153		
12		+345	-231				+115	-97		
10		+287	-170				+145	-115		
8		+189	-76				+149	-107		
6		+64	+48				+61	-41		
4		-385	+493				-56	+106		
2		-645	+753				-149	+217		

5' 4.90' 5' 12 Hard ABOVE SAND

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

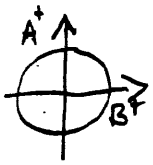
DATE April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, SJS CHECKED BY _____ ON _____

INSTRUMENT NO. _____

Stick up = 0

D.S.



Depth to Sand 4.97

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		+355	-294				+401	-400		
130		+376	-309				+376	-375		
128		+375	-308				+357	-351		
126		+412	-342				+341	-334		
124		+442	-372				+349	-345		
122		+504	-432				+340	-334		
120		+558	-483				+247	-254		
118		+545	-472				+156	-145		
116		+523	-454				+124	-104		
114		+594	-517				+59	-59		
112		+605	-536				-27	+41		
110		+522	-462				-95	+103		
108		+452	-390				-192	+203		
106		+367	-300				-199	+206		
105		+310	-242				-162	+165		
103		+236	-166				-35	+57		
101		+186	-112				+99	-90		
100		+200	-128				+147	-136		
98		+254	-182				+178	-173		
96		+313	-239				+296	-274		
95		+322	-248				+294	-289		
93		+368	-294				+275	-238		
91		+470	-398				+253	-236		
90		+509	-434				+247	-237		
88		+537	-460				+236	-224		
86		+551	-475				+230	-215		
85		+564	-490				+225	-205		
83		+558	-484				+192	-169		
81		+572	-499				+163	-156		
80		+556	-482				+121	-124		
78		+519	-444				+80	-87		
76		+535	-458				+57	-48		
74		+525	-449				+35	-35		
72		+468	-396				-22	+31		
70		+445	-373				-77	+93		
68		+420	-351				-87	+94		
66		+392	-320				-66	+81		
64		+383	-310				-66	+72		
62		+388	-317				-25	+48		
60		+391	-315				+58	-64		
58		+425	-350				+112	-91		
56		+379	-306				+115	-105		
54		+301	-227				+108	-104		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE ~~Apr~~ April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, GJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		+287	-210				+131	-120		
~~52~~										
51		+223	-146				+190	-181		
49		+185	-109				+246	-236		
48		+163	-88				+245	-241		
46		+116	-42				+242	-224		
44		+64	+9				+183	-169		
43		+44	+31				+189	-172		
41		-33	+104				+208	-192		
39		-53	+128				+238	-217		
38		-30	+105				+240	-226		
36		-23	+90				+234	-213		
34		+15	+58				+240	-223		
32		+22	+56				+239	-227		
30		+128	-55				+234	-217		
~~Comfort~~ ~~24~~		~~+158~~					~~+242~~			
28		+158	-88				+272	-258		
26		+192	-119				+286	-263		
24		+274	-199				+317	-307		
22		+327	-256				+354	-348		
20		+377	-298				+381	-372		
18		+360	-285				+336	-318		
16		+356	-280				+221	-210		
14		+332	-255				+171	-153		
12		+329	-254				+116	-100		
10		+271	-194				+138	-115		
8		+170	-103				+140	-119		
6		+57	+20				+50	-45		
4		-385	+460				-100	+100		
2		-658	+739				-219	+195		

30

30 @

3' on cable

Water Encountered At 110 ft Depth

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 85769
DATE May 14, 1986
READ BY SJS/PAD
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		354	-285				409	-369		
130		375	-307				375	-334		
128		374	-304				359	-333		
126		409	-340				325	-309		
124		436	-370				344	-325		
122		501	-428				343	-324		
120		555	-482				258	-239		
118		543	-476				161	-133		
116		520	-451				122	-104		
114		592	-517				65	-45		
112		604	-535				-41	60		
110		520	-447				-105	118		
108		450	-381				-192	222		
106		368	-292				-207	210		
105		309	-236				-169	176		
103		235	-164				-34	63		
101		185	-109				100	-72		
100		199	-127				145	-127		
98		253	-181				184	-156		
96		309	-240				279	-268		
95		322	-246				304	-278		
93		362	-292				260	-232		
91		470	-395				250	-228		
90		505	-432				245	-217		
88		534	-461				241	-217		
86		548	-475				230	-209		
85		561	-489				218	-202		
83		557	-484				189	-154		
81		572	-500				146	-128		
80		554	-482				112	-101		
78		518	-444				77	-68		
76		533	-458				41	-30		
74		523	-448				32	-13		
72		466	-397				-31	47		
70		445	-370				-90	111		
68		419	-347				-85	110		
66		391	-318				-73	101		
64		382	-309				-69	92		
62		387	-317				-32	45		
60		388	-316				64	-47		
58		425	-354				104	-86		
56		384	-312				110	-98		
54		304	-232				110	-100		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769
PROJECT NAME Ball Mountain Dam
DATE May 14 1986
CALCULATED BY ON
READ BY SJS/PAD
INSTRUMENT NO.
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
53		285	-214				126	-104		
51		218	-147				190	-167		
49		185	-110				240	-220		
48		162	-89				255	-231		
46		115	-44				237	-213		
44		63	6				195	-161		
43		44	31				192	-157		
41		-35	104				203	-176		
39		-55	128				240	-213		
38		-31	104				246	-223		
36		-19	90				246	-216		
34		12	58				251	-222		
32		18	56				255	-224		
30		127	-58				240	-217		
28		157	-87				276	-261		
26		191	-118				281	-267		
24		272	-200				318	-294		
22		323	-256				361	-334		
20		371	-300				380	-366		
18		358	-283				323	-312		
16		354	-281				220	-203		
14		330	-258				169	-154		
12		327	-252				116	-105		
10		270	-197				144	-110		
8		172	-102				137	-104		
6		54	21				68	-40		
4		-393	470				-48	83		
2		-664	739				-153	171		

Water at 113 ft

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. ~~85769~~ 86934 PROJECT NAME Ball Mountain Dam

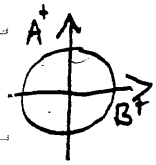
DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MTM CHECKED BY _____ ON _____

INSTRUMENT NO. _____

Stick up = 0

D.S.



Depth to Sand 4.96

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		361	-277				394	-385		
130		382	-300				377	-361		
128		381	-295				352	-328		
126		417	-332				328	-307		
124		445	-362				339	-328		
122		510	-425				340	-317		
120		564	-477				269	-240		
118		550	-462				160	-140		
116		530	-443				115	-97		
114		596	-510				060	-50		
112		608	-526				-042	+61		
110		522	-438				-103	+114		
108		454	-373				-210	+218		
106		370	-284				-204	+205		
105		311	-228				-165	+178		
103		237	-154				-025	+44		
101		191	-103				099	-79		
100		205	-121				142	-116		
98		259	-174				186	-159		
96		316	-236				289	-266		
95		326	-242				291	-276		
93		369	-290				271	-232		
91		475	-392				250	-225		
90		511	-429				242	-228		
88		538	-457				240	-212		
86		552	-470				227	-207		
85		564	-484				217	-201		
83		561	-478				186	-160		
81		577	-496				155	-140		
80		558	-476				123	-112		
78		523	-440				082	-68		
76		537	-454				051	-35		
74		526	-441				028	-22		
72		471	-389				-009	+40		
70		447	-362				-079	+88		
68		421	-340				-082	+112		
66		394	-309				-071	+97		
64		386	-301				-057	+81		
62		391	-308				-026	+53		
60		394	-310				075	-44		
58		429	-349				105	-86		
56		388	-304				129	-91		
54		307	-223				122	-96		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE June 16 1986 CALCULATED BY _____ ON _____

READ BY SJS, MTM CHECKED BY _____ ON _____

INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		289	-206				125	-105		
~~53~~		~~220~~	~~+140~~				~~199~~			
51		220	-140				199	-174		
49		189	-105				251	-221		
48		165	-83				246	-224		
46		120	-35				247	-210		
44		068	+12				195	-166		
43		047	+34				179	-180		
41		-035	+114				196	-182		
39		-051	+131				236	-215		
38		-027	+111				244	-222		
36		-015	+95				235	-212		
34		018	+64				241	-216		
32		020	+62				253	-221		
30		130	+52				236	-217		
~~[illegible]~~		—					—			
28		161	-84				284	-262		
26		196	-115				287	-266		
24		275	-196				319	-293		
22		327	-253				355	-340		
20		375	-293				384	-371		
18		361	-282				339	-315		
16		358	-277				221	-203		
14		336	-256				173	-151		
12		329	-248				123	-99		
10		274	-191				145	-114		
8		179	-101				147	-117		
6		058	+29				074	-45		
4		-394	+474				-050	+96		
2		-666	750				-139	+195		

▽ @ 109'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

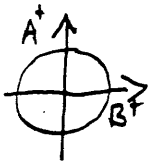
DATE July 16, 1986 CALCULATED BY _____ ON _____

READ BY Steve Kesiby, Steve Sacandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

Stick up = 0

D.S.



Depth to Sand

Stick up above surface casing = 0

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
132		386	-297				403	-384		
130		385	-301				379	-372		
128		388	-296				352	-340		
126		423	-330				337	-324		
124		454	-361				353	-339		
122		515	-419				358	-316		
120		571	-474				269	-248		
118		558	-463				160	-138		
116		535	-442				117	-95		
114		602	-505				83	-54		
112		619	-523				-29	57		
110		532	-437				-87	106		
108		464	-372				-194	211		
106		380	-284				-200	225		
105		322	-227				-164	182		
103		248	-153				-38	62		
101		194	-99				103	-71		
100		209	-115				151	-116		
98		263	-175				188	-159		
96		319	-236				293	-266		
95		332	-243				308	-272		
93		374	-286				269	-242		
91		480	-388				251	-230		
90		516	-425				254	-229		
88		546	-453				243	-219		
86		558	-465				234	-212		
85		572	-479				228	-203		
83		567	-476				191	-165		
81		583	-490				163	-140		
80		565	-473				130	-112		
78		579	-434				93	-76		
76		542	-448				58	-35		
74		532	-440				41	-15		
72		477	-386				-15	40		
70		455	-362				-72	106		
68		429	-338				-85	115		
66		400	-308				-68	102		
64		391	-300				-53	87		
62		396	-303				-32	55		
60		398	-304				69	-48		
58		435	-343				117	-90		
56		395	-303				107	-94		
54		312	-218				126	-99		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE July 16, 1986 CALCULATED BY _____ ON _____
READ BY SSS, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		294	-202				134	-110		
52		~~400~~	~~-216~~				~~-175~~	~~-193~~		
51		227	-137				206	-176		
49		196	-100				246	-222		
48		172	-77				257	-228		
46		125	-30				248	-218		
44		74	20				195	-167		
43		53	42				190	-163		
41		-29	120				207	-183		
39		-46	141				237	-213		
38		-20	116				246	-217		
36		-9	101				241	-215		
34		24	70				248	-224		
32		27	67				250	-225		
30		136	-42				245	-221		
28		168	-79				293	-259		
26		200	-108				291	-261		
24		280	-187				327	-298		
22		334	-244				364	-340		
20		383	-288				390	-368		
18		365	-273				343	-308		
16		362	-268				227	-199		
14		342	-252				167	-152		
12		334	-244				117	-105		
10		279	-186				140	-108		
8		186	-96				150	-116		
6		66	28				75	-54		
4		-386	476				-51	70		
2		-662	752				-135	156		

Water encountered @ 113'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

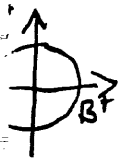
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE AUGUST 19 1986 CALCULATED BY _____ ON _____

READ BY R. BARRY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		364	-275				400	-388		
130		384	-301				372	-358		
128		384	-296				350	-322		
126		419	-328				331	-305		
124		450	-303				377	-333		
122		510	-421				372	-327		
120		568	-477				292	-248		
118		554	-464				177	-136		
116		531	-442				141	-95		
114		599	-507				83	-53		
112		615	-527				-22	+65		
110		528	-440				-84	112		
108		461	-375				-185	221		
106		378	-287				-178	229		
105		319	-228				-135	186		
103		244	-157				+5	72		
101		189	-103				147	-61		
100		204	-120				191	-108		
98		257	-173				225	-153		
96		316	-235				329	-260		
95		329	-244				338	-273		
93		367	-286				294	-238		
91		474	-389				280	-225		
90		512	-427				266	-231		
88		542	-457				250	-216		
86		555	-469				243	-211		
85		567	-482				233	-202		
83		564	-479				199	-160		
81		581	-494				170	-138		
80		563	-477				142	-108		
78		525	-436				101	-69		
76		538	-452				69	-30		
74		530	-442				52	-14		
72		475	-388				4	+39		
70		450	-362				-50	114		
68		427	-339				-58	122		
66		399	-310				-47	112		
64		389	-302				-27	88		
62		394	-307				-10	67		
60		395	-307				+98	-47		
58		430	-347				132	-93		
56		394	-311				140	-92		
54		308	-223				151	-97		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 19, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		290	-205				165	-116		
~~52~~		~~223~~	~~-223~~				~~207~~	~~-138~~		
51		~~223~~	-141				250	-177		
49		191	-107				303	-224		
48		168	-83				314	-224		
46		120	-37				310	-213		
44		69	+15				257	-165		
43		49	36				248	-156		
41		-34	118				271	-174		
39		-52	137				311	-214		
38		-26	112				319	-218		
36		-14	96				312	-215		
34		+19	64				315	-221		
32		21	63				314	-221		
30		132	-48				300	-221		
~~1000~~										
28		164	-85				339	-255		
26		197	-114				341	-258		
24		278	-194				368	-283		
22		330	-251				396	-334		
20		382	-297				419	-372		
18		363	-280				371	-308		
16		362	-275				256	-196		
14		342	-259				207	-153		
12		331	-248				161	-96		
10		278	-193				181	-106		
8		183	-103				192	-110		
6		62	+23				131	-47		
4		-395	475				53	+82		
2		-664	750				-6	1641		

AFTER 1061

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

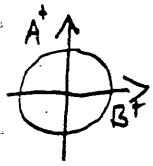
DATE Sept 23, 1986, CALCULATED BY _____ ON _____

READ BY J. Tootthaker / Steve Saranakis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

tick up = 0

D.S.



epth to Sand

tick up rouve surface casing = 0

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
132		+ 360	- 280				+ 397	- 382		
130		+ 382	- 299				+ 375	- 354		
128		+ 380	- 293				+ 352	- 329		
126		+ 416	- 328				+ 340	- 304		
124		+ 448	- 364				+ 353	- 330		
122		+ 510	- 423				+ 362	- 315		
120		+ 565	- 478				+ 275	- 239		
118		+ 553	- 464				+ 167	- 130		
116		+ 529	- 441				+ 130	- 93		
114		+ 594	- 506				+ 85	- 56		
112		+ 615	- 525				- 32	+ 66		
110		+ 527	- 434				- 85	+ 118		
108		+ 460	- 373				- 190	+ 216		
106		+ 377	- 285				- 199	+ 231		
105		+ 317	- 228				- 161	+ 194		
103		+ 240	- 152				- 32	+ 69		
101		+ 192	- 101				+ 98	- 67		
100		+ 205	- 124				+ 144	- 115		
98		+ 259	- 172				+ 179	- 150		
96		+ 318	- 234				+ 291	- 251		
95		+ 330	- 238				+ 298	- 262		
93		+ 371	- 287				+ 266	- 243		
91		+ 478	- 384				+ 247	- 218		
90		+ 515	- 420				+ 244	- 217		
88		+ 545	- 446				+ 243	- 208		
86		+ 559	- 463				+ 234	- 199		
85		+ 572	- 477				+ 230	- 192		
83		+ 566	- 474				+ 186	- 156		
81		+ 582	- 495				+ 152	- 138		
80		+ 566	- 475				+ 124	- 108		
78		+ 532	- 433				+ 89	- 71		
76		+ 542	- 451				+ 54	- 28		
74		+ 533	- 440				+ 36	- 12		
72		+ 476	- 387				- 22	+ 42		
70		+ 457	- 361				- 75	+ 112		
68		+ 429	- 339				- 82	+ 119		
66		+ 406	- 309				- 69	+ 112		
64		+ 400	- 300				- 52	+ 93		
62		+ 407	- 307				- 31	+ 62		
60		+ 402	- 308				+ 72	- 40		
58		+ 430	- 347				+ 109	- 80		
56		+ 396	- 311				+ 124	- 84		
54		+ 308	- 221				+ 128	- 88		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE Sept 23, 1986 CALCULATED BY _____ ON _____

READ BY J. Toothaker / Steve Saunders

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		+ 290	- 204				+ 134	- 95		
52		+ 252	- 197				+ 160	- 146		
51		+ 220	- 136				+ 199	- 170		
49		+ 190	- 111				+ 240	- 214		
48		+ 164	- 83				+ 254	- 225		
46		+ 117	- 31				+ 244	- 208		
44		+ 66	+ 17				+ 195	- 160		
43		+ 47	+ 41				+ 190	- 152		
41		- 39	+ 125				+ 206	- 174		
39		- 53	+ 133				+ 239	- 207		
38		- 28	+ 107				+ 248	- 213		
36		- 16	+ 95				+ 239	- 208		
34		+ 19	+ 62				+ 251	- 219		
32		+ 18	+ 63				+ 252	- 215		
30		+ 133	- 46				+ 247	- 214		
1/2										
28		+ 162	- 90				+ 288	- 253		
26		+ 198	- 110				+ 293	- 255		
24		+ 276	- 191				+ 331	- 289		
22		+ 326	- 249				+ 369	- 332		
20		+ 378	- 294				+ 385	- 359		
18		+ 360	- 283				+ 342	- 303		
16		+ 357	- 281				+ 227	- 195		
14		+ 339	- 264				+ 178	- 144		
12		+ 328	- 243				+ 132	- 94		
10		+ 274	- 194				+ 143	- 108		
8		+ 188	- 112				+ 144	- 100		
6		+ 63	+ 23				+ 73	- 38		
4		+ 395	+ 468				- 46	+ 103		
2		- 664	+ 742				- 109	+ 178		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

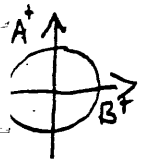
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11/8/86 CALCULATED BY _____ ON _____

READ BY PGC/SJS

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		+361	-276				+393	-380		
130		+382	-300				+380	-361		
128		+379	-293				+348	-332		
126		+417	-331				+335	-314		
124		+448	-361				+357	-332		
122		+509	-424				+354	-322		
120		+566	-476				+270	-245		
118		+551	-462				+158	-141		
116		+529	-443				+118	-98		
114		+596	-507				+79	-51		
112		+611	-525				-28	+56		
110		+523	-436				-84	+111		
108		+458	-372				-190	+220		
106		+373	-283				-197	+221		
105		+314	-225				-159	+178		
103		+240	-154				-31	+58		
101		+188	-101				+104	-74		
100		+204	-119				+148	-117		
98		+258	-172				+184	-154		
96		+318	-235				+294	-262		
95		+328	-240				+300	-268		
93		+368	-286				+258	-241		
91		+473	-389				+254	-217		
90		+511	-427				+255	-218		
88		+541	-454				+248	-210		
86		+552	-467				+243	-201		
85		+565	-480				+226	-191		
83		+562	-476				+191	-158		
81		+577	-492				+158	-148		
80		+560	-475				+131	-113		
78		+523	-438				+93	-72		
76		+537	-452				+59	-38		
74		+528	-439				+40	-16		
72		+472	-386				-16	+39		
70		+450	-360				-73	+108		
68		+424	-338				-83	+118		
66		+396	-308				-67	+107		
64		+389	-300				-50	+89		
62		+393	-306				-34	+52		
60		+393	-307				+79	-50		
58		+430	-347				+116	-88		
56		+396	-310				+122	-89		
54		+306	-220				+132	-98		

ick up 0

pth to sand

ick up rouve ulface casing = 0

B_{10} - 6.0
B_{16} = 6.0

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 11/8/86 CALCULATED BY ON
READ BY PGC/SSS
INSTRUMENT NO. F-79-2 CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
53		+288	-204				+142	-116		
52		—	—				—	—		
51		+222	-137				+205	-179		
49		+191	-103				+243	-222		
48		+168	-80				+256	-227		
46		+120	-31				+244	-215		
44		+70	+16				+196	-163		
43		+49	+38				+177	-158		
41		-36	+119				+194	-182		
39		-50	+135				+238	-213		
38		-24	+110				+247	-222		
36		-12	+97				+241	-215		
34		+23	+63				+250	-225		
32		+23	+63				+251	-223		
30		+134	-49				+247	-219		
28		+164	-83				+289	-257		
26		+198	-112				+294	-259		
24		+279	-192				+331	-295		
22		+331	-248				+366	-388		
20		+382	-292				+394	-367		
18		+363	-280				+340	-312		
16		+360	-275				+224	-201		
14		+341	-258				+176	-152		
12		+331	-249				+122	-106		
10		+277	-191				+135	-117		
8		+183	-100				+137	-106		
6		+62	+26				+64	-41		
4		-386	+473				-89	+87		
2		-657	+751				-160	+141		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

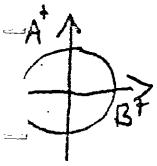
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 5/8/87 CALCULATED BY _____ ON _____

READ BY PGC / CEC

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
132		+365	-273				+397	-394		
130		+382	-294				+387	-377		
128		+382	-290				+362	-346		
126		+416	-326				+334	-319		
124		+447	-361				+336	-341		
122		+504	-411				+356	-329		
120		+567	-474				+281	-258		
118		+556	-464				+153	-143		
116		+527	-438				+122	-102		
114		+575	-508				+90	-66		
112		+616	-528				-43	+44		
110		+527	-438				-85	+95		
108		+465	-379				-200	+206		
106		+380	-292				-205	+214		
105		+320	-232				-166	+183		
103		+245	-158				-41	+63		
101		+190	-100				+92	-72		
100		+206	-117				+142	-121		
98		+259	-170				+176	-163		
96		+320	-232				+288	-266		
95		+332	-242				+305	-283		
93		+363	-277				+256	-237		
91		+472	-382				+243	-234		
90		+511	-424				+238	-230		
88		+542	-452				+235	-226		
86		+554	-464				+231	-229		
85		+566	-477				+222	-210		
83		+564	-476				+180	-170		
81		+581	-491				+156	-144		
80		+563	-476				+120	-109		
78		+527	-435				+87	-73		
76		+541	-451				+53	-38		
74		+532	-441				+35	-18		
72		+474	-386				-22	+33		
70		+448	-359				-87	+96		
68		+424	-336				-92	+108		
66		+398	-308				-82	+97		
64		+388	-298				-65	+78		
62		+394	-305				-45	+48		
60		+403	-313				+65	-58		
58		+477	-389				+106	-97		
56		+461	-372				+97	-98		
54		+332	-242				+126	-116		

Stick up 0

Depth to Sand

104
102
Stick up above surface casing = 0
94
92
84
82

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE _____ CALCULATED BY _____ ON _____

READ BY _____

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
53		+293	-204				+133	-123		
52		+215	-218				+173	-149		
51		+220	-133				+203	-187		
49		+192	-102				+240	-236		
48		+167	-77				+243	-240		
46		+119	-30				+240	-225		
44		+72	+16				+186	-174		
43		+51	+38				+189	-176		
42 41		-35	+122				+187	-185		
40 39		-48	+138				+233	-218		
38		-22	+112				+244	-229		
36		-13	+102				+235	-220		
34		+26	+64				+249	-232		
32		+22	+68				+244	-227		
30		+131	-41				+237	-224		
							~~+267~~	~~-266~~		
28		+162	-74				+267	-266		
26		+197	-106				+279	-270		
24		+279	-186				+314	-300		
22		+333	-243				+354	-343		
20		+382	-289				+376	-373		
18		+369	-278				+330	-320		
16		+363	-272				+214	-206		
14		+345	-253				+166	-159		
12		+334	-244				+108	-104		
10		+279	-188				+117	-108		
8		+186	-97				+129	-112		
6		+66	+26				+58	-52		
4		-383	+473				-65	+80		
2		-661	+751				-136	+149		

WET @ 25', CASCE

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

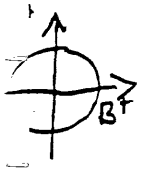
PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 6/22/87 CALCULATED BY _____ ON _____

READ BY CRC/PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

D.S.



Tick up

Depth to bend

Tick up or surface casing = 0

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
132		+355	-292				+417	-362		
130		+376	-310				+406	-342		
128		+372	-306				+368	-311		
126		+404	-337				+360	-291		
124		+439	-378				+371	-312		
122		+483	-420				+367	-297		
120		+553	-490				+306	-246		
118		+543	-483				+167	-115		
116		+513	-453				+142	-77		
114		+584	-522				+117	-41		
112		+606	-539				-10	+77		
110		+517	-458				-53	+123		
108		+461	-397				-166	+234		
106		+377	-312				-179	+246		
105		+316	-253				-146	+217		
103		+235	-175				-19	+101		
101		+175	-118				+108	-40		
100		+192	-132				+155	-87		
98		+244	-183				+198	-142		
96		+303	-248				+307	-229		
95		+320	-259				+325	-253		
93		+347	-286				+283	-215		
91		+456	-396				+273	-203		
90		+498	-433				+271	-206		
88		+525	-466				+268	-195		
86		+541	-476				+256	-179		
85		+551	-489				+259	-185		
83		+554	-494				+211	-135		
81		+568	-500				+188	-113		
80		+555	-493				+153	-87		
78		+516	-450				+119	-50		
76		+526	-465				+81	-9		
74		+520	-457				+65	+12		
72		+464	-401				+9	+62		
70		+438	-372				-49	+128		
68		+415	-352				-64	+133		
66		+388	-323				-51	+119		
64		+377	-314				-33	+103		
62		+385	-314				-20	+95		
60		+389	-327				+102	-20		
58		+465	-403				+139	-61		
56		+452	-391				+142	-72		
54		+322	-261				+155	-85		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 6/22/86 CALCULATED BY _____ ON _____
READ BY CRC / PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		+283	-218				+152	-96		
52		—	—				—	—		
51		+207	-149				+233	-148		
49		+180	-116				+271	-188		
48		+156	-93				+278	-194		
46		+107	-45				+260	-185		
44		+61	+2				+219	-137		
43		+41	+23				+212	-129		
41		-44	+107				+221	-148		
39		-63	+127				+258	-183		
38		-33	+100				+271	-198		
36		-26	+88				+271	-186		
34		+13	+51				+282	-197		
32		+8	+54				+278	-196		
30		+115	-54				+264	-186		
1		—	—				—	—		
28		+150	-88				+305	-226		
26		+185	-119				+314	-229		
24		+265	-200				+344	-264		
22		+318	-257				+387	-301		
20		+371	-343				+413	-305		
18		+355	-293				+370	-284		
16		+351	-286				+247	-171		
14		+331	-270				+203	-126		
12		+320	-259				+148	-74		
10		+270	-200				+146	-76		
8		+177	-115				+171	-87		
6		+55	+10				+101	-17		
4		-395	+455				-37	+132		
2		-672	+735				-111	+222		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-80-1 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

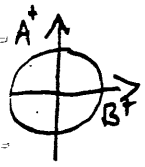
DATE Oct. 6, 1987 CALCULATED BY _____ ON _____

READ BY BS / PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

Stickup = 0

D.S.



Depth to sand

Stickup above surface casing = 0

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
132		+319	-313				+378	-395		
130		+336	-333				+360	-392		
128		+332	-328				+330	-358		
126		+366	-363				+310	-342		
124		+403	-401				+335	-347		
122		+455	-449				+330	-340		
120		+515	-514				+260	-290		
118		+508	-506				+147	-168		
116		+480	-477				+108	-134		
114		+547	-543				+73	-86		
112		+569	-568				-52	+32		
110		+482	-479				-93	+73		
108		+422	-422				-204	+178		
106		+339	-336				-218	+190		
105		+280	-278				-188	+175		
103		+200	-197				-73	+47		
101		+144	-140				+58	-84		
100		+160	-157				+111	-134		
98		+213	-209				+158	-174		
96		+271	-270				+254	-281		
95		+284	-281				+276	-297		
93		+315	-313				+243	-263		
91		+424	-420				+235	-247		
90		+464	-461				+234	-244		
88		+492	-491				+226	-240		
86		+506	-502				+220	-232		
85		+516	-514				+213	-225		
83		+519	-514				+170	-183		
81		+531	-528				+140	-154		
80		+517	-515				+116	-137		
78		+481	-476				+75	-97		
76		+492	-490				+32	-64		
74		+484	-482				+21	-38		
72		+429	-425				-34	+10		
70		+405	-402				-94	+69		
68		+382	-379				-113	+77		
66		+354	-350				-98	+69		
64		+344	-340				-78	+51		
62		+349	-342				-65	+47		
60		+358	-355				+49	-64		
58		+432	-431				+92	-109		
56		+420	-417				+89	-114		
54		+290	-284				+107	-126		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE Oct. 6, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC CHECKED BY _____ ON _____
INSTRUMENT NO. F-79-1

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
53		+247	-243				+112	-124		
52		+172	-257				+153	-170		
51		+177	-173				+172	-194		
49		+145	-142				+214	-236		
48		+121	-117				+223	-250		
46		+72	-69				+209	-239		
44		+28	-24				+167	-189		
43		+7	-3				+157	-183		
41		-79	+82				+172	-195		
39		-95	+96				+210	-230		
38		-67	+69				+219	-236		
36		-60	+59				+215	230		
34		-18	+21				+227	-245		
32		-23	+25				+223	-242		
30		+82	-79				+220	-237		
Water										
28		+116	-117				+255	-278		
26		+151	-147				+260	-279		
24		+230	-226				+296	-318		
22		+281	-281				+336	-364		
20		+338	-330				+366	-376		
18		+322	-319				+317	-335		
16		+318	-313				+199	-226		
14		+304	-300				+152	-170		
12		+290	-286				+106	-130		
10		+239	-230				+113	-124		
8		+144	-142				+120	-132		
6		+24	-17				+43	-64		
4		-427	+422				-82	+94		
2		-694	+692				-160	+195		

Calculate

Water on the cable at 29'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 1 OF 2

PROJECT NO. 8695A PROJECT NAME Ball Mountain Dam

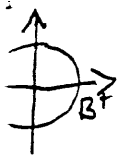
DATE 11-18-1987 CALCULATED BY _____ ON _____

READ BY W. STUREK

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

ck up
0

D.S.



th
to
nd

ck up
ve
face
casing
0

ckup
0.00'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
132		+320	-312				+377	-395		
130		+338	-334				+358	-383		
128		+333	-324				+329	-357		
126		+371	-366				+310	-342		
124		+402	-400				+332	-349		
122		+459	-460				+336	-338		
120		+579	-512				+250	-283		
118		+509	-504				+140	-160		
116		+482	-478				+110	-134		
114		+549	-543				+63	-85		
112		+568	-566				-52	+40		
110		+478	-475				-107	+75		
108		+420	-418				-209	+181		
106		+334	-329				-217	+191		
105		+276	-272				-186	+159		
103		+198	-191				-65	+35		
101		+147	-140				+68	-88		
100		+163	-160				+120	-150		
98		+217	-211				+162	-179		
96		+274	-270				+265	-282		
95		+287	-280				+276	-297		
93		+320	-318				+244	-265		
91		+429	-422				+235	-246		
90		+468	-462				+233	-245		
88		+496	-490				+226	-242		
86		+507	-501				+218	-233		
85		+519	-515				+209	-227		
83		+519	-514				+169	-185		
81		+530	-526				+136	-157		
80		+518	-514				+113	-135		
78		+480	-474				+74	-91		
76		+496	-490				+41	-63		
74		+485	-479				+17	-36		
72		+430	-424				-34	+14		
70		+405	-400				-96	+73		
68		+381	-378				-112	+79		
66		+354	-349				-99	+70		
64		+345	-341				-82	+52		
62		+350	-345				-67	+46		
60		+360	-355				+49	-64		
58		+437	-433				+95	-106		
56		+423	-416				+92	-121		
54		+289	-282				+108	-135		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-1 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 11-18-87 CALCULATED BY _____ ON _____
READ BY W. Stolek, S. Sarandis
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

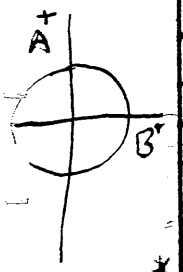
DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
53		+249	-242				+114	-149		
52		+171	-255				+149	-175		
51		+177	-171				+168	-197		
49		+148	-142				+213	-237		
48		+123	-117				+224	-250		
46		+73	-68				+211	-241		
44		+29	-23				+166	-188		
43		+8	-3				+159	-181		
41		-79	+82				+170	-195		
39		-90	+96				+210	-230		
38		-64	+69				+219	-237		
36		-58	+61				+215	-235		
34		-18	+21				+223	-245		
32		-20	+27				+222	-246		
30		+83	-79				+219	-235		
INVV.										
28		+117	-116				+258	-272		
26		+151	-146				+262	-280		
24		+230	-225				+298	-316		
22		+284	-281				+339	-357		
20		+338	-330				+363	-378		
18		+325	-320				+318	-342		
16		+320	-312				+204	-232		
14		+305	-298				+158	-180		
12		+290	-285				+107	-132		
10		+240	-229				+109	-126		
8		+145	-143				+120	-131		
6		+27	-18				+46	-99		
4		-420	+429				-89	+51		
2		-696	+703				-151	+111		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 1

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE January 23, 1985 CALCULATED BY _____ ON _____
READ BY S. Sandwick/D. Bailey CHECKED BY _____ ON _____
INSTRUMENT NO. _____

D.S.



DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		+256	-146				-532	+537		
90		+289	-180				-614	+627		
88		+361	-253				-737	+740		
86		+300	-196				-808	+825		
~~84~~		~~+275~~	~~-190~~				~~-800~~			
* 83		+232	-170				-815	+829		
* 82		+230	-170				-762	+779		
* 81		+310	-196				-711	+721		
80		+299	-187				-688	+703		
78		+245	-133				-617	+638		
76		+218	-106				-547	+570		
* 75		+205	-95				-492	+510		
* 73		+255	-143				-398	+412		
* 71		+226	-176				-297	+305		
70		+285	-174				-262	+278		
68		+272	-160				-228	+266		
66		+259	-149				-240	+261		
64		+200	-97				-293	+304		
62		+177	-69				-408	+444		
60		+175	-60				-497	+520		
58		+161	-49				-563	+605		
56		+105	+4				-595	+630		
54		+67	+46				-613	+644		
52		+57	+53				-624	+651		
50		+65	+46				-633	+660		
48		+104	+10				-640	+670		
46		+120	-8				-578	+608		
44		+142	-30				-540	+579		
42		+133	-25				-488	+511		
40		+117	-5				-413	+432		
38		+110	+3				-350	+385		
36		+77	+40				-250	+276		
34		+50	+62				-144	+177		
32		+150	-39				-119	+152		
30		+330	-218				-112	+151		
28		+393	-282				-95	+111		
26		+409	-296				-111	+118		
24		+406	-293				-13	+40		
* 23		+404	-291				+26	-3		
* ~~26~~ 21		+349	-239				+82	-53		
* ~~18~~ 19		+273	-159				+129	-98		
~~16~~ 18		+245	-1~~16~~	-132			+146	-~~145~~	-125	
~~14~~ 16		+225	-110				+203	-176		

a/ STICK-UP" [illegible] SECTION ABOVE SUPPLANTS

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME BALL MOUNTAIN DAM
DATE JANUARY 23 1986 CALCULATED BY _____ ON _____
READ BY S. SARANDIS/R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

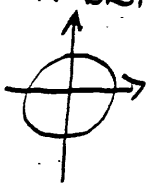
	DEPTH	ORIG. DIFF.	AZ= A+	AZ= A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= B+	AZ= B−	NEW DIFF.	CHANGE
	14		+175	-65				+212	-190		
*	13		+125	-13				+203	-167		
*	11		-16	+127				+63	-20		
*	9		-143	+253				-68	+104		
	8		-193	+306				-24	+49		
	6		-208	+320				+161	-125		
	4		-100	+211				+292	-248		
	2		+29	+178				+296	-265		

PTT OF SOND
2.63 -
2.44 -
2.51

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE April 1, 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to SAND 2.56

Tick up above PVC casing = .91'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		+242	-202				-523	+524		
90		+271	-231				-611	+615		
88		+343	-298				-734	+726		
86		+287	-243				-810	+821		
85		+260	-214				-819	+826		
83		+262	-204				-769	+784		
81		+290	-227				-719	+730		
80		+282	-220				-697	+695		
78		+228	-170				-630	+643		
76		+200	-139				-550	+552		
75		+187	-126				-501	+503		
73		+232	-171				-408	+428		
71		+266	-198				-292	+320		
70		+261	-196				-274	+287		
68		+255	-185				-232	+260		
66		+236	-173				-230	+250		
64		+185	-122				-282	+301		
62		+158	-91				-413	+426		
60		+156	-93				-487	+492		
58		+140	-73				-572	+575		
56		+90	-24				-594	+662		
54		+45	+20				-610	+617		
52		+35	+29				-632	+640		
50		+39	+27				-635	+654		
48		+82	-11				-642	+650		
46		+98	-29				-572	+590		
44		+119	-47				-546	+568		
42		+113	-48				-491	+497		
40		+96	-27				-420	+438		
38		+89	-18				-357	+356		
36		+54	+16				-244	+266		
34		+27	+39				-149	+166		
32		+127	-59				-106	+131		
30		+308	-240				-106	+135		
28		+373	-305				-87	+113		
26		+386	-319				-105	+126		
24		+384	-316				-3	+27		
23		+384	-315				+25	-10		
21		+329	-263				+80	-64		
19		+253	-182				+122	-96		
18		+224	-156				+148	-124		
16		+203	-133				+207	-191		
14		+158	-89				+219	-203		

GEI FIELD SHEET
INCLINOMETER DATA

BORING 6I-85-2 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		+106	-36				+206	-191		
11		-37	+105				+39	-33		
9		-164	+234				-69	+94		
8		-214	+282				-30	+39		
6		-231	+299				+154	-141		
4		-133	+202				+310	-286		
2		-112	+192				+433	-398		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

Page 2 is on page 2 of SI-

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE May 14, 1986 CALCULATED BY _____ ON _____

READ BY SJS/PAD

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
91		251	-174				-530	532		
90		277	-205				-618	618		
88		345	-269				-719	733		
86		292	-217				-824	828		
85		267	-190				-825	839		
83		266	-185				-758	789		
81		297	-213				-709	738		
80		287	-209				-682	717		
78		235	-155				-618	659		
76		206	-126				-537	569		
75		191	-112				-485	529		
73		234	-159				-402	439		
71		273	-191				-292	321		
70		267	-191				-252	283		
68		261	-180				-229	267		
66		245	-168				-220	250		
64		195	-119				-268	312		
62		161	-84				-420	436		
60		163	-87				-471	501		
58		143	-66				-564	589		
56		96	-19				-586	613		
54		51	29				-602	639		
52		38	37				-615	649		
50		40	34				-638	664		
48		85	-7				-641	675		
46		103	-27				-580	607		
44		123	-45				-552	582		
42		114	-40				-484	511		
40		102	-24				-403	442		
38		93	-14				-344	385		
36		57	20				-242	281		
34		31	45				-140	177		
32		131	-53				-111	134		
30		311	-234				-99	136		
28		376	-300				-83	107		
26		390	-313				-94	123		
24		389	-310				-1	13		
23		387	-307				+34	-12		
21		332	-255				91	-59		
19		255	-175				132	-82		
18		225	-148				155	-127		
16		205	-126				212	-174		
14		162	-83				228	-180		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

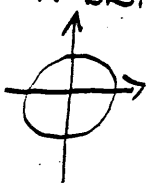
PROJECT NO. ~~85769~~ 86934 PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MTM CHECKED BY _____ ON _____

INSTRUMENT NO. _____

A+ D.S.



Depth to SAND

Tick up above PVC casing = .91'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		—	—				—	—		
90		284	-205				-599	625		
88		350	-265				-712	734		
86		296	-212				-799	828		
85		271	-188				-810	829		
83		268	-179				-758	794		
81		302	-205				-712	745		
80		290	-204				-682	711		
78		240	-149				-614	660		
76		210	-120				-535	562		
75		197	-106				-487	529		
73		236	-154				-397	437		
71		272	-184				-238	320		
70		267	-183				-254	296		
68		262	-176				-231	250		
66		245	-162				-233	260		
64		197	-111				-268	316		
62		163	-80				-412	434		
60		163	-81				-471	506		
58		144	-64				-557	582		
56		100	-15				-593	625		
54		052	31				-609	633		
52		040	42				-615	655		
50		040	40				-629	673		
48		088	-2				-638	678		
46		103	-20				-565	608		
44		123	-38				-541	582		
42		119	-34				-480	512		
40		102	-18				-407	449		
38		095	-9				-343	375		
36		059	26				-241	271		
34		032	50				-148	163		
32		135	-49				-099	138		
30		312	-230				-111	134		
28		377	-294				-083	121		
26		391	-309				-100	135		
24		392	-309				007	30		
23		391	-306				033	2		
21		336	-252				088	-48		
19		259	-173				125	-83		
18		228	-143				151	-115		
16		207	-123				211	-189		
14		168	-85				216	-181		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MTM CHECKED BY _____ ON _____

INSTRUMENT NO. _____

10:42.84

DEPTH	ORIG. DIFF.	AZ= Down stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
13		119	-33				223	-196		
11		-037	119				049	-15		
9		-155	240				-060	103		
8		-202	287				-018	40		
6		-230	313				170	-139		
4		-129	209				309	-277		
2		~~-350~~	143				~~400~~	-393		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

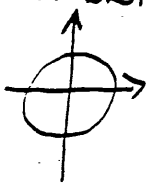
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE July 16, 1986 CALCULATED BY _____ ON _____

READ BY Steve Reich, Steve Seranadis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND

Tick up above surface casing = .34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91										
90		286	-220				-610	621		
88		347	-274				-717	735		
86		291	-225				-810	823		
85		268	-199				-826	834		
83		267	-192				-771	786		
81		294	-222				-712	748		
80		285	-215				-685	710		
78		234	-162				-619	658		
76		205	-134				-549	578		
75		191	-124				-500	511		
73		231	-165				-409	429		
71		269	-197				-286	314		
70		265	-198				-257	280		
68		260	-187				-230	253		
66		244	-174				-227	252		
64		196	-126				-266	300		
62		159	-87				-407	425		
60		160	-91				-479	512		
58		139	-71				-566	594		
56		95	-25				-593	625		
54		48	22				-615	637		
52		38	32				-624	655		
50		37	31				-632	662		
48		85	-14				-640	670		
46		100	-31				-570	590		
44		118	-48				-544	573		
42		112	-45				-488	513		
40		99	-27				-410	445		
38		91	-17				-356	382		
36		56	16				-249	271		
34		28	42				-145	159		
32		128	-57				-115	131		
30		311	-238				-104	145		
28		377	-304				-88	132		
26		391	-318				-97	116		
24		394	-320				7	21		
23		391	-316				33	-19		
21		334	-266				85	-55		
19		255	-181				122	-90		
18		222	-153				148	-137		
16		203	-131				215	-190		
14		165	-94				214	-186		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE July 16, 1986 CALCULATED BY _____ ON _____

READ BY SSS, SR

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		115	-44				219	-207		
11		-40	110				49	-29		
9		-158	229				-68	101		
8		-206	275				-20	-37		
6		-237	307				161	-136		
4		-137	205				306	-278		
2		-52	122				355	-319		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 19, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.

-pth
o
SAND
1.17'

-k up
ive.
face
casing
34'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
91		—	—			—	—	—		
90		293	-207				-603	623		
88		354	-268				-708	728		
86		301	-211				-800	831		
85		275	-186				-808	836		
83		273	-180				-759	791		
81		303	-209				-715	744		
80		295	-204				-681	721		
78		244	-152				-625	655		
76		213	-122				-544	580		
75		198	-109				-495	516		
73		244	-155				-405	430		
71		278	-185				-285	318		
70		274	-186				-258	283		
68		270	-176				-226	264		
66		253	-163				-220	260		
64		204	-115				-270	312		
62		167	-77				-402	430		
60		169	-81				-475	512		
58		149	-61				-560	588		
56		107	-17				-598	626		
54		58	+32				-603	644		
52		47	42				-626	660		
50		44	43				-628	667		
48		96	-5				-640	672		
46		112	-22				-570	606		
44		126	-36				-545	583		
42		121	-36				-484	510		
40		109	-21				-412	441		
38		97	-9				-346	382		
36		63	+24				-241	267		
34		37	50				-139	172		
32		139	-49				-110	143		
30		319	-230				-101	140		
28		334	-295				-84	117		
26		400	-310				-96	137		
24		403	-313				+10	23		
23		399	-307				42	-16		
21		344	-258				84	-49		
19		263	-169				121	-80		
18		231	-140				152	-137		
16		212	-120				221	-185		
14		176	-85				217	-178		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 19 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		125	-35				212	-186		
11		-33	+120				57	-23		
9		-149	239				-68	+103		
8		-197	286				-30	54		
6		-228	316				+164	-132		
4		-130	217				311	-275		
2		-47	138				398	-370		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

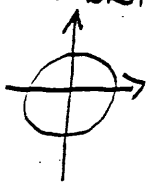
PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE Sept 22, 1986 CALCULATED BY _____ ON _____

READ BY J. Bothaker / Steve Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND

Tick up above surface casing = .34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
~~91~~										
90		+ 293	- 208				- 614	+ 632		
88		+ 355	- 265				- 718	+ 737		
86		+ 299	- 211				- 802	+ 835		
85		+ 275	- 185				- 808	+ 836		
83		+ 272	- 179				- 752	+ 789		
81		+ 302	- 210				- 716	+ 735		
80		+ 292	- 200				- 683	+ 716		
78		+ 242	- 152				- 620	+ 647		
76		+ 212	- 120				- 542	+ 572		
75		+ 197	- 108				- 495	+ 506		
73		+ 242	- 157				- 403	+ 419		
71		+ 277	- 183				- 285	+ 305		
70		+ 273	- 183				- 260	+ 288		
68		+ 268	- 174				- 223	+ 266		
66		+ 252	- 162				- 226	+ 263		
64		+ 203	- 113				- 276	+ 306		
62		+ 166	- 79				- 406	+ 432		
60		+ 167	- 77				- 488	+ 514		
58		+ 146	- 57				- 572	+ 589		
56		+ 106	- 14				- 600	+ 627		
54		+ 56	+ 34				- 614	+ 639		
52		+ 44	+ 43				- 627	+ 659		
50		+ 41	+ 42				- 630	+ 660		
48		+ 97	- 5				- 646	+ 672		
46		+ 111	- 22				- 565	+ 602		
44		+ 121	- 32				- 542	+ 581		
42		+ 121	- 33				- 481	+ 509		
40		+ 109	- 21				- 408	+ 446		
38		+ 95	- 4				- 347	+ 382		
36		+ 64	+ 28				- 246	+ 280		
34		+ 37	+ 52				- 137	+ 166		
32		+ 140	- 53				- 106	+ 143		
30		+ 320	- 231				- 97	+ 138		
28		+ 382	- 293				- 84	+ 124		
26		+ 397	- 309				- 101	+ 136		
24		+ 401	- 311				+ 12	+ 17		
23		+ 397	- 306				+ 42	- 5		
21		+ 343	- 253				+ 74	- 49		
19		+ 262	- 168				+ 120	- 78		
18		+ 230	- 139				+ 151	- 121		
16		+ 210	- 120				+ 211	- 178		
14		+ 174	- 84				+ 224	- 176		

GEI FIELD SHEET
INCLINOMETER DATA

BORING 6I-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE Sept. 22, 1986 CALCULATED BY _____ ON _____

READ BY J. Toothaker / S. Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A−				B+	B−		
13		+124	− 33				+ 211	− 190		
11		− 34	+ 122				+ 47	− 13		
9		− 149	+ 242				− 61	+ 96		
8		− 196	+ 289				− 18	+ 45		
6		− 226	+ 317				+ 175	− 138		
4		− 132	+ 222				+ 315	− 284		
2		− 30	+ 148				+ 399	− 361		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

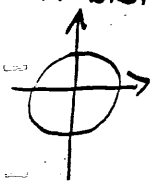
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-8/86 CALCULATED BY _____ ON _____

READ BY PGC / SJS

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

A+ D.S.



pth to SAND

ck of bottom rface casing .34' ✓

BTo = 6.0 ✓

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		—	—				—	—		
90		+289	-210				-598	+628		
88		+350	-270				-712	+732		
86		+296	-215				-805	+830		
85		+273	-192				-808	+825		
83		+268	-183				-756	+777		
81		+295	-210				-710	+747		
80		+286	-202				-680	+716		
78		+237	-154				-618	+645		
76		+207	-123				-542	+562		
75		+192	-110				-492	+524		
73		+239	-158				-407	+437		
71		+275	-186				-285	+316		
70		+270	-188				-252	+272		
68		+266	-177				-231	+267		
66		+249	-166				-216	+254		
64		+201	-116				-281	+298		
62		+162	-81				-404	+428		
60		+165	-81				-472	+513		
58		+141	-62				-566	+586		
56		+105	-21				-592	+622		
54		+52	+30				-605	+639		
52		+42	+38				-631	+660		
50		+39	+42				-622	+660		
48		+95	-9				-644	+680		
46		+110	-27				-566	+601		
44		+118	-34				-548	+584		
42		+118	-38				-481	+512		
40		+108	-25				-414	+449		
38		+93	-7				-345	+360		
36		+62	+24				-247	+259		
34		+34	+48				-149	+163		
32		+136	-53				-110	+141		
30		+315	-234				-107	+127		
28		+377	-298				-103	+127		
26		+394	-314				-103	+115		
24		+396	-316				-3	+17		
23		+392	-308				+34	-25		
21		+339	-257				+74	-62		
19		+259	-175				+115	-80		
18		+227	-146				+145	-123		
16		+207	-125				+210	-183		
14		+172	-89				+221	-187		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11/8/86 CALCULATED BY _____ ON _____

READ BY PGC/SJS

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
13		+122	-40				+223	-187		
11		-36	+117				+57	-20		
9		-150	+234				-72	+89		
8		-199	+281				-21	+41		
6		-228	+311				+172	-136		
4		-134	+216				+318	-288		
2		-31	+121				+395	-365		

GEI FIELD SHEET
INCLINOMETER DATA

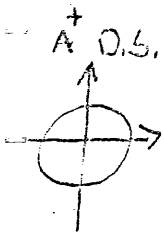
BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 5/7/87 CALCULATED BY _____ ON _____

READ BY PGC/CRC

INSTRUMENT NO. S/N 25222 CHECKED BY _____ ON _____



Depth to SAND

Pick up drive surface casing 34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		+237	-205				-521	+544		
90		+300	-222				-600	+631		
88		+354	-275				-705	+728		
86		+304	-255				-797	+833		
85		+281	-198				-808	+838		
83		+274	-198				-759	+801		
81		+303	-212				-718	+753		
80		+296	-213				-692	+714		
78		+247	-160				-621	+649		
76		+216	-131				-543	+576		
75		+199	-116				-494	+515		
73		+242	-157				-405	+441		
71		+277	-212				-285	+319		
70		+272	-216				-255	+288		
68		+274	-220				-229	-257		
66		+255	-210				-215	+246		
64		+208	-173				-270	+301		
62		+166	-140				-405	+424		
60		+169	-109				-476	+508		
58		+145	-82				-562	+593		
56		+119	-51				-589	+623		
54		+52	+17				-608	+632		
52		+46	+22				-627	+659		
50		+40	+26				-629	+657		
48		+96	-27				-647	+673		
46		+115	-51				-568	+593		
44		+117	-52				-547	+579		
42		+122	-63				-483	+514		
40		+107	-48				-419	+436		
38		+91	-29				-350	+374		
36		+62	0				-246	+268		
34		+37	+25				-147	+171		
32		+135	-72				-107	+142		
30		+316	-257				-110	+137		
28		+380	-320				-98	+118		
26		+396	-335				-105	+137		
24		+398	-333				+5	+25		
23		+393	-305				+34	-19		
21		+340	-257				+82	-56		
19		+260	-172				+105	-78		
18		+228	-142				+137	-129		
16		+208	-123				+213	-185		
14		+174	-87				+217	-187		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 5/7/87 CALCULATED BY _____ ON _____

READ BY CRC / PGC

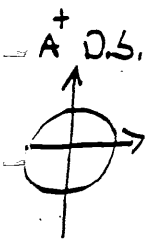
INSTRUMENT NO. SIN 25222 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
13		+123	-37				+206	-196		
11		-35	+119				+42	-19		
9		-154	+239				-72	+101		
8		-198	+283				-30	+40		
6		-224	+308				+163	-141		
4		-130	+214				+307	-281		
2		-4	+93				+396	-360		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 22 JUNE 87 CALCULATED BY _____ ON _____
READ BY CRC / PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____



epth to SAND

ck up
ove.
rface
casing
34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		—	—				—	—		
90		+294	-225				-577	+655		
88		+346	-278				-674	+751		
86		+296	-229				-781	+852		
85		+273	-202				-788	+855		
83		+264	-193				-738	+820		
81		+294	-219				-691	+778		
80		+297	-216				-668	+746		
78		+240	-167				-597	+681		
76		+208	-134				-520	+606		
75		+192	-122				-469	+547		
73		+234	-164				-379	+466		
71		+271	-197				-263	+344		
70		+264	-199				-236	+306		
68		+266	-194				-208	+290		
66		+248	-176				-202	+275		
64		+201	-131				-247	+328		
62		+159	-92				-372	+442		
60		+167	-96				-463	+536		
58		+139	-70				-538	+622		
56		+115	-42				-563	+654		
54		+47	+22				-578	+665		
52		+42	+29				-604	+685		
50		+36	+35				-600	+678		
48		+93	-19				-626	+696		
46	+109	~~+101~~	-37			-545	~~-582~~	+626		
44	+111	~~+110~~	-41			-521	~~-540~~	+607		
42	+116	~~+165~~	-48			-461	~~-504~~	+536		
40	+105	~~+56~~	-31			-394	~~-401~~	+469		
38	+88	~~+111~~	-13			-329	~~-381~~	+405		
36	+61	~~+97~~	+15			-229	~~-273~~	+300		
34	+32	~~+39~~	+40			-123	~~-169~~	+206		
32	+129	~~+78~~	-55			-90	~~-98~~	+170		
30		+309	-238				-85	+163		
28		+374	-303				-74	+155		
26		+393	-321				-82	+160		
24		+392	-322				+27	+55		
23		+389	-314				+51	+14		
21		+339	-268				+106	-19		
19		+259	-182				+134	-53		
18		+223	-152				+169	-89		
16		+205	-136				+241	-160		
14		+171	-102				+237	-158		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 22 JUNE 1987 CALCULATED BY _____ ON _____

READ BY CRC, PGS

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

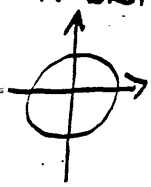
DEPTH	ORIG. DIFF.	AZ= Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		+121	-50				+228	-172		
11		-40	+112				+78	+3		
9		-155	+226				-48	+125		
8		-200	+271				-7	+82		
6		-231	+302				+185	-112		
4		-132	+202				+333	-257		
2		-11	+86				+405	-339		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-35 PAGE 1 OF 3

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE Oct. 9, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

A+ D.S.



Depth to SAND

Pick up above surface casing .34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
91		+253	-249				-532	+536		
90		+264	-361				-620	+600		
88		+319	-315				-719	+694		
86		+268	-265				-805	+795		
85		+244	-241				-812	+803		
83		+236	-228				-776	+763		
81		+268	-258				-736	+720		
80		+259	-251				-706	+689		
78		+211	-203				-636	+624		
76		+177	-173				-555	+547		
75		+159	-155				-506	+502		
73		+203	-199				-411	+406		
71		+237	-231				-303	+280		
70		+233	-231				-272	+258		
68		+235	-227				-249	+236		
66		+216	-213				-240	+215		
64		+170	-166				-300	+275		
62		+128	-125				-411	+411		
60		+132	-133				-501	+474		
58		+109	-106				-581	+557		
56		+90	-84				-607	+588		
54		+18	-16				-629	+609		
52		+10	-10				-648	+633		
50		+1	0				-636	+632		
48		+63	-58				-657	+650		
46		+83	-78				-582	+574		
44		+76	-73				-560	+557		
42		+83	-81				-478	+484		
40		+75	-70				-433	+411		
38		+53	-48				-347	+345		
36		+26	-21				-262	+246		
34		0	+3				-167	+155		
32		+100	-92				-130	+115		
30		+277	-274				-121	+115		
28		+342	-337				-108	+112		
26		+362	-357				-107	+109		
24		+361	-355				+6	0		
23		+356	-350				+23	-25		
21		+305	-300				+59	-76		
19		+220	-214				+95	-100		
18		+189	-184				+142	-140		
16		+169	-164				+179	-214		
14		+137	-133				+190	-214		

GEI FIELD SHEET
INCLINOMETER DATA

BORING 5I-85-2 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE Oct. 6, 1987 CALCULATED BY _____ ON _____

READ BY BS / PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
13		+85	-82				+198	-218		
11		-75	+78				+23	-48		
9		-188	+193				-88	+80		
8		-234	+238				-52	+34		
6		-264	+269				+140	-159		
4		-160	+162				+285	-307		
2		-66	+66				+360	-370		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 11-18-87 CALCULATED BY _____ ON _____
READ BY W. STUREK CHECKED BY _____ ON _____
INSTRUMENT NO. F-79-2

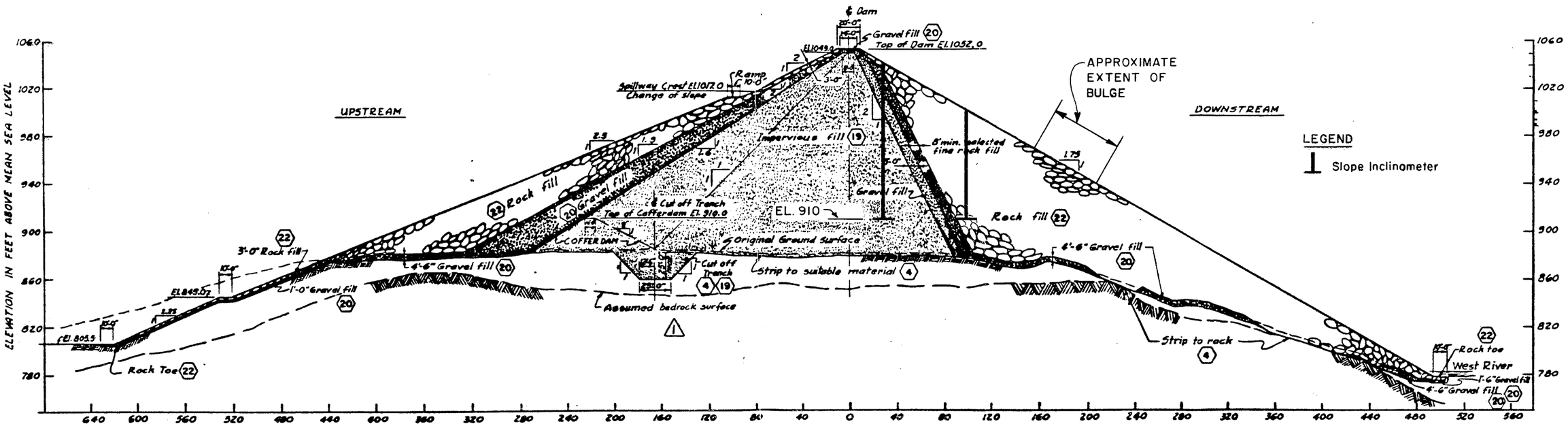
A+ D.S.

oth
o
SAND

k up
ver.
face
casing
34'

stick up
casing
0.34'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway (change) B-	B+	NEW DIFF.	CHANGE
91		+256	-253				+547	-540		
90		+267	-261				+606	-623		
88		+321	-313				+700	-716		
86		+269	-260				+795	-806		
85		+245	-231				+813	-814		
83		+238	-225				+763	-781		
81		+268	-259				+716	-738		
80		+260	-247				+693	-710		
78		+212	-200				+622	-642		
76		+178	-169				+543	-568		
75		+161	-153				+496	-520		
73		+200	-201				+404	-430		
71		+239	-229				+288	-310		
70		+235	-230				+258	-278		
68		+236	-222				+237	-250		
66		+218	-210				+220	-243		
64		+171	-161				+278	-295		
62		+132	-125				+404	-413		
60		+133	-131				+474	-494		
58		+110	-103				+559	-583		
56		+92	-83				+589	-614		
54		+21	-14				+608	-634		
52		+12	-7				+632	-650		
50		+02	+2				+630	-640		
48		+68	-58				+650	-669		
46		+87	-77				+572	-589		
44		+81	-72				+555	-571		
42		+86	-80				+482	-505		
40		+78	-70				+414	-436		
38		+55	-46				+355	-379		
36		+28	-18				+257	-283		
34		+03	-5				+157	-179		
32		+103	-94				+125	-132		
30		+279	-274				+114	-129		
28		+344	-336				+112	-122		
26		+363	-355				+109	-107		
24		+362	-351				+ 1	- 27		
23		+357	-349				- 26	+ 7		
21		+305	-296				- 76	+53		
19		+221	-212				- 99	+81		
18		+190	-182				-139	+129		
16		+176	-164				-211	+194		
14		+138	-131				-216	+186		



SECTION AT STA. 8+50

DISTANCES FROM CENTERLINE IN FEET

Base drawing taken from NED-COE drawing CT-1-4174, Feb. 1957
Ball Mountain Dam, Embankment Sections and Profiles

U.S. Corps of Engineers Waltham, MA	Slope Inclinometer Monitoring Ball Mountain Dam Jamaica, VT	SLOPE INCLINOMETER LOCATION SECTION
GEOTECHNICAL ENGINEERS INC. WINCHESTER • MASSACHUSETTS	Project 86934	Sept. 18, 1986 Fig. 3

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-2 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 11-18-87 CALCULATED BY _____ ON _____

READ BY W. Sturek, S. Sudands

INSTRUMENT NO. F-79-2 CHECKED BY ! change + - ON _____

DEPTH	ORIG. DIFF.	AZ= Down stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+-	B+	NEW DIFF.	CHANGE
13		+88	-81				-221	+192		
11		-73	+79				-45	+20		
9		-187	+194				+79	-93		
8		-232	+239				+33	-56		
6		-262	+269				-161	+134		
4		-160	+165				-307	+289		
2		-38	+45				-404	+386		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 1 OF 2

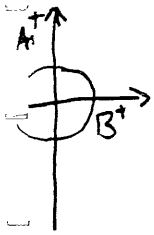
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis / P. Bailey CHECKED BY _____ ON _____

INSTRUMENT NO. _____

D.S.



.03 PICK-UP

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
134'		-10	+90				-923	+928		
132'		+4	+97				-882	+888		
130'		+43	+62				-867	+876		
128'		+55	+50				-828	+846		
126'		-18	+120				-750	+759		
124'		-107	+212				-671	+699		
122'		-113	+224				-653	+680		
120		-134	+244				-635	+653		
118		-178	+293				-596	+601		
116		-211	+236				-577	+607		
* 115		-167	+231				-540	+585		
* 113		-122	+232				-535	+554		
112		-110	+221				-523	+560		
110		-64	+177				-506	+540		
108		-79	+138				-459	+500		
106		+22	+176				-462	+481		
* 105		-19	+125				-487	+507		
* 103		+17	+92				-582	+593		
102		+27	+81				-605	+627		
100		+37	+72				-616	+659		
98		+74	+35				-660	+677		
96		+155	-44				-691	+705		
94		+222	-116				-719	+734		
92		+214	-103				-729	+747		
90		+287	-178				-706	+723		
88		+299	-188				-687	+677		
86		+301	-191				-608	+619		
84		+246	-138				-582	+601		
82		+182	-74				-532	+602		
80		+134	-20				-634	+643		
78		+85	+32				-664	+684		
76		+6	+105				-672	+697		
74		-23	+131				-675	+687		
72		-54	+164				-612	+627		
70		-63	+172				-621	+642		
68		-96	+208				-577	+539		
66		-110	+219				-522	+540		
* 65		-110	+220				-529	+543		
* 63		-74	+183				-501	+512		
* 61		+7	+103				-432	+450		
60		+26	+79				-415	+432		
58		+42	+65				-457	+460		
56		+13	+33				-477	+496		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 3

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 23, 1986 CALCULATED BY _____ ON _____

READ BY S. Edwards/D. Bailey

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

	DEPTH	ORIG. DIFF.	AZ=Down Stream A+	AZ=Down Stream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
43	54		+181	+15	-23			-485	+519	+506	
↓	53		+137	~~+72~~	-28			-472	+486	+504	
*	51		+153	-41				-474	+509		
	50		+160	-49				-515	+533		
	48		+137	-26				-514	+534		
	46		+116	-7				-515	+546		
	44		+168	-60				-575	+601		
	42		+204	-88				-496	+522		
	40		+239	-128				-399	+423		
	38		+177	-64				-135	+193		
	36		+75	+37				+22	+1		
	34		+26	+53				+99	-69		
	32		+13	+96				-74	+96		
	30		-48	+157				-309	+332		
	28		-106	+216				-404	+436		
	26		-48	+158				-464	+496		
	24		-31	+144				-484	+503		
	22		+8	+104				-365	+407		
	20		+111	~~+~~-1				-298	+327		
	18		+63	+47				-242	+271		
	16		+47	+63				-254	+270		
	14		-105	+216				-143	+172		
*	13		-168	+230				-81	+109		
*	~~12~~ 11		-146	+257				-38	+141		
*	9		-54	+162				-141	+153		
	8		+10	+100				-175	+197		
	6		+123	-14				-185	+200		
	4		+217	-106				-167	+210		
	2		+364					-264			

GEI FIELD SHEET
INCLINOMETER DATA

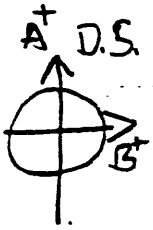
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE April 1, 1986 CALCULATED BY _____ ON _____

READ BY SJS, MAM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above PVC casing = 1.03

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		-24	+86				-940	+938		
132		-17	+86				-874	+881		
130		+19	+48				-873	+876		
128		+29	+39				-830	+845		
126		-40	+107				-748	+751		
124		-131	+199				-673	+686		
122		-139	+210				-662	+678		
120		-161	+227				-629	+645		
118		-207	+276				-594	+599		
116		-238	+218				-564	+575		
115		-163	+234				-567	+584		
113		-144	+215				-537	+560		
112		-131	+203				-534	+553		
110		-90	+160				-506	+532		
108		-56	+125				-471	+507		
106		+1	+157				-452	+480		
105		-40	+106				-485	+502		
103		-5	+72				-594	+599		
102		+5	+63				-610	+627		
100		+15	+51				-621	+650		
98		+44	+19				-674	+684		
96		+128	-65				-688	+700		
94		+196	-131				-724	+741		
92		+186	-118				-734	+746		
90		+264	-193				-712	+739		
88		+274	-202				-673	+684		
86		+279	-206				-609	+634		
84		+223	-150				-586	+611		
82		+153	-86				-576	+603		
80		+104	-34				-627	+647		
78		+51	+19				-674	+687		
76		-20	+88				-670	+696		
74		-52	+125				-670	+689		
72		-87	+156				-608	+635		
70		-96	+165				-613	+630		
68		-115	+190				-577	+594		
66		-138	+209				-531	+549		
65		-137	+209				-529	+534		
63		-94	+164				-498	+501		
61		-13	+84				-422	+436		
60		+5	+61				-421	+427		
58		+23	+46				-450	+471		
56		+54	+16				-489	+518		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE April 1, 1986 CALCULATED BY _____ ON _____

READ BY MAM, SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+122	-42				-486	+526		
53.		+116	-48				-485	+492		
51		+131	-59				-481	+498		
50		+139	-68				-513	+533		
48		+124	-52				-535	+547		
46		+109	-38				-525	+546		
44		+165	-95				-578	+603		
42		+201	-121				-497	+516		
40		+227	-157				-407	+429		
38		+157	-84				-186	+211		
36		+46	+23				+26	-9		
34.		+8	+61				+109	-86		
32.		-17	+88				-78	+98		
30		-81	+150				-314	+327		
28		-132	+200				-414	+440		
26		-76	+149				-474	+490		
24		-58	+134				-484	+509		
22		-12	+83				-367	+394		
20		+88	-18				-298	+295		
18		+40	+31				-258	+264		
16		+21	+49				-256	+272		
14		-133	+204				-144	+149		
13		-194	+269				-88	+93		
11		-171	+241				-94	+116		
9		-74	+143				-156	+174		
8		-10	+82				-182	+196		
6		+106	-35				-181	+204		
4		+201	-128				-178	+198		
2		+330	-176				-271	+293		

Water Encountered At 116 ft Depth

@ 19'
cable

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-3 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE May 13, 1986 CALCULATED BY _____ ON _____
READ BY SJS/PAD
INSTRUMENT NO. SJS/PAD CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		-19	+84				-881	940		
132		-13	91				-824	897		
130		+24	53				-821	895		
128		+32	38				-784	857		
126		-36	104				-692	758		
124		-133	203				-595	692		
122		-139	212				-596	688		
120		-161	232				-561	662		
118		-212	279				-523	622		
116		-247	224				-476	595		
~~114~~ 115		-170	237				-491	576		
~~112~~ 113		-147	220				-474	569		
112		-134	203				-447	561		
110		-92	161				-420	524		
108		-60	125				-421	511		
106		-2	151				-387	461		
105		-43	106				-410	500		
103		-11	75				-514	595		
102		0	63				-543	628		
100		+8	57				-546	632		
98		+43	24				-594	680		
96		+125	-60				-633	711		
94		+191	-128				-678	733		
92		+185	-115				-687	752		
90		+260	-192				-677	718		
88		+270	-200				-626	686		
86		275	-208				-568	623		
84		219	-151				-542	611		
82		149	-86				-535	601		
80		100	-31				-580	651		
78		50	-21				-615	697		
76		-21	+87				-610	689		
74		-56	125				-597	696		
72		-90	158				-534	637		
70		-100	168				-535	641		
68		-119	193				-491	583		
66		-141	207				-440	551		
65		-140	211				-441	543		
63		-99	165				-414	517		
61		-15	85				-355	430		
60		+4	61				-352	424		
58		20	45				-378	470		
56		50	16				-422	515		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SB-85-3 PAGE 2 OF 2

PROJECT NO. 85769
DATE May 13 1986
READ BY SJS / PAD
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
54		161	-4				-436	516		
53		113	-49				-429	493		
51		127	-59				-425	505		
50		133	-68				-470	512		
48		119	-52				-471	549		
46		106	-38				-471	547		
44		162	-99				-529	593		
42		196	-124				-449	532		
40		224	-160				-364	410		
38		153	-87				-141	225		
36		46	+17				+88	10		
34		11	54				+177	-69		
32		-17	83				+8	+103		
30		-82	151				-228	321		
28		-133	201				-326	441		
26		-78	149				-402	495		
24		-60	132				-407	510		
22		-16	83				-296	407		
20		+84	-19				-247	298		
18		38	+30				-185	271		
16		19	51				-190	276		
14		-134	205				-63	166		
13		-194	265				-8	89		
11		-168	236				-7	114		
9		-74	141				-75	173		
8		-8	77				-109	175		
6		+107	-39				-132	210		
4		+206	-137				-148	213		
2		+—					—			

Water at 118 ft

GEI FIELD SHEET
INCLINOMETER DATA

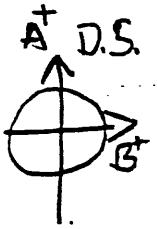
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. ~~85769~~ 86937 PROJECT NAME Ball Mountain Dam

DATE June 16, 1986 CALCULATED BY _____ ON _____

READ BY MTM/SS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above P.V.C. casing = 1.03'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
134		-12	085				-913	942		
132.		-8	090				-863	898		
130		+30	052				-860	900		
128		+43	037				-826	841		
126		-35	109				-737	763		
124		-127	205				-653	686		
122		-129	211				-656	690		
120		-153	233				-628	650		
118		-196	281				-590	606		
116		-226	217				-555	613		
115		-154	238				-549	582		
113		-134	217				-531	555		
112.		-122	202				-530	551		
110		-80	162				-494	521		
108		-47	127				-470	516		
106		-13	155				-432	470		
105		-29	112				-489	506		
103		+2	078				-589	601		
102		+12	066				-613	633		
100		+18	057				-620	636		
98		+54	027				-657	683		
96		+139	-061				-689	708		
94		+207	-130				-715	737		
92		+196	-114				-725	755		
90		+275	-191				-709	730		
88		+280	-198				-658	687		
86		+288	-206				-626	629		
84		+229	-146				-584	608		
82		+161	-085				-565	594		
80		+111	-030				-622	645		
78		+57	023				-661	695		
76		-12	088				-659	693		
74		-46	125				-661	683		
72		-78	162				-600	640		
70		-88	170				-609	642		
68		-110	196				-564	595		
66		-129	209				-529	545		
65		-131	215				-511	551		
63		-86	169				-492	512		
61		-4	092				-410	440		
60		+16	068				-412	440		
58		+30	050				-440	472		
56		+61	019				-481	518		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE June 16 1986 CALCULATED BY _____ ON _____
READ BY MTM/SJS
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
54		+124	-038				-483	530		
53.		+124	-043				-475	498		
51		+136	-054				-474	515		
50		+146	-064				-504	534		
48		+129	-050				-511	555		
46		+116	-036				-513	552		
44		+175	-096				-567	601		
42		+208	-121				-483	534		
40		+234	-153				-390	450		
38		+157	-082				-175	233		
36		+ 49	025				+ 34	006		
34		+ 10	061				+120	-071		
32		- 15	092				- 68	111		
30		- 79	157				-312	341		
28		-128	206				-420	452		
26		- 71	154				-458	501		
24		- 53	136				-469	516		
22		- 5	086				-357	405		
20		+96	-016				-287	317		
18		+ 43	036				-240	277		
16		+ 25	055				-247	269		
14		-133	209				-139	165		
13		-192	274				-86	108		
11		-159	243				- 93	123		
9		- 65	144				-142	177		
8		+ 3	079				-170	200		
6		+115	-037				-179	217		
4		+219	-134				-190	219		
2		+330	-201				-249	273		

Water encountered at 109'

GEI FIELD SHEET
INCLINOMETER- DATA

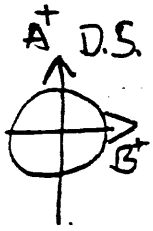
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY Steve Rorch, Steve Serandis

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



Depth to Sand?

STICK UP above ~~Pvc~~ surface Cap = .65

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		3	88				-912	946		
132		12	90				-866	899		
130		41	57				-857	890		
128		59	39				-835	853		
126		-5	101				-756	786		
124		-117	213				-651	682		
122		-119	219				-654	681		
120		-138	235				-634	659		
118		-182	284				-592	617		
116		-181	272				-562	606		
115		-149	245				-554	578		
113		-128	227				-532	568		
112		-113	210				-521	556		
110		-72	171				-507	543		
108		-40	136				-481	516		
106		-4	121				-448	474		
105		-21	115				-478	501		
103		12	84				-575	606		
102		25	70				-603	634		
100		35	64				-611	643		
98		57	35				-643	675		
96		144	-50				-687	714		
94		218	-124				-715	744		
92		207	-115				-714	750		
90		279	-185				-699	739		
88		292	-196				-652	681		
86		298	-203				-600	626		
84		245	-149				-577	609		
82		173	-83				-563	595		
80		125	-27				-613	648		
78		75	23				-651	699		
76		6	92				-658	700		
74		-34	129				-659	694		
72		-70	164				-599	633		
70		-80	174				-612	647		
68		-98	198				-567	601		
66		-122	214				-516	553		
65		-121	219				-514	542		
63		-84	174				-489	511		
61		-1	96				-417	442		
60		20	71				-403	431		
58		36	54				-433	475		
56		65	26				-486	517		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86937 PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY _____ ON _____
READ BY SSS, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		178	3				-480	511		
53.		132	-43				-457	494		
51		145	-50				-466	512		
50		152	-59				-492	538		
48		141	-45				-516	556		
46		127	-33				-518	548		
44		179	-88				-561	603		
42		216	-119				-488	519		
40		240	-147				-392	443		
38		170	-77				-185	230		
36		61	30				25	17		
34		24	67				117	-71		
32		-2	95				-78	100		
30		-65	159				-296	332		
28		-116	210				-415	443		
26		-63	159				-456	495		
24		-44	140				-472	510		
22		1	93				-356	405		
20		104	-12				-291	319		
18		53	39				-239	265		
16		36	57				-246	267		
14		-120	213				-147	151		
13		-184	279				-82	105		
11		-154	247				-83	122		
9		-54	147				-137	180		
8		11	84				-164	186		
6		128	-35				-174	210		
4		226	-132				-177	214		
2		381	-153				-232	267		

Encountered Water at 115 ft

GEI FIELD SHEET
INCLINOMETER DATA

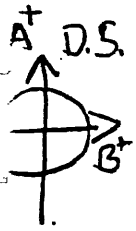
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE AUGUST 19 1986 CALCULATED BY _____ ON _____

READ BY R BOBBY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



pth to
sand?
0.57'

ck up
ove
face
casing
1.65'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		2	87				-937	926		
132.		5	93				-886	889		
130		39	60				-881	881		
128		57	43				-852	848		
126		-10	108				-764	772		
124		-122	218				-660	665		
122		-124	222				-654	666		
120		-143	241				-642	645		
118		-186	286				-597	604		
116		-220	228				-559	590		
115		-150	246				-566	563		
113		-130	228				-538	558		
112.		-115	212				-533	540		
110		-73	171				-512	516		
108		-43	139				-485	493		
106		+18	160				-463	450		
105		-25	116				-485	485		
103		+8	86				-593	589		
102		19	70				-612	619		
100		29	66				-626	629		
98		55	37				-664	670		
96		141	-49				-694	700		
94		218	-123				-727	738		
92		206	-109				-721	748		
90		281	-180				-714	729		
88		290	-190				-665	678		
86		296	-199				-606	622		
84		241	-143				-588	605		
82		171	-80				-575	594		
80		178	-25				-632	639		
78		69	25				-668	678		
76		-3	95				-676	687		
74		-37	132				-671	676		
72		-72	169				-622	625		
70		-83	177				-627	637		
68		-102	201				-582	588		
66		-125	216				-539	545		
65		-124	221				-530	537		
63		-85	174				-504	488		
61		0	97				-420	439		
60		22	73				-417	427		
58		33	58				-448	461		
56		65	27				-488	500		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 19 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		179	6				-490	507		
53.		133	-38				-470	490		
51		144	-49				-481	495		
50		153	-57				-500	517		
48		138	-44				-518	536		
46		124	-31				-523	535		
44		177	-88				-575	575		
42		213	-113				-492	506		
40		238	-146.				-408	430		
38		166	-75				-194	196		
36		60	31				721	-4		
34.		26	65				104	-96		
32.		-5	97				-81	83		
30		-70	162				-307	321		
28		-122	214				-419	426		
26		-67	160				-470	484		
24		-48	144				-489	493		
22		1	90				-376	388		
20		+102	-11				-299	313		
18		52	40				-246	260		
16		35	60				-257	268		
14		-124	215				-153	164		
13		-187	280				-104	87		
11		-155	246				-100	105		
9		-56	144				-144	153		
8		+10	81				-166	173		
6		131	-40				-184	195		
4		225	-132				-189	202		
2		361	-169				-259	264		

WATER ENCOUNTERED @ 115'

GEI FIELD SHEET
INCLINOMETER DATA

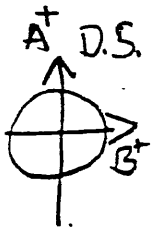
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE Sept 22, 1986 CALCULATED BY _____ ON _____

READ BY J. Toothaker/Steve Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? _____

STICK UP above Surface casing = .65'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		− 5	+ 86				− 914	+ 941		
132.		+ 2	+ 90				− 868	+ 888		
130		+ 35	+ 54				− 869	+ 890		
128		+ 55	+ 38				− 838	+ 857		
126		− 12	+ 100				− 764	+ 787		
124		− 121	+ 214				− 652	+ 684		
122		− 125	+ 219				− 650	+ 683		
120		− 144	+ 236				− 624	+ 660		
118		− 188	+ 281				− 588	+ 618		
116		− 216	+ 256				− 551	+ 605		
115		− 150	+ 240				− 552	+ 573		
113		− 132	+ 222				− 535	+ 557		
112.		− 118	+ 205				− 526	+ 556		
110		− 78	+ 165				− 501	+ 538		
108		− 44	+ 132				− 472	+ 505		
106		+ 17	+ 151				− 458	+ 460		
105		− 26	+ 109				− 486	+ 504		
103		+ 7	+ 79				− 573	+ 607		
102		+ 18	+ 64				− 607	+ 632		
100		+ 28	+ 58				− 614	+ 642		
98		+ 52	+ 30				− 655	+ 682		
96		+ 140	− 57				− 675	+ 709		
94		+ 218	− 130				− 719	+ 756		
92		+ 205	− 120				− 718	+ 756		
90		+ 276	− 190				− 701	+ 736		
88		+ 286	− 196				− 663	+ 685		
86		+ 292	− 204				− 609	+ 634		
84		+ 242	− 148				− 585	+ 606		
82		+ 170	− 84				− 570	+ 606		
80		+ 121	− 31				− 610	+ 645		
78		+ 72	+ 18				− 664	+ 696		
76		− 3	+ 90				− 668	+ 701		
74		− 40	+ 123				− 665	+ 684		
72		− 73	+ 160				− 605	+ 630		
70		− 84	+ 170				− 619	+ 649		
68		− 102	+ 195				− 578	+ 600		
66		− 125	+ 207				− 529	+ 552		
65		− 127	+ 212				− 519	+ 538		
63		− 86	+ 170				− 493	+ 508		
61		+ 1	+ 90				− 416	+ 449		
60		+ 21	+ 67				− 405	+ 430		
58		− 36	+ 51				− 455	+ 473		
56		+ 65	+ 21				− 494	+ 515		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE Sept 22, 1986 CALCULATED BY _____ ON _____
READ BY Jeff Bittaker / Steve Sarandis
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+ 179	- 4				- 489	+ 517		
53.		+ 132	- 47				- 474	+ 494		
51		+ 143	- 53				- 471	+ 507		
50		+ 151	- 62				- 511	+ 531		
48		+ 136	- 47				- 518	+ 553		
46		+ 125	- 36				- 516	+ 555		
44		+ 176	- 91				- 576	+ 592		
42		+ 215	- 122				- 490	+ 523		
40		+ 238	- 147				- 394	+ 436		
38		+ 167	- 75				- 183	+ 213		
36		+ 59	+ 31				+ 31	+ 5		
34		+ 27	+ 64				+ 116	- 74		
32		- 3	+ 92				- 82	+ 100		
30		- 71	+ 158				- 297	+ 328		
28		- 122	+ 208				- 405	+ 443		
26		- 66	+ 155				- 457	+ 481		
24		- 49	+ 138				- 469	+ 511		
22		+ 1	+ 88				- 363	+ 404		
20		+ 100	- 15				- 288	+ 313		
18		+ 50	+ 37				- 241	+ 272		
16		+ 32	+ 55				- 247	+ 270		
14		- 125	+ 210				- 143	+ 168		
13		- 187	+ 275				- 82	+ 103		
11		- 156	+ 246				- 90	+ 124		
9		- 55	+ 142				- 149	+ 178		
8		+ 12	+ 79				- 159	+ 198		
6		+ 132	- 45				- 182	+ 212		
4		+ 228	- 135				- 184	+ 209		
2		+ 369	- 184				- 259	+ 279		

GEI FIELD SHEET
INCLINOMETER DATA

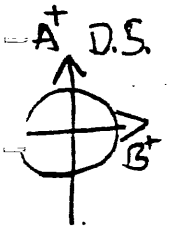
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 11/8/86 CALCULATED BY _____ ON _____

READ BY PGC / SJS

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



-pth to Sand?

Tilt up base surface casing = .65'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		-7	+90				-929	+933		
132.		-4	+92				-870	+881		
130		+31	+56				-868	+885		
128		+49	+38				-844	+851		
126		-18	+105				-762	+778		
124		-128	+216				-664	+676		
122		-132	+220				-655	+680		
120		-152	+236				-630	+642		
118		-195	+282				-597	+601		
116		-224	+221				-559	+576		
115		-155	+242				-563	+573		
113		-138	+221				-529	+556		
112.		-123	+205				-530	+550		
110		-82	+165				-507	+524		
108		-49	+132				-489	+505		
106		+10	+159				-454	+470		
105		-31	+110				-471	+499		
103		+3	+79				-576	+595		
102		+18	+66				-618	+624		
100		+23	+59				-619	+636		
98		+48	+31				-659	+671		
96		+137	-57				-689	+701		
94		+214	-130				-722	+742		
92		+199	-116				-725	+738		
90		+275	-191				-715	+725		
88		+284	-196				-667	+678		
86		+292	-205				-609	+626		
84		+235	-145				-591	+599		
82		+164	-84				-575	+593		
80		+116	-30				-632	+636		
78		+66	+21				-665	+680		
76		-6	+89				-666	+687		
74		-42	+127				-672	+686		
72		-75	+161				-614	+627		
70		-86	+169				-621	+640		
68		-104	+195				-577	+581		
66		-128	+210				-527	+552		
65		-125	+215				-532	+539		
63		-87	+169				-511	+500		
61		-1	+88				-421	+438		
60		+17	+66				-405	+421		
58		+33	+51				-457	+471		
56		+03	+19				-501	+507		

STo = .2
BTs = 6.1

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11/8/86 CALCULATED BY _____ ON _____

READ BY PGC/SJS

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+136	-41				-484	+522		
53.		+129	-45				-468	+485		
51		+139	-54				-474	+503		
50		+147	-64				-503	+524		
48		+134	-50				-519	+540		
46		+121	-38				-521	+544		
44		+174	-95				-571	+577		
42		+212	-123				-493	+524		
40		+237	-153				-404	+429		
38		+165	-79				-188	+213		
36		+58	+27				+26	+1		
34		+26	+59				+108	-83		
32		-7	+90				-67	+99		
30		-75	+159				-307	+328		
28		-126	+208				-416	+439		
26		-70	+153				-466	+485		
24		-51	+138				-484	+502		
22		-2	+85				-371	+396		
20		+100	-17				-302	+306		
18		+49	+34				-269	+253		
16		+30	+55				-261	+257		
14		-128	+210				-161	+155		
13		-190	+274				-104	+99		
11		-163	+244				-114	+107		
9		-59	+138				-147	+173		
8		+6	+75				-168	+186		
6		+127	-47				-184	+202		
4		+222	-140				-196	+214		
2		+373	-181				-263	+278		

GEI FIELD SHEET
INCLINOMETER DATA

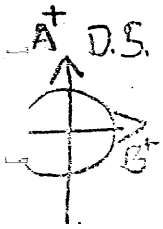
BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 5/8/87 CALCULATED BY _____ ON _____

READ BY PGC/CRC

INSTRUMENT NO. S/N 25222 CHECKED BY _____ ON _____



epth to Sand?

ick up from surface casing 165'

CKUP = 0.168

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B−	NEW DIFF.	CHANGE
134		-8	+84				-942	+939		
132		-2	+90				-893	+881		
130		+27	+54				-886	+884		
128		+50	+35				-860	+862		
126		-11	+91				-774	+792		
124		-127	+212				-656	+678		
122		-131	+220				-660	+674		
120		-150	+236				-638	+657		
118		-190	+277				-600	+618		
116		-180	+264				-561	+600		
115		-154	+244				-569	+577		
113		-134	+227				-542	+569		
112		-120	+205				-534	+550		
110		-79	+168				-511	+539		
108		-46	+135				-483	+511		
106		-23	+114				-459	+467		
105		-28	+109				-470	+495		
103		+6	+80				-579	+594		
102		+18	+66				-611	+629		
100		+28	+60				-609	+635		
98		+48	+37				-658	+669		
96		+140	-52				-680	+704		
94		+218	-130				-732	+745		
92		+203	-112				-726	+752		
90		+278	-189				-714	+735		
88		+285	-193				-668	+684		
86		+294	-203				-610	+624		
84		+243	-151				-595	+610		
82		+168	-84				-573	+594		
80		+118	-30				-622	+637		
78		+70	+18				-670	+686		
76		-5	+91				-670	+691		
74		-39	+131				-671	+680		
72		-75	+159				-624	+634		
70		-86	+170				-622	+630		
68		-106	+194				-575	+598		
66		-127	+211				-529	+552		
65		-129	+216				-529	+541		
63		-89	+176				-501	+509		
61		0	+90				-417	+439		
60		+20	+66				-406	+414		
58		+33	+52				-449	+465		
56		+64	+22				-489	+505		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 8 MAY 87 CALCULATED BY _____ ON _____
READ BY PGC / CRC
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+140	-2				-483	+508		
53.		+132	-47				-471	+487		
51		+143	-55				-492	+500		
50		+153	-66				-507	+524		
48		+152	-64				-533	+546		
46		+142	-54				-531	+546		
44		+228	-144				-577	+600		
42		+257	-163				-501	+525		
40		+253	-163				-413	+439		
38		+172	-83				-186	+188		
36		+66	+21				+25	-9		
34		+39	+49				+105	-93		
32		-14	+104				-70	+97		
30		-82	+168				-312	+336		
28		-126	+211				-412	+440		
26		-68	+155				-478	+485		
24		-49	+138				-480	+486		
22		0	+88				-368	+395		
20		+101	-11				-293	+313		
18		+51	+39				-263	+271		
16		+28	+61				-253	+271		
14		-128	+214				-146	+162		
13		-190	+281				-88	+109		
11		-164	+254				-162	+120		
9		-56	+143				-145	+168		
8		+16	+76				-166	+185		
6		+140	-49				-181	+204		
4		+231	-140				-191	+210		
2		+387	-192				-268	+288		

* Water Level 06-5-85 at 20' from Picks Bottom.

GEI FIELD SHEET
INCLINOMETER DATA

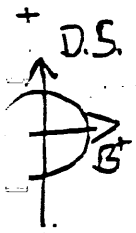
BORING 51-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE JUNE 22, 1987 CALCULATED BY _____ ON _____

READ BY PGC / CRC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____



pth to
and?

ck up
ve
ace
casing
65'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		-2	+71				-910	+972		
132		-2	+79				-855	+916		
130		+20	+47				-841	+908		
128		+49	+28				-829	+881		
126		-6	+78				-752	+819		
124		-130	+203				-630	+697		
122		-141	+209				-631	+701		
120		-157	+225				-605	+681		
118		-196	+267				-576	+646		
116		-192	+257				-535	+615		
115		-165	+235				-539	+600		
113		-145	+218				-512	+578		
112		-132	+201				-505	+572		
110		-90	+162				-486	+557		
108		-59	+128				-454	+524		
106		-34	+102				-430	+500		
105		-37	+103				-444	+509		
103		-4	+72				-542	+617		
102		+7	+56				-575	+643		
100		+18	+51				-578	+659		
98		+33	+32				-619	+692		
96		+125	-59				-649	+726		
94		+205	-138				-689	+766		
92		+195	-124				-698	+765		
90		+267	-192				-686	+762		
88		+279	-203				-640	+698		
86		+287	-214				-594	+641		
84		+237	-162				-568	+627		
82		+162	-93				-551	+610		
80		+111	-39				-590	+662		
78		+63	+7				-642	+706		
76		-11	+82				-642	+710		
74		-46	+118				-644	+713		
72		-81	+156				-588	+658		
70		-94	+162				-595	+665		
68		-111	+186				-555	+624		
66		-134	+205				-507	+575		
65		-134	+209				-504	+568		
63		-99	+170				-475	+529		
61		-10	+87				-395	+463		
60		+8	+63				-376	+450		
58		+23	+48				-420	+489		
56		+52	+18				-461	+528		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86924 PROJECT NAME Bull Mountain Dam

DATE 22 JUNE 87 CALCULATED BY _____ ON _____

READ BY PGC / CEC

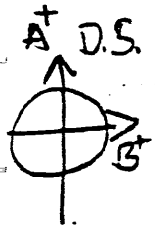
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+171	-6				-467	+533		
53.		+123	-52				-450	+516		
51		+136	-60				-447	+517		
50		+145	-74				-473	+537		
48		+142	-73				-497	+565		
46		+135	-62				-502	+568		
44		+218	-149				-546	+621		
42		+249	-170				-475	+540		
40		+245	-167				-385	+453		
38		+166	-89				-161	+240		
36		+59	+12				+49	+23		
34		+30	+42				+129	-64		
32		-23	+97				-38	+116		
30		-91	+163				-286	+355		
28		-134	+205				-403	+454		
26		-81	+152				-434	+509		
24		-61	+133				-449	+521		
22		-10	+84				-348	+421		
20		+95	-18				-266	+343		
18		+42	+31				-224	+288		
16		+18	+53				-229	+296		
14		-138	+209				-118	+192		
13		+200	+274				-67	+132		
11		-174	+246				-73	+146		
9		-60	+134				-119	+194		
8		+9	+67				-148	+209		
6		+131	-59				-159	+230		
4		+223	-150				-165	+235		
2		+378	-201				-249	+315		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE October 5, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = ~~1.65'~~ ~~0.72'~~ 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		-43	+41				-916	+917		
132		-36	+40				-882	+877		
130		0	+2				-882	+864		
128		+11	-14				-845	+843		
126		-60	+55				-768	+764		
124		-168	+165				-661	+661		
122		-171	+171				-669	+655		
120		-192	+190				-648	+639		
118		-230	+232				-610	+604		
116		-255	+172				-567	+570		
115		-190	+192				-567	+562		
113		-172	+175				-552	+548		
112		-159	+156				-554	+536		
110		-118	+117				-520	+517		
108		-84	+84				-499	+485		
106		-24	+111				-466	+459		
105		-66	+63				-492	+479		
103		-32	+28				-588	+579		
102		-19	+14				-623	+604		
100		-14	+12				-632	+617		
98		+10	-15				-662	+650		
96		+102	-106				-692	+682		
94		+182	-184				-733	+723		
92		+165	-164				-738	+728		
90		+244	-242				-724	+714		
88		+244	-242				-672	+664		
86		+254	-251				-620	+614		
84		+194	-193				-592	+592		
82		+122	-129				-578	+573		
80		+73	-76				-627	+621		
78		+25	-28				-674	+663		
76		-45	+40				-683	+668		
74		-87	+82				-672	+670		
72		-117	+117				-613	+612		
70		-127	+124				-621	+629		
68		-146	+151				-586	+582		
66		-166	+166				-540	+537		
65		-170	+172				-536	+531		
63		-126	+126				-502	+506		
61		-38	+39				-439	+427		
60		-19	+20				-432	+419		
58		-10	+5				-455	+450		
56		+21	-26				-494	+488		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE October 5, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+90	-49				-493	+494		
53.		+88	-90				-479	+478		
51		+100	-101				-484	+483		
50		+109	-115				-507	+500		
48		+109	-113				-529	+518		
46		+99	-103				-531	+526		
44		+186	-192				-580	+573		
42		+212	-209				-495	+505		
40		+207	-207				-422	+415		
38		+123	-123				-202	+184		
36		+18	-19				-3	-18		
34		-3	+2				+82	-95		
32		-60	+62				-109	+79		
30		-129	+125				-325	+316		
28		-171	+167				-426	+411		
26		-113	+107				-468	+463		
24		-93	+92				-483	+473		
22		-38	+40				-390	+376		
20		+60	-61				-307	+301		
18		+7	-7				-267	+250		
16		-13	+15				-270	+252		
14		-175	+173				-170	+152		
13		-235	+236				-110	+77		
11		-205	+208				-105	+109		
9		-94	+90				-157	+151		
8		-19	+18				-174	+163		
6		+102	-103				-194	+181		
4		+190	-189				-198	+188		
2		+334	-239				-290	+272		

A+ B+ label was wet at 23'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 11-18-1987 CALCULATED BY _____ ON _____

READ BY W. Stuick, S. Sarand's

INSTRUMENT NO. E-79-2 CHECKED BY _____ ON _____

A+ D.S.

pth to
sand?

ck up
ove
free
casing
.65'

ick up.
0.71'

DEPTH	ORIG. DIFF.	AZ= Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
134		-46	+39				-937	+918		
132.		-34	+42				-899	868		
130		+3	+3				-887	+853		
128		12	-12				-837	+828		
126		-58	+57				-766	+758		
124		-166	166				-666	654		
122		-167	174				-674	650		
120		-190	190				-653	+632		
118		-227	234				-615	+595		
116		-250	+170				-574	+573		
115		-186	+194				-574	+551		
113		-169	+177				-557	542		
112.		-150	+156				-538	525		
110		-109	120				-530	511		
108		-87	88				-497	486		
106		-23	125				-465	453		
105		-64	58				-497	480		
103		-27	30				-597	577		
102		-14	17				-626	606		
100		-17	18				-628	623		
98		+14	-13				-671	659		
96		106	-103				-695	683		
94		184	-182				-742	720		
92		166	-162				-738	719		
90		245	-241				-725	705		
88		247	-240				-672	653		
86		257	-251				-622	604		
84		198	-194				-598	584		
82		127	-127				-585	566		
80		76	-72				-630	623		
78		28	-24				-676	659		
76		-43	+42				-686	661		
74		-84	85				-675	665		
72		-114	120				-619	611		
70		-124	127				-620	617		
68		-144	154				-596	574		
66		-163	167				-549	532		
65		-165	174				-540	525		
63		-123	126				-514	502		
61		-34	43				-440	417		
60		-11	22				-450	420		
58		+3	+8				-481	444		
56		+63	-24				-504	481		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-3 PAGE 2 OF 2

PROJECT NO. 86924 PROJECT NAME Bo 11 Mountain Dam

DATE 11-18-87 CALCULATED BY ON

READ BY W. Stuck, S. Sorando

INSTRUMENT NO. F-79-2 CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
54		+95	-92				-480	494		
53.		+92	-90				-481	472		
51		+103	-101				-506	476		
50		+112	-114				-513	490		
48		113	-113				-534	510		
46		103	-102				-538	517		
44		192	-193				-588	563		
42		218	-211				-522	498		
40		213	-209				-424	406		
38		128	-125				-213	173		
36		23	-18				-1	-29		
34		0	+3				78	-100		
32.		-59	62				-116	+89		
30		-128	130				-330	312		
28		-168	168				-434	410		
26		-110	109				-472	461		
24		-90	93				-484	462		
22		-35	42				-391	367		
20		61	-59				-305	296		
18		10	-5				-276	251		
16		-11	+18				-270	247		
14		-175	+176				-171	148		
13		-234	+236				-115	+94		
11		-203	+208				-113	+103		
9		-84	90				-164	+149		
8		-13	+14				-182	+170		
6		105	-103				-202	+181		
4		195	-190				-208	+189		
2		297	-296				-284	+284		

GEI FIELD SHEET
INCLINOMETER DATA

BORING 5I-85-4 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarkanis / R. Berry

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
92'		+452	-346				-389	+401		
10'		+455	-345				-392	+417		
88'		+610	-502				-423	+447		
86'		+707	-597				-409	+437		
84'		+704	-595				-338	+369		
82'		+663	-554				-245	+272		
80'		+709	-601				-193	+220		
78		+692	-581				-179	+210		
76		+669	-561				-112	+125		
75		+638	-529				-73	+94		
73		+563	-453				-14	+42		
71		+483	-374				-12	+45		
70		+401	-352				-25	+41		
68		+405	-297				-44	+71		
66		+298	-189				-110	+123		
65		+250	-140				-147	+171		
63		+163	-54				-229	+240		
61		-19	+8				-285	+302		
60		+115	-6				-325	+343		
58		+202	-93				-316	+347		
56		+341	-226				-324	+355		
54		+362	-251				-403	+430		
52		+317	-203				-340	+362		
50		+330	-222				-301	+326		
48		+337	-222				-268	+236		
46		+315	-204				-215	+233		
44		+355	-244				-179	+203		
42		+394	-279				-110	+140		
40		+343	-227				-142	+158		
38		+356	-241				-166	+187		
36		+382	-269				-140	+157		
34		+379	-261				-150	+183		
32		+358	-243				-119	+185		
30		+375	-203				-64	+79		
[illegible]		+413	-298				-63	+85		
[illegible]		+346	-229				-59	+75		
[illegible]		+351	-271				-10	+49		
23		+489	-376				+62	-58		
20		+632	-521				+214	-170		
18 19		+481	-367				+113	-71		
18		+391	-275				+48	-19		
16		+218	-106				-49	+80		
14		+122	-9				-133	+161		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Sarandis / R. Berry CHECKED BY _____ ON _____

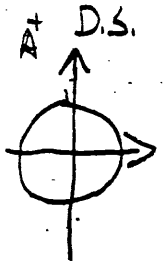
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
* 13		+105	+7				-157	+185		
* 11		+130	-20				-167	+211		
* 9		+146	-34				-146	+173		
8		+154	-41				-117	+150		
6		+151	-38				-191	+219		
4		+166	-53				-323	+349		
2		+190	-72				-419	+460		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE MARCH 31, 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? 1.54

Stick up above surface casing = .6'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+455	-371				-375	+391		
90.		+449	-359				-391	+406		
88		+601	-511				-436	+443		
86		+699	-608				-413	+431		
84		+707	-617				-354	+361		
82		+658	-571				-253	+258		
80		+708	-619				-212	+213		
78		+694	-602				-185	+193		
76		+672	-582				-112	+120		
75		+639	-545				-81	+87		
73		+563	-472				-20	+26		
71.		+482	-389				-13	+26		
70.		+459	-368				-20	+31		
68		+408	-316				-32	+58		
66		+297	-205				-103	+115		
65		+250	-158				-153	+158		
63		+164	-72				-218	+244		
61		+96	-7				-268	+289		
60		+110	-16				-326	+335		
58		+192	-103				-321	+344		
56		+335	-241				-331	+357		
54		+364	-272				-394	+425		
52		+311	-213				-343	+374		
50		+330	-237				-294	+304		
48		+332	-239				-260	+289		
46		+311	-220				-214	+227		
44		+348	-257				-176	+209		
42		+388	-293				-112	+139		
40		+336	-245				-127	+157		
38		+350	-259				-162	+194		
36		+374	-284				-141	+169		
34		+373	-280				-141	+180		
32		+350	-257				-174	+211		
30		+365	-278				-66	+86		
28		+404	-313				-70	+85		
26		+338	-247				-70	+74		
24		+379	-287				-9	+42		
23		+479	-387				+65	-42		
21		+627	-536				+214	-181		
19		+482	-393				+116	-87		
18		+394	-302				+45	-26		
16		+210	-117				-57	+79		
14		+113	-20				-125	+153		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE March 31, 1986 CALCULATED BY _____ ON _____

READ BY MAM, SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
13		+97	-4				-145	+174		
11		+125	-36				-182	+206		
9		+142	-49				-135	+160		
8		+148	-58				-116	+142		
6		+151	-60				-205	+229		
4		+162	-75				-335	+362		
2		+192	-115				-424	+444		
	Dry	Hole								

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769
DATE May 14, 1986
READ BY PAD/SJS
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
92		451	-370				-389	394		
90		443	-359				-401	404		
88		595	-511				-432	449		
86		694	-610				-413	423		
84		703	-622				-353	366		
82		654	-573				-253	273		
80		704	-623				-209	228		
78		689	-608				-187	210		
76		664	-587				-108	131		
75		633	-553				-79	92		
73		555	-480				-17	29		
71		470	-396				-14	36		
70		450	-374				-28	46		
68		400	-324				-31	65		
66		287	-212				-99	123		
65		241	-165				-154	168		
63		156	-81				-229	246		
61		90	-14				-287	287		
60		99	-21				-341	340		
58		182	-104				-325	338		
56		328	-245				-340	354		
54		356	-281				-397	422		
52		301	-218				-348	365		
50		322	-239				-298	308		
48		322	-243				-272	277		
46		303	-224				-230	240		
44		339	-257				-190	212		
42		377	-297				-125	138		
40		327	-248				-142	155		
38		340	-262				-164	185		
36		366	-287				-142	163		
34		363	-283				-149	176		
32		341	-262				-183	196		
30		356	-279				-78	86		
28		395	-315				-73	78		
26		328	-248				-73	78		
24		369	-286				-10	36		
23		472	-387				67	-31		
21		616	-538				210	-184		
19		472	-398				111	-79		
18		383	-307				44	-25		
16		198	-123				-63	79		
14		101	-25				-136	147		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

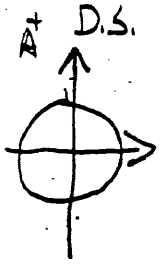
PROJECT NO. 85769
PROJECT NAME Ball Mountain Dam
DATE May 13, 1986
CALCULATED BY ON
READ BY SJS/PAD
INSTRUMENT NO.
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
13		86	-7				-150	177		
11		115	-37				-178	201		
9		134	-53				-138	162		
8		140	-63				-134	141		
6		142	-64				-214	229		
4		160	-83				-337	364		
2		190	-114				-337	390		
			Dry Hole							
	SI-85-2		May 14, 1986			SJS/PAD				
13		107	-32				208	-177		
11		-36	111				66	-24		
9		-161	239				-61	103		
8		-210	286				-27	55		
6		-229	306				+166	-132		
4		-130	209				301	-277		
2		-50	+143				400	-393		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE June 16, 1986 CALCULATED BY _____ ON _____
READ BY SSS / MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to sand?

Stick up above surface casing = .62'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		449	-370				-370	396		
90.		440	-360				-380	403		
88		591	-512				-421	451		
86		692	-611				-406	428		
84		705	-621				-342	366		
82		653	-575				-256	282		
80		706	-624				-204	244		
78		689	-608				-184	207		
76		666	-586				-108	134		
75		634	-551				-76	106		
73		589	-477				-11	047		
71.		474	-391				-13	046		
70.		451	-373				-15	049		
68		401	-318				-28	064		
66		289	-207				-100	121		
65		241	-160				-141	172		
63		156	-075				-216	256		
61		91	-009				-267	313		
60		103	-021				-322	351		
58		185	-104				-310	357		
56		328	-247				-324	361		
54		356	-279				-400	427		
52		299	-216				-330	370		
50		323	-237				-283	325		
48		323	-241				-252	296		
46		304	-222				-209	250		
44		339	-257				-179	216		
42		378	-295				-104	148		
40		329	-248				-126	167		
38		343	-261				-159	204		
36		370	-287				-128	172		
34		365	-283				-142	184		
32		341	-260				-176	200		
30		364	-275				-51	089		
28		400	-311				-70	099		
26		329	-241				-53	089		
24		373	-283				-5	047		
23		480	-389				+73	-042		
21		621	-540				+226	-182		
19		475	-394				+102	-070		
18		385	-303				+50	-018		
16		199	-138				-49	085		
14		101	-021				-115	153		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE June 16 1986 CALCULATED BY _____ ON _____

READ BY SJS/MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

0:35.77
9:49:48

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		85	-004				-143	181		
11		115	-034				-179	200		
9		139	-054				-136	170		
8		147	-065				-115	149		
6		150	-067				-216	241		
4		168	-084				-340	369		
2		198	-110				-331	369		

GEI FIELD SHEET
INCLINOMETER DATA

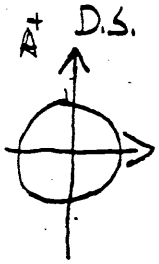
BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY Steve Porchy, Steve Serandis

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = .67'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-1	NEW DIFF.	CHANGE
92		459	-367				-371	389		
90.		449	-354				-377	391		
88		600	-507				-409	441		
86		700	-606				-399	426		
84		712	-617				-338	386		
82		662	-571				-242	278		
80		713	-622				-191	231		
78		697	-605				-168	211		
76		673	-584				-99	131		
75		641	-551				-64	102		
73		564	-475				-5	40		
71.		480	-391				2	46		
70.		458	-369				-12	39		
68		408	-319				-24	63		
66		295	-207				-45	122		
65		247	-159				-142	173		
63		161	-75				-212	248		
61		94	-8				-260	302		
60		103	-17				-314	337		
58		185	-100				-313	356		
56		331	-242				-319	368		
54		361	-278				-393	430		
52		300	-212				-333	378		
50		329	-238				-286	332		
48		326	-239				-253	301		
46		306	-221				-207	240		
44		341	-254				-193	221		
42		383	-294				-104	142		
40		334	-247				-134	165		
38		346	-259				-154	200		
36		373	-286				-132	172		
34		368	-282				-147	185		
32		342	-256				-171	204		
30		364	-276				-51	97		
28		404	-314				-53	93		
26		331	-242				-51	89		
24		373	-284				-9	48		
23		479	-390				65	-47		
21		626	-538				220	-193		
19		477	-391				113	-73		
18		389	-303				54	-19		
16		201	-116				-52	80		
14		106	-19				-119	156		

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-4 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE July 15, 1986 CALCULATED BY _____ ON _____

READ BY SJS, SR

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

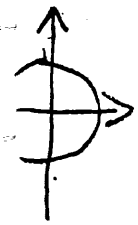
DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		88	-1				-145	176		
11		120	-34				-180	204		
9		140	-53				-127	165		
8		150	-63				-114	148		
6		153	-66				-199	241		
4		173	-87				-332	361		
2		201	-114				-367	400		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 19, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		452	-364				-380	396		
90.		444	-354				-394	404		
88		600	-510				-426	445		
86		695	-604				-411	428		
84		705	-617				-351	374		
82		658	-568				-254	268		
80		711	-621				-207	226		
78		694	-602				-184	203		
76		669	-578				-108	133		
75		637	-545				-82	93		
73		561	-473				-13	37		
71.		477	-386				-5	44		
70.		456	-366				-7	48		
68		407	-316				-23	61		
66		293	-202				-91	120		
65		246	-155				-140	178		
63		160	-72				-225	251		
61		96	-6				-268	301		
60		110	-16				-323	336		
58		190	-100				-312	348		
56		335	-244				-321	360		
54		362	-277				-394	428		
52		299	-208				-332	360		
50		331	-237				-292	326		
48		328	-237				-265	301		
46		309	-218				-215	256		
44		344	-253				-180	221		
42		383	-293				-108	134		
40		334	-245				-127	166		
38		347	-255				-156	200		
36		376	-285				-131	163		
34		369	-278				-150	188		
32		345	-255				-175	205		
30		369	-281				-50	82		
28		406	-317				-59	94		
26		332	-244				-55	90		
24		376	-285				-11	23		
23		485	-394				+67	-50		
21		630	-541				216	-192		
19		477	-392				100	-73		
18		391	-304				52	-21		
16		202	-115				-66	+83		
14		106	-20				-129	152		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE AUGUST 19 1986 CALCULATED BY _____ ON _____

READ BY R. BARRY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		89	-1				-150	176		
11		121	-36				-180	202		
9		145	-56				-131	150		
8		152	-65				-111	146		
6		154	-67				-222	243		
4		175	-90				-345	352		
2		192	-108				-356	372		

GEI FIELD SHEET
INCLINOMETER DATA

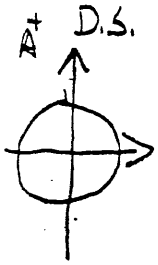
BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE Sept 22, 1986 CALCULATED BY _____ ON _____

READ BY Jeff Toothaker / Steve Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to sand?

Stick up above surface casing = .61'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+ 454	- 363				- 380	+ 403		
90.		+ 444	- 351				- 390	+ 405		
88		+ 598	- 508				- 423	+ 446		
86		+ 694	- 603				- 400	+ 439		
84		+ 708	- 617				- 348	+ 375		
82		+ 658	- 567				- 256	+ 276		
80		+ 713	- 620				- 203	+ 237		
78		+ 694	- 602				- 187	+ 216		
76		+ 670	- 580				- 110	+ 136		
75		+ 640	- 546				- 78	+ 100		
73		+ 562	- 473				- 16	+ 31		
71.		+ 478	- 386				- 0000	+ 41		
70.		+ 457	- 366				- 17	+ 45		
68		+ 410	- 318				- 22	+ 60		
66		+ 294	- 204				- 93	+ 119		
65		+ 248	- 158				- 142	+ 175		
63		+ 161	- 74				- 212	+ 239		
61		+ 95	- 5				- 270	+ 299		
60		+ 106	- 14				- 327	+ 353		
58		+ 189	- 98				- 310	+ 350		
56		+ 333	- 241				- 327	+ 362		
54		+ 364	- 277				- 401	+ 425		
52		+ 299	- 209				- 332	+ 361		
50		+ 331	- 239				- 290	+ 334		
48		+ 327	- 240				- 253	+ 296		
46		+ 308	- 220				- 211	+ 259		
44		+ 343	- 251				- 176	+ 225		
42		+ 385	- 293				- 102	+ 140		
40		+ 335	- 245				- 125	+ 156		
38		+ 345	- 255				- 164	+ 196		
36		+ 377	- 286				- 133	+ 164		
34		+ 369	- 279				- 152	+ 186		
32		+ 345	- 254				- 176	+ 203		
30		+ 365	- 277				- 58	+ 91		
28		+ 405	- 316				- 54	+ 93		
26		+ 332	- 242				- 50	+ 93		
24		+ 373	- 280				- 12	+ 50		
23		+ 482	- 389				+ 69	- 34		
21		+ 628	- 538				+ 216	- 188		
19		+ 479	- 390				+ 93	- 70		
18		+ 392	- 303				+ 33	- 14		
16		+ 201	- 116				- 58	+ 88		
14		+ 105	- 17				- 122	+ 158		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE Sept. 22, 1986 CALCULATED BY _____ ON _____

READ BY Jeff Toothaker / Steve Schmit

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
13		+ 88	+ 1				− 148	+ 177		
11		+ 120	− 33				− 171	+ 199		
9		+ 142	− 53				− 144	+ 158		
8		+ 151	− 61				− 131	+ 145		
6		+ 156	− 69				− 227	+ 247		
4		+ 174	− 89				− 338	+ 351		
2		+ 185	− 95				− 347	+ 370		

GEI FIELD SHEET
INCLINOMETER DATA

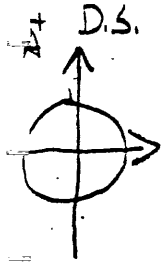
BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-7-86 CALCULATED BY _____ ON _____

READ BY PGC / SJS CHECKED BY _____ ON _____

INSTRUMENT NO. _____



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+451	-365				-376	+393		
90.		+439	-353				-383	+409		
88		+593	-509				-418	+446		
86		+690	-603				-407	+438		
84		+705	-618				-350	+373		
82		+655	-569				-255	+272		
80		+709	-622				-203	+224		
78		+691	-604				-186	+201		
76		+667	-582				-109	+136		
75		+638	-549				-78	+88		
73		+560	-475				-14	+43		
71.		+475	-390				-3	+33		
70.		+452	-369				-12	+46		
68		+408	-320				-25	+52		
66		+293	-208				-95	+121		
65		+246	-160				-146	+177		
63		+160	-77				-219	+239		
61		+94	-10				-260	+299		
60		+103	-18				-316	+353		
58		+186	-102				-324	+349		
56		+330	-245				-319	+359		
54		+360	-280				-393	+428		
52		+296	-208				-331	+369		
50		+329	-241				-290	+334		
48		+326	-242				-255	+295		
46		+306	-221				-217	+257		
44		+340	-254				-180	+217		
42		+382	-295				-113	+134		
40		+333	-248				-122	+153		
38		+343	-258				-162	+187		
36		+373	-289				-130	+165		
34		+367	-284				-149	+176		
32		+343	-257				-183	+204		
30		+365	-280				-52	+79		
28		+403	-317				-58	+86		
26		+331	-246				-60	+85		
24		+371	-285				-11	+34		
23		+477	-393				+67	-65		
21		+626	-540				+211	-196		
19		+470	-391				+87	-68		
18		+390	-306				+47	-17		
16		+201	-118				-58	+88		
14		+105	-22				-128	+152		

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GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-7-86 CALCULATED BY _____ ON _____

READ BY PGC / SJS CHECKED BY _____ ON _____

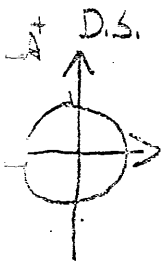
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		+86	-2				-146	+178		
11		+118	-37				-172	+192		
9		+142	-54				-142	+166		
8		+149	-61				-140	+148		
6		+159	-74				-229	+251		
4		+180	-97				-342	+358		
2		+176	-97				-342	+356		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 7 MAY 1987 CALCULATED BY _____ ON _____
READ BY PGC / CFC
INSTRUMENT NO. SN25222 CHECKED BY _____ ON _____



DEPTH	ORIG. DIFF.	AZ=Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+455	-356				-381	+401		
90.		+442	-344				-387	+403		
88		+599	-500				-424	+445		
86		+690	-591				-415	+430		
84		+716	-614				-355	+391		
82		+656	-564				-254	+275		
80		+718	-622				-203	+238		
78		+696	-600				-189	+206		
76		+672	-576				-110	+146		
75		+642	-545				-75	+92		
73		+567	-473				-15	+46		
71.		+480	-383				-4	+42		
70.		+455	-360				-13	+54		
68		+415	-319				-24	+58		
66		+300	-204				-87	+121		
65		+252	-157				-151	+178		
63		+168	-76				-220	+255		
61		+99	-5				-256	+298		
60		+107	-12				-325	+337		
58		+186	-93				-321	+358		
56		+339	-243				-339	+358		
54		+370	-278				-411	+432		
52		+299	-204				-331	+371		
50		+330	-234				-302	+333		
48		+331	-237				-273	+302		
46		+310	-215				-226	+259		
44		+341	-247				-180	+223		
42		+385	-289				-110	+132		
40		+334	-243				-127	+156		
38		+344	-254				-168	+186		
36		+373	-283				-138	+168		
34		+371	-279				-155	+186		
32		+346	-251				-182	+207		
30		+366	-273				-48	+95		
28		+406	-313				-53	+79		
26		+334	-241				-63	+88		
24		+371	-278				-10	+49		
23		+479	-385				+68	-31		
21		+629	-537				+204	-187		
19		+479	-387				+99	-70		
18		+394	-302				+30	-17		
16		+203	-113				-57	+85		
14		+106	-16				-124	+157		

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GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-41 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 7 MAY 1987 CALCULATED BY _____ ON _____

READ BY PGC / CRC

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		+86	+5				-148	+176		
11		+116	-27				-175	+195		
9		+143	-49				-143	+171		
8		+150	-57				-132	+155		
6		+168	-76				-223	+255		
4		+185	-94				-337	+365		
2		+192	-101				-357	+391		

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE 6/23/87 CALCULATED BY _____ ON _____

READ BY CRC/PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

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DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-1	NEW DIFF.	CHANGE
92		+456	-376				-340	+429		
90.		+432	-365				-348	+425		
88		+590	-521				-385	+463		
86		+680	-611				-372	+456		
84		+705	-633				-323	+395		
82		+647	-581				-227	+302		
80		+710	-638				-175	+250		
78		+684	-616				-161	+229		
76		+662	-595				-81	+161		
75		+632	-564				-46	+112		
73		+555	-493				+3	+54		
71.		+467	-399				+21	+57		
70.		+448	-377				+10	+64		
68		+404	-336				-7	+82		
66		+288	-221				-77	+133		
65		+241	-174				-120	+194		
63		+156	-91				-200	+275		
61		+88	-21				-237	+316		
60		+99	-27				-312	+361		
58		+176	-111				-302	+363		
56		+328	-260				-313	+375		
54		+358	-295				-378	+439		
52		+288	-218				-304	+375		
50		+318	-250				-278	+333		
48		+320	-253				-233	+309		
46		+300	-234				-199	+266		
44		+332	-263				-167	+242		
42		+374	-300				-89	+157		
40		+323	-257				-101	+166		
38		+335	-267				-138	+215		
36		+364	-299				-106	+183		
34		+360	-297				-123	+207		
32		+333	-266				-157	+216		
30		+356	-286				-35	+102		
28		+384	-316				-43	+113		
26		+327	-260				-41	+113		
24		+376	-309				+29	+43		
23		+475	-408				+113	-36		
21		+605	-537				+229	-157		
19		+472	-403				+134	-51		
18		+384	-319				+63	-3		
16		+194	-125				-40	+111		
14		+88	-23				-107	+181		

NEW LOGS
HAMM WRENCH-½"
MAKE A LIST OF EQUIPMENT

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-21 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam

DATE _____ CALCULATED BY _____ ON _____

READ BY _____

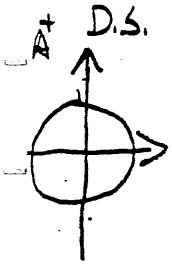
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		+66	0				-136	+197		
11		+96	-32				-138	+208		
9		+132	-66				-123	+196		
8		+146	-82				-121	+192		
6		+179	-114				-214	+299		
4		+186	-121				-321	+406		
2		+160	-96				-368	+425		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE October 6, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____



Depth to sand?

Pick up above surface using, = .61

DEPTH	ORIG. DIFF.	AZ=Downstream A+	AZ=Downstream A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	AZ=Spillway B-	NEW DIFF.	CHANGE
92		+412	-408				-395	+377		
90.		+400	-397				-391	+380		
88		+558	-555				-428	+414		
86		+646	-642				-418	+412		
84		+672	-668				-365	+355		
82		+614	-613				-258	+252		
80		+675	-670				-212	+207		
78		+653	-649				-193	+189		
76		+627	-625				-115	+112		
75		+598	-593				-85	+74		
73		+523	-522				-27	+25		
71.		+434	-430				-16	+19		
70.		+409	-408				-30	+32		
68		+372	-369				-37	+43		
66		+255	-253				-102	+89		
65		+210	-205				-165	+174		
63		+128	-124				-239	+228		
61		+57	-54				-287	+259		
60		+64	-59				-349	+326		
58		+145	-143				-343	+319		
56		+297	-294				-349	+321		
54		+330	-330				-418	+394		
52		+256	-251				-345	+334		
50		+293	-287				-309	+308		
48		+290	-288				-279	+268		
46		+269	-265				-238	+234		
44		+298	-293				-207	+199		
42		+341	-336				-141	+123		
40		+296	-292				-133	+128		
38		+304	-301				-178	+163		
36		+336	-333				-155	+146		
34		+333	-328				-175	+162		
32		+305	-299				-193	+186		
30		+323	-322				-86	+73		
28		+354	-350				-87	+72		
26		+299	-295				-79	+62		
24		+348	-342				-2	-11		
23		+442	-439				+92	-84		
21		+571	-567				+176	-196		
19		+441	-439				+91	-94		
18		+357	-354				+26	-26		
16		+165	-162				-74	+66		
14		+58	-56				-139	+137		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE October 9, 1987 CALCULATED BY _____ ON _____

READ BY BS/PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		+35	-30				-166	+159		
11		+62	-59				-167	+172		
9		+105	-100				-162	+160		
8		+124	-122				-164	+168		
6		+162	-160				-271	+245		
4		+178	-178				-337	+327		
2		+207	-223				-279	+295		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-4 PAGE 1 OF 2

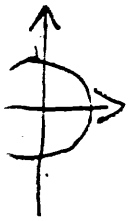
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-19-1987 CALCULATED BY _____ ON _____

READ BY W. STUREK

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

D.S.



DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+405	-405				-400	+369		
90.		+401	-398				-397	+378		
88		+566	-565				-427	+407		
86		+646	-642				-420	+403		
84		+664	-660				-363	+342		
82		+614	-614				-257	+249		
80		+672	-668				-219	+204		
78		+650	-646				-200	+184		
76		+623	-622				-124	+104		
75		+590	-588				-81	+72		
73		+520	-518				-40	+17		
71.		+428	-426				-22	+13		
70.		+407	-408				-35	+26		
68		+367	-365				-43	+37		
66		+251	-248				-109	+86		
65		+206	-201				-166	+174		
63		+123	-120				-240	+224		
61		+54	-54				-287	+253		
60		+65	-61				-339	+307		
58		+148	-148				-341	+312		
56		+297	-298				-352	+318		
54		+327	-328				-414	+382		
52		+252	-249				-349	+328		
50		+290	-284				-321	+300		
48		+291	-287				-286	+258		
46		+268	-265				-247	+224		
44		+298	-295				-214	+190		
42		+337	-335				-144	+120		
40		+294	-291				-134	+112		
38		+302	-299				-176	+157		
36		+334	-332				-158	+143		
34		+330	-328				-175	+152		
32		+304	-299				-197	+181		
30		+322	-323				-87	+70		
28		+351	-348				-91	+66		
26		+297	-295				-80	+54		
24		+349	-343				-18	-4		
23		+442	-438				+48	-95		
21		+569	-565				+170	-199		
19		+439	-437				+85	-111		
18		+353	-351				+21	-26		
16		+165	-161				-79	+52		
14		+69	-58				-147	+129		

GEI FIELD SHEET
INCLINOMETER DATA

BORING ST-85-41 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-19-1987 CALCULATED BY _____ ON _____

READ BY W.S.

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		+34	-31				-165	+157		
11		+59	-56				-171	+164		
9		+103	-100				-175	+152		
8		+124	-122				-177	+145		
6		+161	-160				-271	+243		
4		+178	-177				-343	+319		
2		+160	-164				-347	+311		

PVC coupling 0.62"

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

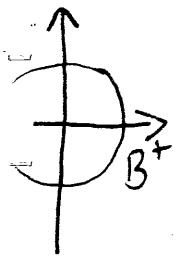
PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE January 24, 1986 CALCULATED BY _____ ON _____

READ BY S. Saturnino / R. Barry CHECKED BY _____ ON _____

INSTRUMENT NO. _____

D.S.



	DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
	134		+100	+13				+142	-135		
	132		+123	-12				+195	-186		
	130		+134	-68				+339	-326		
	128		+295	-186				+459	-443		
	126		+411	-291				+498	-475		
	124		+528	-421				+574	-550		
	122		+616	-500				+524	-523		
	120		+687	-569				+419	-410		
	118		+777	-660				+314	-312		
(12)	116		+816	-706				+285	-260		
*	115		+743	-624				+167	-167		
*	113		+554	-439				+59	-24		
	112		+480	-367				+39	-19		
	110		+339	-225				+39	-23		
(16)	108		+204	-91				+103	-89		
*	107		+128	-18				+163	-132		
*	105		+45	+67				+291	-272		
*	103		+113	+1				+436	-414		
	102		+222	-104				+487	-472		
	100		+385	-272				+610	-603		
	98		+487	-369				+686	-686		
	96		+571	-452				+714	-690		
	94		+719	-602				+719	-684		
	92		+818	-701				+602	-589		
	90		+839	-720				+543	-542		
	88		+816	-700				+449	-445		
	86		+778	-658				+410	-397		
	84		+742	-628				+359	-334		
	82		+722	-603				+300	-276		
	80		+663	-547				+230	-199		
	78		+601	-485				+167	-143		
	76		+521	-403				+110	-85		
(3)	74		+455	-341				+80	-46		
*	73		+464	-345				+104	-67		
*	71		+400	-283				+76	-51		
	70		+366	-250				+12	-44		
	68		+326	-209				+97	-92		
(3)	66		+305	-189				+113	-88		
*	65		+309	-193				+112	-91		
*	63		+353	-239				+190	-171		
*	61		+400	-288				+299	-269		
	60		+412	-301				+319	-308		
	58		+435	-322				+344	-324		

* READINGS DUE TO COUPLINGS

GEI FIELD SHEET
INCLINOMETER DATA

BORING 5I-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE January 24, 1986 CALCULATED BY _____ ON _____
READ BY S. Stevens/D. Berry
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

	DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13	56		+460	-349				+340	-321		
	54		+505	-383				+303	-302		
*	53		+471	-356				+277	-256		
*	51		+377	-265				+244	-215		
	50		+365	-246				+264	-242		
	48		+330	-219				+277	-270		
	46		+307	-193				+279	-258		
	44		+296	-178				+249	-220		
	42		+340	-228				+202	-187		
	40		+395	-282				+123	-110		
	38		+430	-313				+62	-62		
	36		+381	-264				+53	-35		
	34		+316	-202				-4	+2		
	32		+319	-207				-100	+135		
	30		+305	-188				-246	+273		
	28		+250	-133				-145	+202		
	26		+178	-67				-119	+136		
58	24		+122	-5				-25	+44		
*	23		+77	+31				+5	+4		
*	21		+34	+81				+135	-106		
*	19		+2	+113				+118	-97		
	18		+14	+130				+93	-80		
	16		-71	+185				+100	-77		
63	14		-90	+208				+85	-62		
*	13		-93	+208				+69	-56		
*	11		-91	+206				+85	-66		
*	9		-45	+155				+232	-227		
	8		+21	+90				+305	-301		
	6		+220	-106				+482	-462		
	4		+413	-297				+606	-580		
	2		+463	-357				+626	-605		

Depth to Sand
from protective casing
.54', .56', .45'

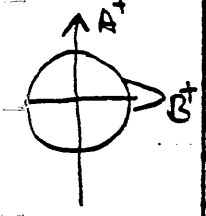
Stickup of bell reducer
~~Depth~~ to PVC casing
.77 ft.

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE March 31, 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. 1 CHECKED BY _____ ON _____

D.S.



Depth to Sand? .67'

stick up above surface casing = 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+95	0				+141	-138		
132		+109	-13				+174	-180		
130		+167	-71				+328	-339		
128		+280	-188				+455	-456		
126		+400	-300				+484	-476		
124		+536	-440				+563	-563		
122		+607	-506				+527	-511		
120		+676	-577				+423	-417		
118		+767	-669				+313	-311		
116		+807	-713				+285	-272		
115		+741	-642				+180	-177		
113.		+549	-454				+42	-31		
112.		+480	-384				+23	-19		
110		+333	-239				+28	-21		
108		+200	-105				+86	-81		
107		+121	-30				+147	-137		
105		+33	+62				+280	-263		
103		+100	-7				+424	-415		
102		+206	-106				+481	-475		
100		+376	-283				+612	-599		
98		+472	-378				+686	-676		
96		+559	-460				+712	-697		
94		+709	-611				+709	-694		
92		+815	-716				+611	-605		
90		+832	-733				+558	-544		
88		+809	-709				+464	-452		
86		+772	-672				+411	-404		
84		+735	-643				+353	-336		
82		+720	-617				+282	-271		
80		+656	-556				+228	-207		
78		+596	-497				+164	-150		
76		+517	-416				+102	-85		
74		+447	-350				+67	-60		
73		+455	-353				+86	-74		
71		+400	-298				+70	-37		
70		+368	-268				+71	-41		
68		+320	-219				+109	-84		
66		+294	-194				+124	-103		
65		+299	-199				+115	-102		
63		+351	-254				+187	-162		
61		+395	-293				+300	-277		
60		+404	-304				+323	-311		
58		+433	-331				+343	-322		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE MARCH 31, 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=DOWN STREAM A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
56		+458	-358				+332	-316		
54		+490	-386				+317	-295		
53		+464	-362				+282	-258		
51		+376	-280				+243	-222		
50		+363	-260				+257	-243		
48		+338	-236				+283	-269		
46		+317	-217				+275	-259		
44		+296	-193				+241	-222		
42		+342	-242				+199	-174		
40		+393	-294				+116	-108		
38		+431	-329				+83	-60		
36		+382	-280				+52	-38		
34		+318	-215				+17	-1		
32		+312	-212				-103	+132		
30		+297	-189				-246	+268		
28		+244	-137				-190	+211		
26		+172	-71				-112	+126		
24		+118	-9				-25	+47		
23		+76	+27				+10	+10		
21		+26	+77				+137	-109		
19		-2	+107				+126	-96		
18		-18	+124				+95	-73		
16		-76	+179				+90	-76		
14		-99	+204				+99	-71		
13		-103	+207				+71	-55		
11		-101	+204				+89	-57		
9		-48	+147				+237	-215		
8		+23	+76				+309	-285		
6		+209	+107	-101			+470	-455		
4		+385	-289				+581	-568		
2		+508	-409				+645	-633		

Ground Water Encountered At 128'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-S PAGE 1 OF 2

PROJECT NO. 86934
PROJECT NAME Ball MT. Dam
DATE MAY 13, 1986
CALCULATED BY ON
READ BY SJS / PAD
INSTRUMENT NO. #
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= DOWNSTREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
134		69	-4				151	-135		
132		85	-16				178	-157		
130		143	-72				330	-310		
128		258	-190				463	-438		
126		378	-300				485	-451		
124		522	-448				579	-559		
122		590	-514				531	-509		
120		656	-580				433	-414		
118		752	-675				314	-306		
116		795	-720				294	-265		
115		736	-656				184	-177		
113		540	-464				39	-21		
112		473	-396				30	-19		
110		325	-250				36	-12		
108		192	-118				90	-73		
107		112	-39				151	-145		
105		18	56				281	-254		
103		82	-14				423	-405		
102		185	-108				478	-464		
100		361	-290				612	-600		
98		457	-384				686	-677		
96		542	-466				702	-688		
94		688	-613				722	-688		
92		803	-724				625	-600		
90		823	-742				546	-541		
88		797	-717				464	-440		
86		758	-682				414	-402		
84		723	-650				353	-327		
82		706	-626				299	-271		
80		644	-565				217	-218		
78		582	-504				160	-149		
76		504	-81				100	-427		
74		432	-360				85	-55		
73		440	-363				109	-67		
71		388	-306				68	-38		
70		354	-277				57	-53		
68		308	-228				105	-73		
66		280	-202				124	-103		
65		287	-208				109	-91		
63		336	-261				186	-155		
61		380	-302				295	-271		
60		390	-313				328	-307		
58		418	-340				344	-323		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934
PROJECT NAME Ball Mountain Dam
DATE MAY 13, 1986
CALCULATED BY ON
READ BY SJS/PAD
INSTRUMENT NO.
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Spillway A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway B+	B-	NEW DIFF.	CHANGE
56		443	-367				335	-303		
54		475	-394				319	-292		
53		450	-369				286	-261		
51		364	-289				248	-221		
50		350	-270				263	-230		
48		326	-247				292	-261		
46		305	-225				281	-249		
44		281	-203				239	-214		
42		329	-252				196	-173		
40		379	-304				125	-103		
38		418	-337				84	-61		
36		369	-290				54	-31		
34		305	-226				12	-2		
32		300	-221				-102	+133		
30		286	-202				-254	+278		
28		233	-148				-197	220		
26		161	-83				-118	124		
24		107	-20				-36	57		
23		63	+15				4	9		
21		14	66				134	-117		
19		-18	95				128	-100		
18		-32	111				91	-72		
16		-90	167				96	-62		
14		-113	194				88	-67		
13		-118	195				76	-51		
11		-114	192				86	-65		
9		-57	139				238	-215		
8		12	69				311	-292		
6		204	-126				470	-440		
4		378	-300				587	-556		
2		450	-361				647	-641		

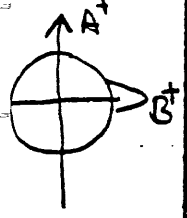
Water at 127 ft.

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE June 17, 1986 CALCULATED BY _____ ON _____
READ BY SJS / MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



Depth to Sand?

Tick up above surface casing = 0.71"

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		081	+ 1				150	-131		
132		094	- 12				183	-162		
130		153	- 70				334	-302		
128		268	-191				470	-438		
126		388	-299				490	-452		
124		528	-444				579	-549		
122		595	-508				526	-507		
120		662	-578				432	-408		
118		760	-672				318	-297		
116		796	-713				295	-253		
115		733	-647				193	-169		
113.	12	542	-458				045	- 15		
112.		471	-386				030	+ 3		
110		324	-241				039	- 9		
108		192	-108				093	- 71		
107		111	- 30				152	-121		
105		020	+ 61				278	-258		
103		093	- 11				430	-407		
102		198	-112				483	-460		
100		371	-289				616	-586		
98		467	-382				690	-655		
96		550	-462				713	-679		
94		698	-615				716	-689		
92		808	-720				628	-594		
90		825	-735				561	-535		
88		797	-711				459	-431		
86		762	-676				422	-386		
84		725	-646				348	-324		
82		710	-620				282	-269		
80		647	-559				236	-208		
78		585	-499				169	-144		
76		506	-420				103	- 75		
74		437	-354				087	-60		
73		443	-358				093	-68		
71		390	-300				075	-46		
70		358	-272				081	-50		
68		311	-224				107	-68		
66		284	-198				133	-89		
65		292	-205				116	-84		
63		343	-260				196	-146		
61		385	-300				305	-277		
60		397	-310				338	-313		
58		424	-338				353	-308		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam

DATE June 17, 1986 CALCULATED BY _____ ON _____

READ BY SJS/MTM

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

22:29:76
20:47:92

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		449	-365				344	-310		
54		483	-392				323	-280		
53		453	-365				285	-251		
51		369	-284				250	-215		
50		355	-266				265	-240		
48		332	-244				295	-256		
46		308	-223				278	-249		
44		287	-200				245	-205		
42		334	-249				201	-175		
40		383	-299				123	-94		
38		421	-334				089	-54		
36		372	-286				062	-26		
34		310	-223				029	+12		
32		303	-221				-100	+141		
30		285	-198				-247	+284		
28		234	-148				-180	+220		
26		165	-83				-103	+126		
24		107	-18				-026	+55		
23		061	+21				010	+10		
21		015	+71				151	-120		
19		-009	+97				127	-89		
18		-025	+113				100	-67		
16		-085	+170				104	-61		
14		-108	+195				100	-64		
13		-112	+198				080	-47		
11		-109	+194				095	-65		
9		-054	+139				251	-228		
8		015	+68				316	-308		
6		205	-122				475	-450		
4		377	-295				583	-552		
2		438	-344				665	-649		

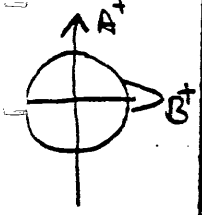
7 @ 125'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY _____ ON _____
READ BY Steve Roich, Steve Sarandis
INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

D.S.



Depth to Sand?

tick up above surface casing = 0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		97	14				144	-135		
132		109	3				180	-155		
130		165	-53				328	-313		
128		282	-172				468	-442		
126		397	-280				493	-465		
124		543	-429				582	-555		
122		611	-493				516	-516		
120		676	-561				428	-413		
118		774	-656				328	-309		
116		812	-699				272	-272		
115		751	-637				205	-185		
113.		559	-445				36	-26		
112.		491	-376				30	-15		
110		342	-230				37	-9		
108		210	-98				86	-71		
107		128	-18				152	-136		
105		36	73				276	-251		
103		106	5				434	-409		
102		210	-92				483	-463		
100		385	-271				620	-596		
98		480	-365				693	-676		
96		567	-444				708	-701		
94		714	-595				721	-691		
92		829	-704				625	-599		
90		845	-721				552	-542		
88		818	-695				469	-444		
86		780	-660				425	-390		
84		745	-631				358	-338		
82		727	-605				286	-275		
80		664	-545				231	-210		
78		603	-485				183	-153		
76		523	-407				103	-78		
74		452	-341				89	-58		
73		459	-343				106	-78		
71		403	-285				78	-44		
70		371	-258				68	-49		
68		326	-210				101	-81		
66		298	-184				121	-93		
65		305	-189				115	-90		
63		357	-244				187	-162		
61		401	-283				300	-278		
60		410	-294				328	-311		
58		439	-320				342	-314		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam
DATE July 13, 1986 CALCULATED BY _____ ON _____
READ BY SSB, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		466	-348				344	-309		
54		498	-376				320	-287		
53		470	-352				284	-262		
51		382	-270				246	-224		
50		369	-251				256	-244		
48		347	-230				290	-269		
46		324	-208				281	-256		
44		301	-185				239	-222		
42		346	-232				200	-175		
40		395	-283				123	-101		
38		433	-318				90	-60		
36		384	-270				58	-32		
34		320	-207				22	-1		
32		313	-206				-105	128		
30		291	-181				-255	274		
28		242	-133				-190	210		
26		175	-71				-110	130		
24		118	-3				-34	49		
23		70	38				0	10		
21		25	86				147	-133		
19		2	108				131	-100		
18		-14	126				93	-71		
16		-74	183				104	-73		
14		-98	209				103	-76		
13		-103	211				80	-56		
11		-106	207				94	-66		
9		-40	152				242	-231		
8		28	84				316	-305		
6		222	-106				473	-451		
4		389	-272				576	-563		
2		482	-361				677	-653		

Encountered Water at 124 ft

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

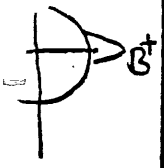
PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE AUGUST 20 1986 CALCULATED BY _____ ON _____

READ BY R. BARRY

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.
A+



pth to
ind?
0.72'

k up
ve
ace
casing
0.71"

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		86	1				140	-152		
132		98	-11				171	-163		
130		154	-66				323	-313		
128		271	-186				463	-448		
126		385	-294				480	-468		
124		530	-441				571	-565		
122		602	-508				533	-524		
120		666	-572				434	-420		
118		763	-669				319	-315		
116		802	-712				293	-273		
115		745	-650				187	-190		
113.		551	-459				50	-30		
112.		484	-390				34	-26		
110		334	-243				39	-18		
108		202	-112				89	-70		
107		119	-31				152	-134		
105		24	66				273	-266		
103		91	-7				422	-412		
102		195	-103				473	-474		
100		372	-284				609	-594		
98		466	-378				683	-669		
96		551	-459				703	-689		
94		696	-608				704	-703		
92		812	-717				626	-612		
90		830	-734				559	-544		
88		804	-707				463	-444		
86		767	-672				414	-401		
84		734	-644				353	-341		
82		716	-618				272	-279		
80		653	-557				226	-217		
78		593	-498				173	-160		
76		514	-419				103	-94		
74		443	-352				81	-62		
73		450	-355				85	-88		
71		394	-297				57	-54		
70		362	-269				63	-51		
68		316	-222				98	-84		
66		237	-194				122	-103		
65		295	-202				110	-105		
63		347	-255				181	-161		
61		389	-295				295	-279		
60		399	-306				325	-313		
58		428	-333				333	-321		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE AUGUST 20, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
56		455	-360				338	-317		
54		486	-390				317	-301		
53		461	-364				275	-269		
51		371	-280				237	-226		
50		357	-263				245	-243		
48		337	-242				285	-270		
46		313	-220				274	-261		
44		290	-196				230	-225		
42		336	-243				184	-182		
40		387	-293				121	-107		
38		424	-327				85	-68		
36		377	-283				55	-37		
34		314	-220				23	-12		
32		310	-219				-107	129		
30		290	-195				-256	274		
28		242	-145				-191	207		
26		176	-86				-113	128		
24		114	-17				-40	49		
23		65	28				1	10		
21		19	76				145	-139		
19		-4	97				115	-100		
18		-19	114				82	-76		
16		-80	172				89	-75		
14		-104	199				95	-81		
13		-108	202				75	-58		
11		-104	196				79	-74		
9		-51	141				240	-228		
8		19	71				306	-299		
6		209	-118				464	-449		
4		376	-283				575	-561		
2		459	-356				685	-675		

WATER ENCOUNTERED @ 123'

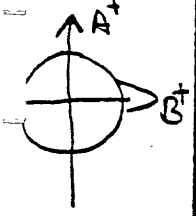
123

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE Sept 22, 1986 CALCULATED BY _____ ON _____
READ BY Jeff Toothaker / Steve Sorandis
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



Depth to Sand?

ick up above rface casing = 0.71"

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+ 84	+ 2				+150	− 130		
132		+ 95	− 9				+ 176	− 148		
130		+ 150	− 64				+ 328	− 299		
128		+ 268	− 184				+ 466	− 437		
126		+ 381	− 294				+ 484	− 450		
124		+ 529	− 443				+ 576	− 548		
122		+ 599	− 509				+ 532	− 508		
120		+ 660	− 573				+ 432	− 409		
118		+ 759	− 670				+ 326	− 303		
116		+ 798	− 716				+ 295	− 248		
115		+ 742	− 652				+ 194	− 172		
113.		+ 545	− 459				+ 50	− 19		
112.		+ 478	− 391				+ 37	− 13		
110		+ 330	− 244				+ 43	− 11		
108		+ 198	− 113				+ 90	− 63		
107		+ 116	− 33				+ 155	− 126		
105		+ 19	+ 67				+ 279	− 255		
103		+ 87	− 8				+ 427	− 407		
102		+ 190	− 106				+ 478	− 453		
100		+ 368	− 286				+ 611	− 592		
98		+ 460	− 379				+ 683	− 659		
96		+ 546	− 461				+ 700	− 681		
94		+ 692	− 609				+ 710	− 689		
92		+ 808	− 721				+ 633	− 598		
90		+ 827	− 737				+ 555	− 535		
88		+ 799	− 710				+ 468	− 445		
86		+ 763	− 676				+ 425	− 396		
84		+ 729	− 647				+ 356	− 338		
82		+ 711	− 623				+ 289	− 262		
80		+ 648	− 560				+ 226	− 202		
78		+ 586	− 501				+ 170	− 145		
76		+ 508	− 420				+ 89	− 85		
74		+ 440	− 354				+ 77	− 59		
73		+ 444	− 357				+ 87	− 78		
71		+ 389	− 300				+ 76	− 37		
70		+ 357	− 271				+ 70	− 37		
68		+ 313	− 226				+ 105	− 74		
66		+ 283	− 197				+ 125	− 90		
65		+ 292	− 204				+ 126	− 99		
63		+ 342	− 257				+ 187	− 146		
61		+ 384	− 300				+ 303	− 277		
60		+ 396	− 309				+ 337	− 318		
58		+ 425	− 338				+ 343	− 308		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam

DATE Sept 22, 1986 CALCULATED BY _____ ON _____

READ BY J. Toothaker Steve Sarandis

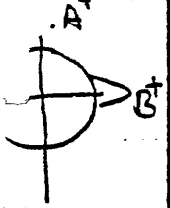
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		+451	−364				+342	−309		
54		+484	−394				+324	−282		
53		+456	−368				+282	−255		
51		+367	−285				+241	−222		
50		+354	−267				+258	−227		
48		+333	−246				+289	−261		
46		+309	−225				+279	−245		
44		+285	−199				+234	−214		
42		+335	−246				+198	−170		
40		+382	−300				+116	−93		
38		+419	−334				+79	−55		
36		+373	−288				+60	−30		
34		+310	−226				+24	+4		
32		+306	−223				−101	+139		
30		+286	−198				−247	+278		
28		+237	−149				−180	+218		
26		+173	−88				−105	+137		
24		+110	−19				−28	+50		
23		+61	+23				+5	+5		
21		+14	+71				+147	−134		
19		−7	+92				+123	−88		
18		−22	+109				+96	−69		
16		−84	+168				+97	−73		
14		−108	+194				+97	−71		
13		−112	+196				+80	−48		
11		−109	+193				+89	−63		
9		−51	+135				+249	−216		
8		+19	+66				+318	−299		
6		+208	−124				+473	−444		
4		+371	−288				+579	−551		
2		+455	−372				+689	−654		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 11/8/86 CALCULATED BY _____ ON _____
READ BY PGC/SJS
INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+87	-5				+156	-143		
132		+95	-13				+170	-161		
130		+150	-67				+319	-311		
128		+265	-187				+459	-462		
126		+381	-298				+478	-467		
124		+527	-441				+566	-569		
122		+596	-512				+520	-525		
120		+657	-575				+426	-431		
118		+756	-674				+305	-318		
116		+795	-717				+288	-268		
115		+739	-656				+199	-190		
113.		+545	-462				+39	-39		
112.		+478	-394				+32	-24		
110		+328	-246				+32	-19		
108		+197	-117				+74	-73		
107		+114	-34				+145	-133		
105		+17	+63				+269	-261		
103		+85	-9				+411	-408		
102		+191	-108				+468	-465		
100		+370	-289				+605	-596		
98		+461	-381				+678	-677		
96		+547	-463				+692	-696		
94		+690	-610				+708	-705		
92		+807	-725				+612	-617		
90		+826	-742				+546	-546		
88		+797	-714				+453	-457		
86		+760	-679				+408	-407		
84		+728	-651				+341	-344		
82		+709	-625				+280	-269		
80		+645	-563				+222	-219		
78		+585	-503				+159	-161		
76		+507	-426				+86	-91		
74		+436	-359				+74	-60		
73		+442	-361				+80	-82		
71		+389	-304				+63	-56		
70		+355	-274				+56	-50		
68		+313	-231				+90	-81		
66		+281	-200				+114	-109		
65		+291	-207				+107	-102		
63		+340	-260				+173	-156		
61		+382	-302				+291	-278		
60		+392	-313				+325	-312		
58		+422	-340				+334	-325		

D.S.

pth to
and?

ck up
bove
face
casing
- 0.71"

I_{10} = [illegible]
BT_f = 6.0V

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11/8/86 CALCULATED BY _____ ON _____

READ BY POC / SJS

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		+449	-366				+333	-321		
54		+479	-396				+311	-301		
53		+456	-371				+271	-273		
51		+367	-289				+242	-228		
50		+352	-270				+251	-245		
48		+333	-251				+279	-269		
46		+309	-228				+275	-259		
44		+285	-204				+233	-226		
42		+331	-250				+191	-184		
40		+382	-302				+108	-109		
38		+421	-338				+70	-72		
36		+376	-293				+47	-42		
34		+311	-229				+10	-16		
32		+307	-226				-113	+130		
30		+283	-200				-267	+272		
28		+235	-153				-202	+203		
26		+170	-93				-122	+123		
24		+109	-24				-46	+52		
23		+59	+20				-5	+6		
21		+14	+67				+130	-137		
19		-8	+89				+111	-105		
18		-23	+107				+81	-81		
16		-84	+165				+88	-81		
14		-108	+191				+92	-79		
13		-113	+194				+69	-71		
11		-109	+191				+78	-76		
9		-53	+133				+234	-224		
8		+18	+63				+307	-301		
6		+207	-124				+468	-448		
4		+369	-287				+568	-567		
2		+462	-370				+661	-661		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam
DATE 8 MAY 87 CALCULATED BY _____ ON _____
READ BY PGC/CRC
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
56		+448	-361				+347	-313		
54		+479	-390				+324	-294		
53		+459	-372				+282	-268		
51		+373	-285				+253	-224		
50		+369	-280				+258	-242		
48		+375	-289				+294	-270		
46		+342	-255				+290	-265		
44		+300	-211				+247	-224		
42		+341	-253				+202	-183		
40		+389	-304				+113	-103		
38		+435	-349				+82	-83		
36		+395	-309				+55	-40		
34		+318	-233				+13	-12		
32		+313	-228				-116	+128		
30		+284	-196				-256	+273		
28		+238	-151				-185	+195		
26		+176	-95				-111	+124		
24		+110	-20				-31	+53		
23		+61	+24				+8	+12		
21		+15	+72				+148	-133		
19		-7	+92				+118	-101		
18		-22	+109				+81	-72		
16		-85	+169				+92	-76		
14		-108	+196				+91	-81		
13		-115	+199				+73	-64		
11		-108	+197				+86	-68		
9		-52	+137				+252	-227		
8		+15	+68				+323	-297		
6		+209	-125				+475	-449		
4		+383	-299				+575	-550		
2		+442	-355				+653	-623		

* water in c/ @ 2.5 ft. mark from Bottom of Probe!

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 8 MAY 1987 CALCULATED BY _____ ON _____

READ BY PGC / CRC

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+85	-3				+159	-154		
132		+96	-9				+170	-179		
130		+147	-61				+330	-311		
128		+262	-179				+462	-456		
126		+334	-337				+478	-468		
124		+570	-394				+577	-574		
122		+597	-509				+547	-530		
120		+655	-569				+443	-422		
118		+756	-669				+336	-319		
116		+844	-672				+296	-265		
115		+752	-662				+216	-194		
113.		+553	-464				+58	-31		
112.		+490	-400				+47	-24		
110		+337	-249				+41	-18		
108		+207	-121				+85	-62		
107		+121	-33				+152	-141		
105		+14	+67				+279	-259		
103		+83	-3				+419	-406		
102		+185	-101				+474	-476		
100		+367	-287				+616	-604		
98		+461	-378				+690	-667		
96		+545	-459				+706	-693		
94		+682	-599				+717	-710		
92		+813	-725				+637	-620		
90		+830	-741				+560	-550		
88		+801	-711				+466	-455		
86		+762	-677				+432	-412		
84		+736	-650				+358	-341		
82		+712	-625				+294	-269		
80		+651	-563				+239	-213		
78		+588	-501				+177	-157		
76		+512	-427				+91	-93		
74		+397	-398				+75	-58		
73		+444	-358				+94	-76		
71		+391	-302				+77	-50		
70		+356	-272				+60	-56		
68		+317	-230				+101	-89		
66		+281	-197				+121	-113		
65		+289	-204				+118	-97		
63		+345	-259				+183	-160		
61		+384	-297				+302	-274		
60		+393	-308				+339	-324		
58		+424	-334				+350	-316		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 6/23/87 CALCULATED BY _____ ON _____
READ BY CRC/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+69	-24				+183	-116		
132		+80	-25				+194	-123		
130		+128	-69				+348	-269		
128		+242	-184				+490	-407		
126		+312	-344				+499	-433		
124		+556	-406				+610	-507		
122		+580	-519				+569	-495		
120		+637	-578				+458	-392		
118		+738	-674				+361	-289		
116		+827	-682				+324	-240		
115		+737	-679				+244	-163		
113.		+540	-477				+76	-3		
112.		+476	-415				+55	0		
110		+321	-262				+53	+11		
108		+194	-137				+104	-30		
107		+110	-49				+172	-95		
105		-3	+56				+298	-228		
103		+71	-7				+445	-368		
102		+172	-106				+498	-417		
100		+356	-291				+635	-568		
98		+445	-383				+708	-641		
96		+531	-465				+730	-663		
94		+664	-606				+734	-671		
92		+798	-733				+642	-585		
90		+816	-751				+582	-518		
88		+788	-724				+484	-422		
86		+747	-687				+433	-379		
84		+724	-661				+376	-316		
82		+702	-635				+308	-238		
80		+639	-574				+261	-180		
78		+578	-512				+203	-129		
76		+501	-439				+133	-59		
74		+384	-409				+89	-38		
73		+431	-370				+110	-50		
71		+380	-312				+98	-16		
70		+347	-281				+85	-28		
68		+305	-240				+121	-43		
66		+270	-207				+143	-74		
65		+280	-213				+135	-60		
63		+347	-268				+210	-123		
61		+392	-304				+324	-242		
60		+382	-318				+350	-290		
58		+408	-344				+368	-285		

GCI FIELD SHEET
INCLINOMETER DATA

BORING 51-80-3 PAGE 2 OF 2

PROJECT NO. 86934 - PROJECT NAME Bell Mountain Dam

DATE _____ CALCULATED BY _____ ON _____

READ BY _____

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

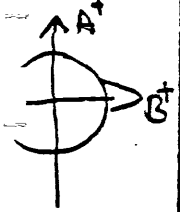
DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = SOUTHWAY B+	B−	NEW DIFF.	CHANGE
56		+436	-369				+364	-292		
54		+468	-402				+347	-276		
53		+448	-361				+304	-235		
51		+362	-296				+277	-196		
50		+355	-292				+280	-210		
48		+365	-299				+316	-234		
46		+330	-268				+311	-227		
44		+286	-222				+261	-200		
42		+329	-262				+222	-150		
40		+377	-309				+150	-71		
38		+424	-358				+117	-43		
36		+381	-316				+76	-15		
34		+307	-242				+43	+23		
32		+301	-235				-78	+164		
30		+274	-202				-235	+310		
28		+227	-160				-162	+223		
26		+165	-105				-91	+165		
24		+95	-31				-8	+84		
23		+44	+16				+29	+42		
21		+2	+64				+171	-116		
19		-20	+85				+139	-70		
18		-36	+102				+113	-45		
16		-98	+160				+116	-48		
14		-123	+188				+124	-50		
13		-129	+192				+90	-32		
11		-123	+188				+114	-48		
9		-63	+127				+272	-200		
8		+3	+56				+345	-272		
6		+195	-133				+497	-428		
4		+366	-304				+601	-521		
2		+465	-393				+636	-565		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE Oct. 5, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

D.S.



epth to
and?

ick up
bove
face
casing
= 0.71'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
134		+46	−47				+126	−144		
132		+52	−50				+153	−156		
130		+104	−103				+295	−315		
128		+220	−222				+438	−452		
126		+332	−347				+472	−476		
124		+487	−441				+567	−574		
122		+550	−548				+524	−530		
120		+609	−606				+420	−435		
118		+710	−708				+318	−335		
116		+749	−750				+285	−282		
115		+696	−694				+179	−199		
113.		+502	−501				+26	−48		
112.		+437	−434				+16	−39		
110		+286	−286				+23	−31		
108		+157	−158				+65	−75		
107		+70	−70				+123	−140		
105		−28	+31				+257	−267		
103		+43	−45				+397	−413		
102		+147	−143				+451	−469		
100		+324	−326				+587	−598		
98		+414	−415				+662	−670		
96		+497	−495				+692	−695		
94		+642	−638				+699	−705		
92		+761	−758				+614	−634		
90		+780	−773				+543	−559		
88		+749	−743				+452	−471		
86		+715	−712				+408	−421		
84		+686	−685				+346	−357		
82		+663	−660				+283	−291		
80		+602	−597				+219	−234		
78		+540	−536				+163	−175		
76		+465	−462				+92	−108		
74		+393	−393				+63	−77		
73		+399	−396				+70	−93		
71		+344	−341				+62	−71		
70		+313	−310				+53	−73		
68		+270	−268				+80	−100		
66		+237	−234				+99	−124		
65		+246	−241				+93	−115		
63		+300	−297				+159	−173		
61		+339	−335				+278	−287		
60		+346	−346				+312	−321		
58		+375	−371				+320	−342		

FIELD SHEET

INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam

DATE Oct. 5, 1987 CALCULATED BY _____ ON _____

READ BY BS/PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		+400	−397				+316	−340		
54		+432	−428				+300	−321		
53		+414	−405				+274	−284		
51		+325	−325				+236	−234		
50		+322	−319				+243	−259		
48		+329	−328				+274	−277		
46		+296	−294				+269	−274		
44		+253	−250				+228	−239		
42		+295	−291				+186	−193		
40		+343	−342				+108	−115		
38		+391	−388				+80	−86		
36		+350	−347				+50	−59		
34		+275	−273				+11	−24		
32		+272	−269				−126	+113		
30		+237	−237				−265	+257		
28		+196	−193				−200	+190		
26		+136	−137				−128	+115		
24		+67	−60				−54	+42		
23		+14	−13				−14	−5		
21		−25	+31				+132	−138		
19		−48	+52				+102	−113		
18		−64	+69				+68	−83		
16		−127	+129				+72	−85		
14		−152	+156				+80	−87		
13		−158	+159				+55	−62		
11		−152	+156				+71	−74		
9		−93	+95				+222	−239		
8		−24	+25				+310	−310		
6		+167	−163				+440	−457		
4		+330	−330				+541	−554		
2		+411	−412				+603	−605		

the cable was wet at 15'

GEI FIELD SHEET
INCLINOMETER DATA

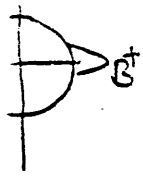
BORING SI-85-5 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE 11-19-87 CALCULATED BY _____ ON _____

READ BY W. STUREK

INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____



DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
134		+49	-47				+120	-148		
132		+53	-49				+153	-165		
130		+106	-104				+297	-323		
128		+222	-226				+442	-460		
126		+337	-338				+474	-484		
124		+482	-480				+561	-576		
122		+550	-548				+514	-532		
120		+610	-607				+413	-438		
118		+712	-708				+312	-336		
116		+750	-747				+286	-279		
115		+694	-687				+185	-195		
113.		+501	-499				+27	-48		
112.		+434	-430				+17	-36		
110		+285	-284				+14	-34		
108		+155	-155				+60	-84		
107		+69	-67				+118	-152		
105		-26	+31				+251	-272		
103		+45	-47				+393	-417		
102		+151	-147				+447	-472		
100		+326	-326				+583	-605		
98		+413	-415				+657	-678		
96		+496	-495				+684	-697		
94		+644	-642				+690	-709		
92		+762	-759				+609	-629		
90		+780	-773				+537	-562		
88		+748	-743				+443	-472		
86		+714	-711				+405	-423		
84		+686	-687				+337	-358		
82		+663	-658				+273	-291		
80		+602	-598				+214	-240		
78		+540	-536				+157	-180		
76		+466	-461				+88	-109		
74		+394	-391				+59	-85		
73		+399	-395				+66	-99		
71		+345	-338				+56	-72		
70		+313	-310				+45	-71		
68		+271	-267				+75	-98		
66		+238	-235				+93	-125		
65		+247	-242				+87	-119		
63		+300	-299				+150	-175		
61		+338	-337				+268	-292		
60		+347	-347				+304	-324		
58		+376	-371				+313	-346		

D. S.

pth to
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ve
nce
casing
0.71"

PVC
oupling
casing)
0.71'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-5 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Bell Mountain Dam
DATE 11-19-87 CALCULATED BY _____ ON _____
READ BY W. STUREK
INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

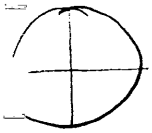
DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B−	NEW DIFF.	CHANGE
56		+400	-398				+309	-342		
54		+433	-429				+294	-319		
53		+414	-405				+263	-289		
51		+326	-327				+228	-238		
50		+323	-321				+236	-251		
48		+331	-330				+267	-282		
46		+298	-295				+261	-280		
44		+255	-252				+222	-242		
42		+296	-293				+178	-196		
40		+345	-345				+107	-121		
38		+398	-390				+76	-92		
36		+353	-349				+48	-62		
34		+277	-274				+10	-33		
32		+274	-269				-129	+101		
30		+239	-236				-270	+256		
28		+197	-193				-207	+185		
26		+137	-140				-137	+109		
24		+69	-61				-63	+39		
23		+17	-16				-19	-8		
21		-25	+28				+127	-142		
19		-48	+50				+96	-116		
18		-63	+68				+70	-90		
16		-126	+127				+66	-90		
14		-150	+154				+70	-90		
13		-157	+159				+53	-69		
11		-150	+156				+65	-80		
9		-90	+92				+218	-245		
8		-22	+22				+290	-316		
6		+166	-163				+435	-464		
4		+333	-333				+534	-553		
2		+404	-402				+605	-634		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE January 24, 1986 CALCULATED BY _____ ON _____
READ BY S. Saranidis
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DOWNSTREAM
A+



	DEPTH	ORIG. DIFF.	AZ=DOWNSTREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=SPILLWAY B+	B-	NEW DIFF.	CHANGE
	92'		+150	-55				+352	-325		
	90'		-121	+217				+446	-416		
	88		-373	+468				+315	-313		
	86		-486	+587				+128	-93		
	84		-468	+564				-62	+70		
	82		-388	+489				-162	+180		
	80		-367	+467				-149	+173		
	78		-307	+408				-97	+129		
	76		-211	+312				+41	-24		
	74		-160	+258				+154	-144		
	72		-149	+246				+156	-140		
	70		-125	+224				+184	-158		
	68		-76	+173				+210	-180		
16	66		-1	+97				+225	-193		
*	65		+30	+65				+240	-220		
*	63		+51	+36				+295	-244		
*	61		+55	+42				+263	-230		
	60		+38	+59				+249	-221		
	58		-19	+115				+250	-219		
21	56		-68	+167				+221	-184		
*	55		-107	+203				+162	-145		
*	53		-226	+323				+86	-60		
*	51		-302	+400				+55	-20		
	50		-277	+376				+39	-23		
	48		-208	+307				+36	-2		
	46		-148	+247				0	+37		
	44		-167	+265				+63	-33		
	42		-125	+222				+187	-143		
	40		-108	+204				+177	-155		
	38		-67	+167				+194	-166		
	36		-22	+122				+238	-215		
	34		+3	+92				+278	-255		
	32		-18	+117				+274	-231		
	30		-124	+223				+279	-244		
	28		-176	+275				+30	-268		
	26		-132	+228				+366	-328		
	24		-45	+140				+432	-388		
38	22		-12	+109				+365	-340		
*	21		-42	+140				+349	-321		
*	19		-69	+170				+200	-190		
	18		-97	+196				+193	-173		
	16		-204	+304				+240	-226		
72	14		-342	+440				+278	-254		

* READINGS DUE TO COUPLINGS

GEI FIELD SHEET
INCLINOMETER DATA

BORING GI-85-6 PAGE 2 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE January 24, 1986 CALCULATED BY _____ ON _____
READ BY S. Sarandis, R. Barry CHECKED BY _____ ON _____
INSTRUMENT NO. _____

DEPTH	ORIG. DIFF.	AZ = DOWN STREAM A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = SPILLWAY B+	B-	NEW DIFF.	CHANGE
* 13		-347	+445				+227	-217		
* 11		-333	+431				+94	-57		
* 9		-338	+437				-30	+44		
8		-318	+418				-19	+42		
6		-216	+314				+50	-9		
4		-181	+279				+90	-78		
2		-173	-315				+41	+2		

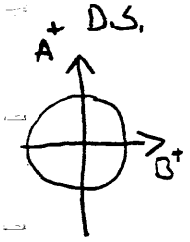
DEPTH FROM PROTECTIVE
CASING TO GROUND
.77', .81', .76'

STICK UP OVER bell reducer PVC casing
.77'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE MARCH 31, 1986 CALCULATED BY _____ ON _____
READ BY SJS, MAM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand? 0.87'

Tick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+125	-45				+348	-334		
90.		-101	+196				+457	-449		
88		-352	+448				+336	-317		
86		-476	+578				+116	-92		
84		-451	+546				-39	+73		
82		-375	+479				-144	+158		
80		-383	+484				-144	+168		
78		-326	+430				-102	+112		
76		-214	+319				+73	-62		
74		-146	+246				+190	-170		
72		-99	+199				+161	-144		
70.		-64	+164				+143	-124		
68.		-15	+114				+154	-138		
66		+23	+72				+192	-166		
65		+34	+62				+214	-201		
63		+29	+63				+309	-272		
61		+18	+76				+310	-282		
60		+9	+87				+293	-272		
58		-17	+117				+264	-237		
56		-44	+152				+213	-190		
55		-87	+187				+171	-146		
53		-205	+311				+101	-65		
51		-287	+389				+63	-37		
50		-263	+370				+42	-34		
48		-195	+302				+26	-20		
46		-136	+244				-5	+26		
44		-148	+256				+50	-38		
42		-111	+217				+183	-159		
40		-92	+199				+187	-163		
38		-54	+162				+194	-178		
36		-8	+118				+242	-224		
34		+20	+84				+285	-270		
32		+6	+103				+260	-231		
30		-101	+215				+291	-262		
28		-160	+271				+304	-283		
26		-115	+227				+362	-351		
24		-24	+136				+429	-413		
22		+12	+100				+349	-347		
21		-18	+131				+340	-313		
19		-50	+163				+220	-197		
18		-76	+190				+186	-179		
16		-181	+297				+252	-247		
14		-319	+432				+290	-275		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 85764 PROJECT NAME Ball Mountain Dam
DATE March 31, 1986 CALCULATED BY _____ ON _____
READ BY MAM, SJS
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-330	+447				+255	-235		
11		-316	+427				+84	-65		
9		-311	+424				-33	+48		
8		-299	+413				-17	+25		
6		-198	+311				+73	-56		
4		-159	+275				+103	-72		
2		-182	+284				+26	+12		
	Dry	Hole								
	0.87	ft to	Top of	Sand						

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-6 PAGE 1 OF 2

PROJECT NO. 85769
DATE May 13, 1986
READ BY SJS/PAD
INSTRUMENT NO.

PROJECT NAME Ball Mountain Dam
CALCULATED BY ON
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ=Downstream A+	A−	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B−	NEW DIFF.	CHANGE
92		125	-60				352	-329		
90		-107	175				462	-444		
88		-364	433				335	-322		
86		-490	562				105	-95		
84		-460	530				-55	75		
82		-384	461				-131	158		
80		-396	470				-146	167		
78		-336	417				-105	111		
76		-227	303				72	-52		
74		-159	233				195	-161		
72		-102	181				170	-138		
70		-74	145				136	-116		
68		-24	92				150	-138		
66		21	50				177	-156		
65		30	37				204	-198		
63		15	52				301	-265		
61		-1	76				309	-283		
60		-9	89				284	-276		
58		-38	113				245	-232		
56		-59	141				213	-196		
55		-98	174				157	-150		
53		-218	298				99	-67		
51		-300	376				63	-37		
50		-277	358				52	-38		
48		-210	288				43	-8		
46		-151	230				2	36		
44		-165	244				52	-23		
42		-127	204				177	-144		
40		-108	183				182	-161		
38		-69	149				192	-175		
36		-24	102				242	-208		
34		5	69				288	-256		
32		-10	89				266	-240		
30		-118	197				286	-250		
28		-178	256				310	-268		
26		-132	211				369	-330		
24		-42	119				437	-392		
22		-8	85				361	-327		
21		-40	115				336	-328		
19		-67	149				222	-184		
18		-94	173				194	-199		
16		-203	282				247	-217		
14		-340	419				296	-260		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI 85-6 PAGE 2 OF 2

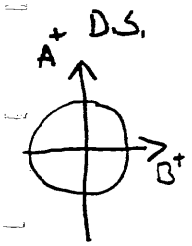
PROJECT NO. 85769
PROJECT NAME Ball Mountain Dam
DATE May 13, 1986
CALCULATED BY ON
READ BY SJS / PAD
INSTRUMENT NO.
CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ= Downstream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ= Spillway		NEW DIFF.	CHANGE
		A+	A-				A+	B-		
13		-353	413				244	-216		
11		-334	412				73	-53		
9		-329	409				31	+49		
8		-317	398				-31	26		
6		-221	301				73	-58		
4		-174	252				75	-59		
2		-182	278				62	-31		
			Dry Hole							

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 85769 PROJECT NAME Ball Mountain Dam
DATE June 16, 1986 CALCULATED BY _____ ON _____
READ BY SJS/MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Stick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		137	-57				359	-318		
90.		-099	+175				461	-432		
88		-355	+436				346	-324		
86		-478	+564				124	-83		
84		-446	+527				-056	+76		
82		-374	+463				-137	+159		
80		-388	+472				-150	+181		
78		-328	+417				-101	+116		
76		-217	+303				078	-53		
74		-152	+237				192	-164		
72		-093	+174				160	-140		
70.		-063	+140				140	-112		
68.		-014	+88				143	-126		
66		028	+48				177	-148		
65		037	+37				202	-178		
63		019	+55				290	-266		
61		000	+81				306	-282		
60		-010	+93				300	-279		
58		-036	+118				264	-241		
56		-057	+143				201	-193		
55		-092	+177				157	-137		
53		-216	+301				089	-69		
51		-288	+379				061	-31		
50		-272	+360				041	-37		
48		-205	+288				034	-2		
46		-146	+233				-003	+43		
44		-160	+247				049	-14		
42		-121	+204				171	-147		
40		-101	+186				179	-158		
38		-064	+152				184	-171		
36		-020	+104				234	-214		
34		010	+69				277	-258		
32		-007	+89				257	-236		
30		-115	+199				278	-247		
28		-172	+254				316	-277		
26		-126	+210				375	-337		
24		-038	+119				439	-402		
22		-005	+84				368	-325		
21		-036	+120				346	-323		
19		-062	+149				214	-191		
18		-085	+171				207	-176		
16		-197	+282				256	-223		
14		-335	+421				286	-278		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 85769 - PROJECT NAME Ball Mountain Dam
DATE June 16, 1986 CALCULATED BY _____ ON _____
READ BY SJS/MTM
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

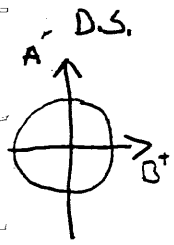
14:07.06
3! 19:81

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-349	+431				237	-225		
11		-326	+412				081	-48		
9		-325	+411				-022	+52		
8		-311	+397				-010	+32		
6		-208	+294				088	-56		
4		-179	+264				089	-50		
2		-211	+282				069	-56		
				DRY	HOLE					

GEI FIELD SHEET
INCLINOMETER- DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY _____ ON _____
READ BY SSS, SR CHECKED BY _____ ON _____
INSTRUMENT NO. _____



Depth to Sand?

Stick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		152	-48				345	-327		
90.		-91	185				455	-444		
88		-341	445				358	-326		
86		-469	575				128	-83		
84		-437	542				-36	79		
82		-362	473				-132	158		
80		-377	486				-146	167		
78		-320	432				-105	121		
76		-210	318				71	-60		
74		-144	251				192	-163		
72		-77	191				169	-135		
70.		-43	152				142	-108		
68.		4	100				141	-120		
66		45	59				178	-134		
65		52	50				202	-172		
63		29	68				309	-269		
61		5	97				319	-297		
60		-6	111				297	-285		
58		-30	135				267	-238		
56		-48	156				208	-194		
55		-83	189				155	-149		
53		-202	313				101	-70		
51		-285	392				51	-26		
50		-263	372				49	-21		
48		-196	304				31	-5		
46		-137	246				-12	39		
44		-149	260				42	-11		
42		-111	218				172	-154		
40		-91	201				189	-158		
38		-54	167				199	-168		
36		-10	122				243	-218		
34		22	84				292	-264		
32		5	104				262	-221		
30		-102	214				283	-262		
28		-159	270				305	-267		
26		-114	226				363	-341		
24		-25	134				429	-400		
22		6	102				372	-335		
21		-27	132				340	-328		
19		-50	163				219	-192		
18		-73	183				194	-177		
16		-184	295				253	-225		
14		-323	433				291	-263		

GEI FIELD SHEET
INCLINOMETER- DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 - PROJECT NAME Ball Mountain Dam
DATE July 15, 1986 CALCULATED BY _____ ON _____
READ BY SJS, SR
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

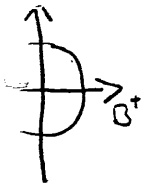
DEPTH	ORIG. DIFF.	AZ=Down Stream		NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway		NEW DIFF.	CHANGE
		A+	A-				B+	B-		
13		-334	445				249	-225		
11		-314	425				87	-52		
9		-311	422				-14	39		
8		-299	412				1	32		
6		-198	309				95	-62		
4		-165	276				95	-57		
2		-166	291				46	-10		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE AUGUST 20 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



,th to
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2.96'

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ove
face
using
.71'

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		141	-56				348	-337		
90.		-94	178				463	-439		
88		-351	437				337	-333		
86		-477	5066				112	-90		
84		-448	533				-44	78		
82		-372	463				-140	155		
80		-337	475				-157	173		
78		-328	420				-107	127		
76		-219	308				+70	-57		
74		-159	241				188	-168		
72		-88	174				166	-145		
70.		-54	136				130	-109		
68.		-2	84				127	-120		
66		38	45				165	-145		
65		44	36				187	-190		
63		18	61				303	-287		
61		-7	93				325	-302		
60		-20	106				303	-296		
58		-43	128				264	-248		
56		-55	147				216	-201		
55		-92	180				162	-152		
53		-214	303				93	-72		
51		-297	383				59	-32		
50		-275	364				62	-38		
48		-207	294				45	-12		
46		-148	236				5	22		
44		-162	250				52	-25		
42		-121	207				174	-152		
40		-101	190				184	-158		
38		-64	156				201	-169		
36		-19	111				242	-214		
34		12	73				285	-257		
32		-3	91				257	-243		
30		-113	200				292	-254		
28		-171	256				311	-279		
26		-124	211				374	-341		
24		-35	119				436	-402		
22		-2	89				357	-341		
21		-37	120				335	-329		
19		-60	151				222	-192		
18		-81	169				204	-186		
16		-193	282				255	-227		
14		-333	420				297	-267		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 PROJECT NAME Ball Mountain Dam
DATE AUGUST 20, 1986 CALCULATED BY _____ ON _____
READ BY R. BARRY
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-345	434				230	-226		
11		-323	410				86	-51		
9		-322	409				-15	55		
8		-311	397				-7	30		
6		-209	295				84	-61		
4		-176	261				90	-62		
2		-189	288				62	-29		

GEI FIELD SHEET
INCLINOMETER DATA

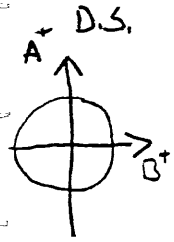
BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam

DATE Sept 23, 1986 CALCULATED BY _____ ON _____

READ BY J. Toothaker / Steve Sarandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____



Depth to Sand?

Tick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+ 136	- 56				+ 348	- 325		
90.		- 97	+ 184				+ 454	- 437		
88		- 354	+ 442				+ 361	- 320		
86		- 478	+ 563				+ 112	- 81		
84		- 447	+ 526				- 49	+ 85		
82		- 375	+ 460				- 129	+ 160		
80		- 390	+ 473				- 144	+ 174		
78		- 331	+ 414				- 101	+ 121		
76		- 222	+ 301				+ 75	- 66		
74		- 160	+ 240				+ 173	- 175		
72		- 87	+ 170				+ 160	- 128		
70.		- 52	+ 132				+ 124	- 95		
68.		- 3	+ 83				+ 119	- 80		
66		+ 36	+ 44				+ 141	- 119		
65		+ 42	+ 35				+ 175	- 160		
63		+ 16	+ 57				+ 302	- 268		
61		- 10	+ 89				+ 340	- 317		
60		- 20	+ 101				+ 339	- 315		
58		- 43	+ 123				+ 293	- 265		
56		- 54	+ 140				+ 225	- 198		
55		- 93	+ 174				+ 154	- 143		
53		- 214	+ 298				+ 95	- 68		
51		- 300	+ 379				+ 69	- 47		
50		- 277	+ 359				+ 64	- 36		
48		- 210	+ 291				+ 41	- 16		
46		- 151	+ 232				+ 3	+ 27		
44		- 164	+ 245				+ 48	- 17		
42		- 123	+ 203				+ 173	- 150		
40		- 105	+ 186				+ 194	- 150		
38		- 67	+ 151				+ 201	- 165		
36		- 23	+ 106				+ 246	- 217		
34		+ 10	+ 68				+ 283	- 260		
32		- 4	+ 86				+ 258	- 246		
30		- 116	+ 197				+ 287	- 247		
28		- 173	+ 252				+ 311	- 280		
26		- 128	+ 208				+ 368	- 336		
24		- 39	+ 116				+ 430	- 392		
22		- 5	+ 86				+ 366	- 332		
21		- 36	+ 116				+ 345	- 319		
19		- 64	+ 146				+ 223	- 196		
18		- 89	+ 167				+ 201	- 180		
16		- 200	+ 278				+ 255	- 229		
14		- 337	+ 416				+ 299	- 265		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 PROJECT NAME Ball Mountain Dam

DATE Sept 23, 1986 CALCULATED BY _____ ON _____

READ BY J. Tosthaker / Steve Grandis

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

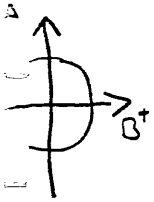
DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
13		-351	+429				+237	-222		
11		-329	+410				+91	-49		
9		-325	+407				-24	+58		
8		-314	+397				-2	+33		
6		-214	+295				+79	-51		
4		-176	+256				+90	-48		
2		-174	+271				+57	-24		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 11-7-86 CALCULATED BY _____ ON _____
READ BY PGC/JC
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



pth to
and?

ck up
bove
rface
using
-.71'

B_{10} = 6.2
BT_F = 6.0

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
92		+143	-57				+348	-334		
90.		-89	+177				+449	-437		
88		-346	+435				+362	-332		
86		-474	+563				+122	-84		
84		-446	+531				-44	+79		
82		-369	+463				-128	+159		
80		-386	+477				-142	+178		
78		-328	+421				-104	+135		
76		-218	+307				+72	-46		
74		-158	+243				+189	-160		
72		-84	+173				+171	-143		
70.		-50	+137				+125	-93		
68.		-1	+84				+102	-68		
66		+39	+45				+127	-98		
65		+46	+36				+164	-147		
63		+20	+60				+310	-277		
61		-3	+90				+366	-336		
60		-16	+103				+350	-333		
58		-38	+126				+311	-279		
56		-49	+142				+232	-204		
55		-86	+174				+166	-152		
53		-207	+297				+100	-72		
51		-292	+380				+67	-36		
50		-270	+361				+65	-46		
48		-204	+293				+37	-9		
46		-143	+232				-1	+28		
44		-156	+246				+44	-18		
42		-119	+206				+177	-141		
40		-101	+186				+194	-157		
38		-67	+153				+195	-164		
36		-20	+107				+240	-206		
34		+14	+69				+285	-259		
32		-1	+88				+261	-238		
30		-114	+200				+290	-255		
28		-171	+256				+306	-277		
26		-125	+212				+373	-334		
24		-37	+121				+435	-396		
22		-02	+89				+372	-324		
21		-35	+118				+331	-318		
19		-61	+151				+224	-190		
18		-86	+173				+202	-171		
16		-198	+281				+256	-221		
14		-331	+419				+296	-265		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 PROJECT NAME Ball Mountain Dam
DATE 11-7-86 CALCULATED BY _____ ON _____
READ BY PGC / SJG
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

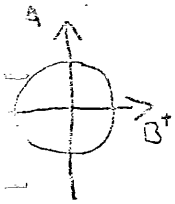
DEPTH	ORIG. DIFF.	AZ=Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-347	+432				+231	-215		
11		-327	+413				+91	-44		
9		-322	+410				-27	+55		
8		-311	+400				-9	+9		
6		-209	+297				+82	-63		
4		-166	+253				+83	-56		
2		-167	+261				+69	-34		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 8 MAY 1987 CALCULATED BY _____ ON _____
READ BY PGC / CRC
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

D.S.



Depth to Sand?

Pick up above surface casing = .71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+157	-63				+310	-358		
90.		-70	+164				+420	-468		
88		-333	+430				+329	-375		
86		-467	+564				+89	-121		
84		-439	+535				-81	+44		
82		-356	+455				-164	+137		
80		-381	+480				-187	+144		
78		-323	+428				-148	+93		
76		-212	+311				+33	-82		
74		-158	+212				+155	-195		
72		-68	+225				+136	-165		
70.		-53	+148				+59	-80		
68.		-6	+98				+7	-20		
66		+38	+55				+19	-53		
65		+46	+45				+68	-106		
63		+28	+62				+285	-324		
61		+9	+88				+420	-470		
60		-1	+101				+412	-470		
58		-25	+124				+341	-393		
56		-31	+136				+212	-260		
55		-72	+171				+131	-190		
53		-196	+295				+67	-105		
51		-285	+382				+39	-69		
50'		-264	+365				+25	-74		
48		-200	+299				+2	-53		
46		-137	+237				-30	-9		
44		-146	+247				+15	-58		
42		-113	+212				+140	-187		
40		-94	+191				+156	-199		
38		-61	+160				+161	-204		
36		-15	+115				+204	-257		
34		+22	+72				+253	-296		
32		+6	+93				+229	-288		
30		-103	+200				+256	-285		
28		-165	+260				+276	-313		
26		-122	+220				+342	-393		
24		-24	+121				+403	-432		
22		+6	+75				+343	-363		
21		-21	+116				+308	-362		
19		-59	+159				+193	-225		
18		-86	+186				+168	-206		
16		-200	+299				+213	-251		
14		-318	+419				+270	-315		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 PROJECT NAME Ball Mountain Dam

DATE 8 MAY 1987 CALCULATED BY _____ ON _____

READ BY PGC

INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-324	+428				+235	-281		
11		-298	+396				+78	-99		
9		-299	+401				-68	+28		
8		-303	+404				-43	-10		
6		-222	+323				+54	-88		
4		-164	+265				+61	-99		
2		-180	+273				-8	-31		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 6/23/87 CALCULATED BY ON
READ BY CRC/PGC
INSTRUMENT NO. F-79-1 CHECKED BY ON

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+139	-72				+372	-303		
90.		-87	+155				+486	-417		
88		-352	+420				+384	-321		
86		-485	+551				+150	-72		
84		-454	+520				-36	+96		
82		-369	+445				-107	+190		
80		-397	+466				-126	+192		
78		-339	+412				-80	+156		
76		-229	+298				+96	-18		
74		-172	+238				+211	-132		
72		-86	+174				+185	-115		
70.		-67	+134				+95	-3		
68.		-17	+82				+18	+80		
66		+27	+36				+40	+36		
65		+36	+26				+107	-34		
63		+17	+45				+352	-271		
61		0	+72				+523	-441		
60		-16	+87				+519	-448		
58		-45	+113				+442	-374		
56		-55	+127				+296	-216		
55		-89	+159				+202	-132		
53		-210	+283				+123	-52		
51		-298	+373				+92	-9		
50		-282	+354				+72	-23		
48		-217	+287				+55	+18		
46		-155	+224				+23	+49		
44		-165	+235				+61	0		
42		-129	+198				+197	-117		
40		-111	+181				+207	-135		
38		-75	+150				+222	-139		
36		-29	+101				+262	-187		
34		+7	+59				+311	-230		
32		-7	+81				+282	-218		
30		-120	+191				+306	-230		
28		-180	+249				+333	-265		
26		-134	+204				+393	-328		
24		-45	+110				+456	-377		
22		+12	+80				+383	-316		
21		-40	+107				+351	-304		
19		-77	+148				+235	-171		
18		-104	+171				+223	-155		
16		-217	+286				+271	-197		
14		-336	+404				+317	-263		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86937 - PROJECT NAME Ball Mountain Dam

DATE _____ CALCULATED BY _____ ON _____

READ BY _____

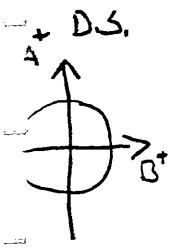
INSTRUMENT NO. _____ CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ = Downstream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
13		-345	+412				+279	-215		
11		-316	+387				+134	-44		
9		-312	+390				-14	+92		
8		-313	+387				-1	+45		
6		-231	+303				+112	-46		
4		-181	+255				+107	-44		
2		-203	+280				+29	+45		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE Oct. 6, 1987 CALCULATED BY _____ ON _____
READ BY BS/PGC
INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____



DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+105	-102				+342	-343		
90.		-126	+126				+437	-454		
88		-389	+393				+340	-359		
86		-508	+514				+97	-125		
84		-473	+477				-66	+39		
82		-400	+404				-147	+146		
80		-428	+435				-165	+160		
78		-368	+375				-132	+122		
76		-257	+260				+50	-59		
74		-201	+208				+161	-170		
72		-127	+133				+132	-140		
70.		-89	+90				+3	-20		
68.		-32	+27				-73	+61		
66		+15	-20				-38	+21		
65		+20	-28				+30	-58		
63		-13	+11				+315	-330		
61		-51	+55				+489	-500		
60		-65	+76				+498	-512		
58		-92	+101				+417	-436		
56		-94	+101				+255	-274		
55		-125	+128				+162	-179		
53		-243	+252				+77	-89		
51		-330	+336				+50	-55		
50		-312	+319				+32	-56		
48		-247	+253				+17	-27		
46		-183	+189				-15	+5		
44		-195	+200				+19	-30		
42		-159	+165				+140	-156		
40		-144	+145				+167	-182		
38		-108	+116				+173	-193		
36		-60	+67				+211	-227		
34		-25	+26				+262	-275		
32		-35	+42				+239	-253		
30		-150	+157				+258	-280		
28		-210	+212				+278	-301		
26		-167	+171				+345	-359		
24		-79	+80				+394	-415		
22		-50	+28				+347	-354		
21		-67	+71				+313	-332		
19		-108	+115				+197	-230		
18		-134	+138				+183	-205		
16		-249	+253				+218	-231		
14		-365	+370				+270	-280		

epth to and?

ick up bove urface casing = .71'

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86931 PROJECT NAME Ball Mountain Dam

DATE Oct. 6, 1987 CALCULATED BY _____ ON _____

READ BY BS/PGC

INSTRUMENT NO. F-79-1 CHECKED BY _____ ON _____

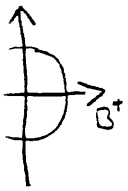
DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-370	+376				+242	-260		
11		-347	+352				+74	-104		
9		-345	+351				-58	+45		
8		-346	+352				-49	+29		
6		-260	+267				+63	-85		
4		-185	+183				+110	-126		
2		-170	+150				+65	-94		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 1 OF 2

PROJECT NO. 86934 - PROJECT NAME Ball Mountain Dam
DATE 11-19-1987 CALCULATED BY _____ ON _____
READ BY W. STUREK
INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

D.S.



th to
d?

k up
one
face
using
.71'

PVC
COUPLING
(to casing)
0.71'

DEPTH	ORIG. DIFF.	AZ = Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ = Spillway B+	B-	NEW DIFF.	CHANGE
92		+98	-96				+316	-357		
90.		-139	+138				+433	-456		
88		-398	+400				+328	-369		
86		-506	+512				+87	-115		
84		-468	+472				-78	+46		
82		-402	+408				-149	+141		
80		-430	+433				-177	+159		
78		-365	+369				-116	+104		
76		-253	+257				+49	-71		
74		-201	+204				+159	-182		
72		-124	+127				+123	-135		
70.		-80	+82				-10	-17		
68.		-26	+27				-72	+53		
66		+12	-8				-28	+0		
65		+14	-13				+44	-76		
63		-22	+23				+327	-345		
61		-54	+46				+477	-490		
60		-65	+63				+483	-490		
58		-87	+83				+411	-431		
56		-92	+97				+251	-267		
55		-128	+129				+163	-191		
53		-250	+253				+74	-97		
51		-333	+333				+47	-60		
50		-311	+313				+46	-46		
48		-246	+249				+15	-30		
46		-183	+187				+15	-1		
44		-196	+200				+20	-42		
42		-157	+162				+133	-158		
40		-139	+143				+167	-187		
38		-109	+115				+169	-197		
36		-59	+64				+212	-228		
34		-25	+24				+256	-277		
32		-38	+43				+236	-260		
30		-152	+156				+254	-280		
28		-210	+212				+275	-301		
26		-164	+167				+341	-363		
24		-78	+79				+392	-416		
22		-39	+45				+346	-359		
21		-67	+72				+332	-337		
19		-107	+113				+189	-228		
18		-138	+140				+189	-204		
16		-249	+253				+244	-232		
14		-364	+368				+261	-284		

GEI FIELD SHEET
INCLINOMETER DATA

BORING SI-85-6 PAGE 2 OF 2

PROJECT NO. 86934 PROJECT NAME Ball Mountain Dam
DATE 11-19-87 CALCULATED BY _____ ON _____
READ BY W. STUREK
INSTRUMENT NO. F-79-2 CHECKED BY _____ ON _____

DEPTH	ORIG. DIFF.	AZ=Down Stream A+	A-	NEW DIFF.	CHANGE	ORIG. DIFF.	AZ=Spillway B+	B-	NEW DIFF.	CHANGE
13		-367	+374				+231	-258		
11		-346	+349				+76	-100		
9		-345	+349				-57	+40		
8		-347	+351				-49	+32		
6		-257	+260				+63	-93		
4		-184	+187				+114	-129		
2		-194	+185				+68	-91		