

REPORT ON THE SURVEY FOR BRIDGE CONSTRUCTION PROJECT
OVER THE JAMUNA RIVER IN BANGLADESH

(LAND SURVEY)

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July - November 1973

OVERSEAS TECHNICAL COOPERATION AGENCY

INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION (JAPAN)

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| 國際協力事業團 | | |
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REPORT ON THE SURVEY FOR BRIDGE CONSTRUCTION PROJECT
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(Land survey)

Foreword.

The survey was carried out to obtain necessary data and information for the bridge construction project over the Jamuna River in Bangladesh; the data and information for enabling comparison and selection of the most suitable site for bridge construction from among the four sites proposed.

In the survey were conducted the cross-sectional sounding of the river, flow velocity measurement, leveling and water-level observation, especially in the rainy season.

Acknowledgements are due to all officials of the Government of Bangladesh and other persons concerned, for their kind instructions and encouragements rendered to the survey team.

1. Survey plan:

(1) Survey site.

The Jamuna River basin (See Fig.1).

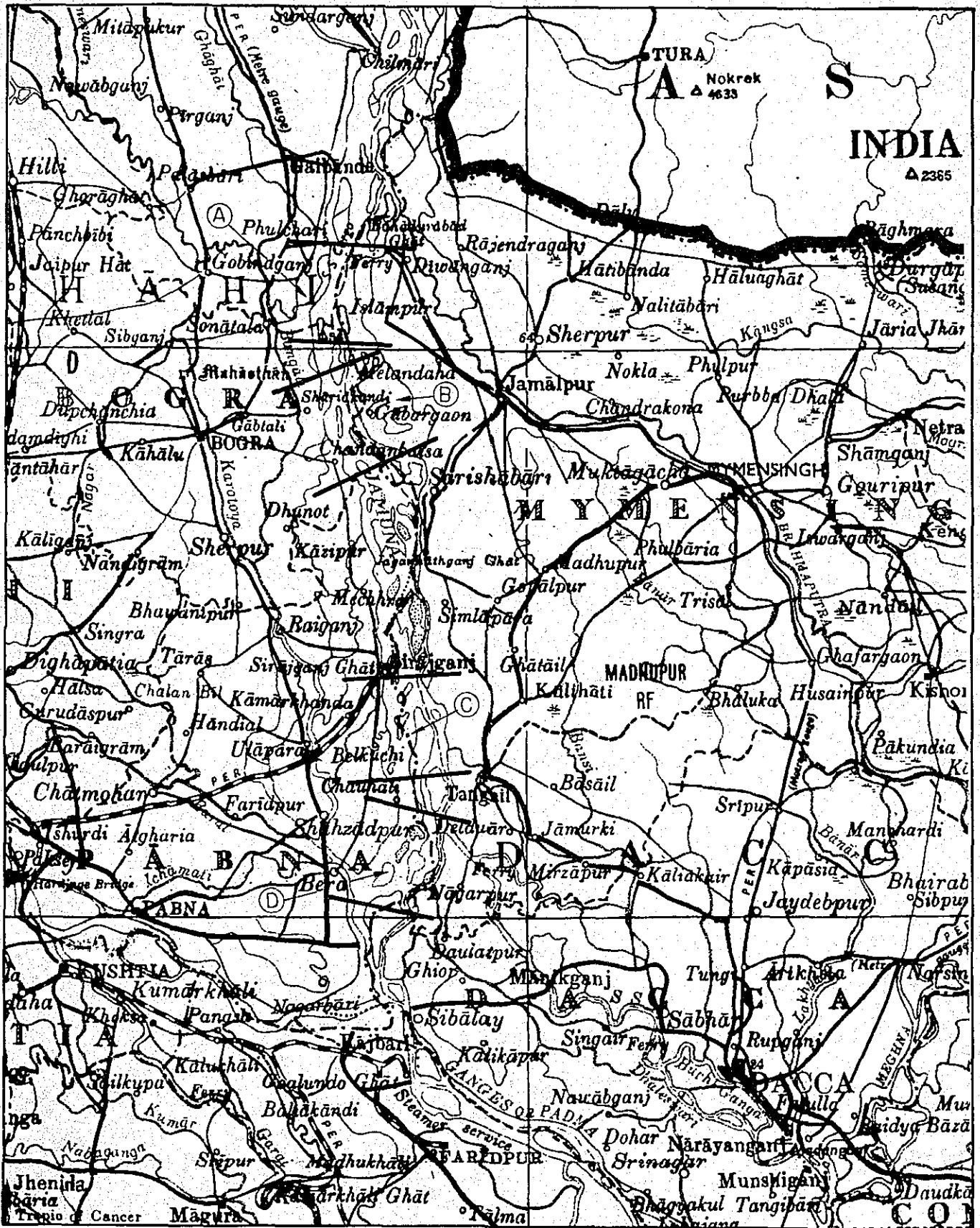
(2) Survey period.

From July to November, 1973.

(3) Outline of survey.

(a) Cross-sectional sounding and flow velocity measurement of the river.

BANGLADESH



Scale 1:1,000,000

The survey site is divided into four sections, each extending 20 km over the river as shown in Fig.1. The cross-sectional sounding of the river will be carried out in each section. The intervals between sounding lines will be about 2 km in Section A (Bahadurabad) and Section B (Gabargaon) and about 1 km in Section C (Sirajganj) and Section D (Nagarbari). The totaled number of the sounding lines will be 60.

Measurements of flow velocities will be carried out at the cross-sectional part of the proposed bridge construction route of each section, at intervals of about 500 m on the average.

(b) Control survey.

Control points on land will be established as required for fixing the positions of the ships engaged in the cross-sectional sounding and velocity measurement.

(c) Leveling.

To obtain the datum level for cross-sectional sounding and for water-gauges as well as for the heights of land features, direct leveling will be conducted from the existing bench-mark as to each proposed construction site.

(d) Water-level observation.

Simultaneous water-level observation will be conducted for each proposed site, at stations, one at the upstream and another at the downstream extremities of the cross-sectional sounding area and others at the cross-sectional places where flow velocity measurement will be carried out.

(4) Instruments to be used.

Cross-sectional river sounding :

For electronic distance measurement - Hydrodist MRB-II.

For echo-sounding - Improved type of SD-1500.

Control survey on land :

For electronic distance measurement - Tellurometer

CA-1000.

For angle measurement - Transit TM-10B.

Leveling :

Auto-Level B-2.

Flow velocity measurement :

Electric current-meters CM-1 and CM-2.

2. Progress schedule.

As shown in Table 1.

3. Details of survey.

(1) Control survey.

Establishment of control points were originally arranged as following:

Three control points were to be established as to each section, one in the vicinity of the proposed construction route at the center of each proposed site for bridge construction, and one each at the point about 10 km either upstream or downstream of the route. Each position would be fixed by traversing using a Tellurometer and a transit, and expressed on an inde-

Table 1-1. PROGRESS SCHEDULE (Control survey team) 1973

----- Planned
 _____ Conducted

| | July | August | September | October | November |
|-------------------|----------------|--|----------------------------------|----------------|----------|
| Travel | 26-27 28-27 | | | 10-11 9-12 | |
| Preparation | 28-31 28-31 | 1-5 9-13 14-20 21-28 29-31 | 3-4 5-11 12-23 24-30 | 8-9 6-8 | |
| Shift | 2-3 7-2 | | 16-19 15-18 22-24 25-28 | 6-7 | |
| Survey | | 6-13 21-28 | 5-12 14-21 25-28 | 17-20 21-27 | |
| Calculation | | 16-18 31-2 | 15-17 10-12 14 | 30-2 | |
| Reconnaissance | | | | | |
| Weather hindrance | | 14-15 29-30 | 13-14 28-29 | | |
| Waiting | | 10-12 21-25 27-2 | 1-9 16-17 | 7 | |
| Removal | | | | 3-5 3-5 | |

Table 1-2.

PROGRESS SCHEDULE (Leveling team)

1973

----- Planned
 ————— Conducted

| | July | August | September | October | November |
|-------------------|----------------|-----------------------|--------------------|---------|----------|
| Travel | 26-27 26-27 | | | 10-11 | |
| Preparation | 28-31 28-31 | 4-5 5-7 | | 8-9 | |
| Shift | | 14-20 17-3 | 3-4 18-19 | 6-7 | |
| Leveling | | 6-8 15-21 29-30 | 5-5 14-20 29 | | |
| Reconnaissance | | 3-4 | | | |
| Weather hindrance | | 16-18 31-2 | 15-17 30-2 | | |
| Waiting | | | | | |
| Removal | | | | 3-5 | |

→ On and after 9 August, the same as the control survey team.

Table 1-3. PROGRESS SCHEDULE (Cross-sectional survey team)

1973

----- Planned
 _____ Conducted

| | July | August | September | October | November |
|--|----------------------------|--|--|---|---------------------------------------|
| Travel | ----- 25-27 _____ 28-29 | | | | ----- 2-3 _____ 4-5 _____ 13-16 |
| Preparation | ----- 28 _____ 29 | ----- 18-20 _____ 21-23 _____ 24-26 | ----- 15-17 _____ 18-20 _____ 21-23 | ----- 6-8 _____ 9-11 _____ 26-27 | ----- 19-20 _____ 21-22 |
| Shift | ----- 3 _____ 4-6 | ----- 7 _____ 12 _____ 20-21 _____ 30 | ----- 3-4 _____ 23-24 _____ 8-10 | ----- 7-8 _____ 21-22 | |
| Construction of marks | | ----- 7-12 _____ 30 | | | |
| Preparation of sheets | | ----- 13-15 | | | |
| Sounding | | ----- 16 _____ 25 | ----- 5 _____ 7-9 _____ 18-19 _____ 20-23 _____ 24-27 _____ 29-31 | ----- 9-13 _____ 14-15 _____ 16-18 _____ 19-21 | |
| Flow velocity measurement | | ----- 26-27 | ----- 15-18 _____ 22 | ----- 3 _____ 4 _____ 17-18 _____ 19 | |
| Weather hindrance | | ----- 30-2 | ----- 19-22 _____ 22-30 | ----- 4-6 _____ 19-20 | |
| Waiting | ----- 30-1 | ----- 18-20 _____ 21-23 _____ 30 | ----- 7-8 _____ 15 | | |
| Removal | | | | ----- 27-28 _____ 29-30 _____ 31 | |
| Refloating work, Clearing up remaining business, Translation | | | | ----- 24-27 _____ 28-31 | ----- 7 _____ 10-13 |

pendent local coordinates system for each proposed site. It was also originally planned that as to the site selected for the construction of a bridge, the positions of those control points for that site were, at the second stage of the work, to be geodetically fixed by connecting them with a nearby fixed point. This plan was, however, not practised, because the commencement of the work of the control survey team was delayed for almost a month, and, as the cross-sectional survey had to be carried out in all the four sections as originally scheduled, the control survey team had to carry out the work along with the altered plan of cross-sectional survey in which the radar navigation method had to be consequently adopted.

The survey carried out in practice was to measure the distance with the Tellurometer between those points that could be fixed on the mozaic of aerial photographs of the locality taken 1970-1971, to obtain the scale of the mozaic. The distance measurement was carried out at the upstream and downstream ends and the middle part of the proposed site in Sirajganj Section, while in Nagarbari Section, at the upstream end and the middle part. At the downstream end of this section, no point could be obtained due to the flood where nothing was sighted but water. Since the Gabargaon and Bahadurabad Sections were closely located each other, they were combined into one and the distance measurements were carried out at four places in total. (See Material 1.)

(2) Leveling.

It was originally planned to establish three water-gauges in each section, i.e. one each at the upstream and downstream extremities and one near the proposed bridge construction route, and the height of the gauge was to be measured and determined by means of direct leveling from the nearby existing bench-mark. In the actual survey, however, two temporary bench-marks only could be confirmed by searching carried out in approaches to Sirajganj Section after the survey team had moved there early August, and the leveling was carried out up to the upstream extremity of the section based on the result of checking these two bench-marks. Thereafter, for about a month, the survey team had no measure to move due to difficulty in obtaining local information from the native people because of lack of a counterpart to accompany who might have worked well for this purpose, and also due to the delay in arrival of the survey ship which was used as a moving base. Thus, more than a half of the scheduled period had passed in vain, until the leveling was finally suspended and the surveyors in charge were reassigned to assist the work of the control survey team.

(3) Water-level observation.

Originally it was planned to make the simultaneous observation of water-level at the water-gauges to be established at the upstream and downstream extremities of the proposed site and at each cross-section where flow velocity measurement were to be

carried out. However, as the leveling could not be carried out as originally scheduled, the necessary values were obtained by the analysis using the data from 20 stations of the water-level observations carried out by BWAPDA. All these data were correlated by the standard of P.W.D. It is noted, however, that the water-gauges had been shifted average five times a month because the water-level of the river had been fluctuated violently. The water-gauge was of a simple type made of bamboo, and at each time of the shift leveling from a temporary B.M. had been carried out. In the analysis, the original data were prepared in Bengali so that they had to be translated into English, and the entries in feet were converted into metres. The data used were obtained by taking the means of the values of two gauges closer to the survey site at the time of sounding. (See Material 2.)

The water levels during September to October 1973 at each water-gauge established in the Jamuna River are illustrated on the figures included in Material 2. From those figures, though it cannot be sweepingly said, it is found that there is a tendency where the water-level became lower towards the lower reach of the river. This is considered due to the separation of the flow into branch rivers such as the Dhaleswari River, the channel storage and the great deal of inundated water resulted from the flood-level becoming higher than the inland ground. On the right bank of the Jamuna River, although a levee was constructed, the majority of junction points of the branch rivers are

not only left open but also lacking back levees, so that the inundation into the inland due to the rise of the level of the main stream seemed to be of considerably large amount, though not so large as that on the left bank.

(4) Cross-sectional sounding.

(a) Survey period.

Sirajganj Section : 18 to 26 September 1973.

Nagarbari Section : 27 September to 5 October 1973.

Bahadurabad Section : 8 to 15 October 1973.

Gabargaon Section : 16 to 19 October 1973.

(b) Survey vessel.

SHINPO MARU, for position fixing.

SPEEDBOAT, for sounding.

(c) Equipment.

Electronic positioning system : Hydrodist MRB-II,
accuracy ± 1.0 m.

Echo-sounder : Improved type of SD-1500, accuracy
 ± 0.1 m.

As a matter of fact, however, some changes were made to the survey plan at the time of actual survey where radar was used for electronic positioning and, for sounding, the echo-sounder type RS-61 (manufactured by Sanyo Sokki Co., with an accuracy of ± 0.1 m) was employed because of existence of a number of shoals and suspending particles in water at the survey site.

(d) Method of survey.

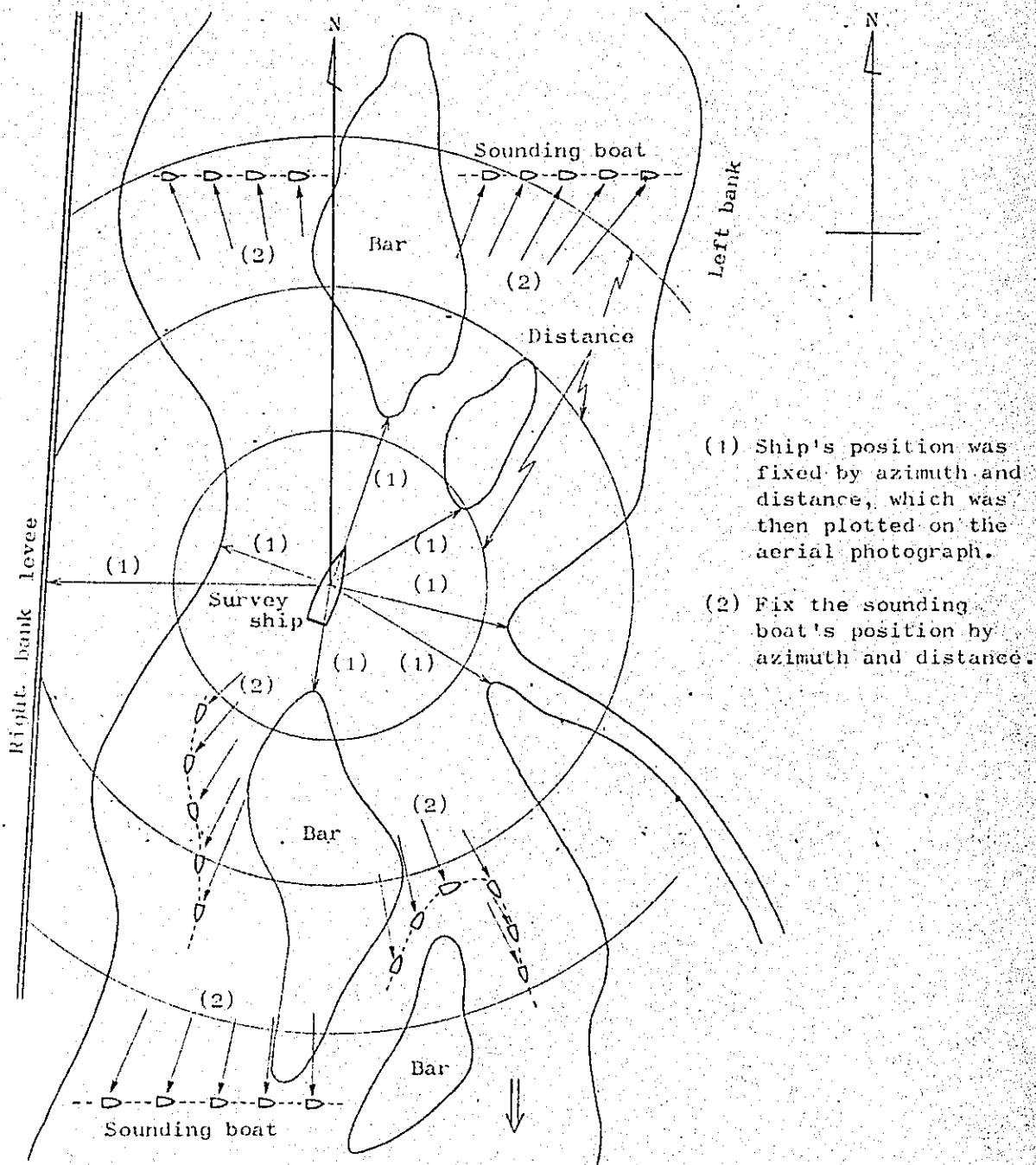
Originally it was planned to make the survey along 60 lines in total for all the four proposed bridge construction sites by using an electronic positioning equipment. In practice, however, positioning was made by radar navigation method owing to the delay in the work of control survey. The radar navigation method is as illustrated in Fig.2. The survey ship SHINPO MARU is stationed at anchor, and azimuths and distances of various points were measured (partly by using sextant), and the ship's position was fixed on an aerial photograph. Then the azimuth and distance of the sounding boat (SPEEDBOAT) were measured and the position of the sounding boat was fixed. Due to this, the accuracy in position fixing was slightly decreased, but the conditions of the banks and bars were fully secured since the radar was used. As the survey ship went aground due to the pilot's unfamiliarity with the locality, the SPEEDBOAT was exclusively employed for sounding. Consequently, sounding could be made even at the shallowest portion between bars.

The surveyed lines across the river were totaled 71, their intervals being about 2 km in the two upstream sections (Bahadurabad and Gabargaon) and about 1 km in the downstream two (Sirajganj and Nagarbari). Supplementary sounding in such areas as between bars were carried out.

(e) Results of survey.

The following materials were produced from the results of survey:

Fig. 2. Cross-sectional river survey by Radar navigation method



- (1) Ship's position was fixed by azimuth and distance, which was then plotted on the aerial photograph.
- (2) Fix the sounding boat's position by azimuth and distance.

(f) Findings.

As indicated in Material 3, the cross-sectional river sounding was carried out along 14 lines each in Bahadurabad and Gabargaon Sections, 21 lines in Sirajganj Section and 23 lines in Nagarbari Section, and the cross-sectional charts were prepared.

On the bathymetric chart, the symbol \Rightarrow indicates fairways which were considered to be the main stream, while \dashrightarrow indicates the branch stream used by ferries, etc. In some places are seen deeper portions which are considered to be old channels.

(5) Measurement of flow velocity.

(a) Date of measurement.

Sirajganj Section (SC-1 through 8) : 24 September 1973.

Nagarbari Section (NC-1 through 11) : 4 October 1973.

Bahadurabad Section (BC-1 through 7) : 11 October 1973.

Gabargaon Section (GC-1 through 9) : 17 October 1973.

(b) Survey ship.

SHINPO MARU (3 stations of SC-2, NC-2 and GC-9).

SPEEDBOAT (all stations other than the above).

(c) Instruments.

(i) Electric generation type current-meter, type CM-2.

Range of measurement : Flow velocity; 0.08 to 3.00m/sec.

Flow direction; magnetic north

from 0° to 360°.

(ii) Electric generation type current-meter, type CM-1-A.

Range of measurement : Flow velocity; 0.30 to 8.00m/sec.

Both current-meters were manufactured by Toho Dentan Co., Ltd.

In the actual survey, however, all the measurements were carried out by CM-2 current-meter only, since the velocity of the flow never exceeded 3m/sec.

(d) Method of measurement.

By using CM-2 current-meter, the direction and velocity of the flow were measured at the depths of 0.5m, 1m and every metre down to 10 metres and thence every 2 metres as far as the bottom at each of the stations located about 500-metre intervals along the cross-sectional area of the river at the middle of each section. For the measurement, the current-meter was located at the required depth by vertically moving it using a pulley attached to the ring of the anchor of the survey ship SHINPO MARU so that it may not be missing. On the SPEEDBOAT, the current-meter was placed at the required depth in the similar way, by fastening it to her anchor with a rope. (See Fig.3.)

(e) Result of measurement.

From the measured data of directions and velocities of the flow, the following results have been produced:

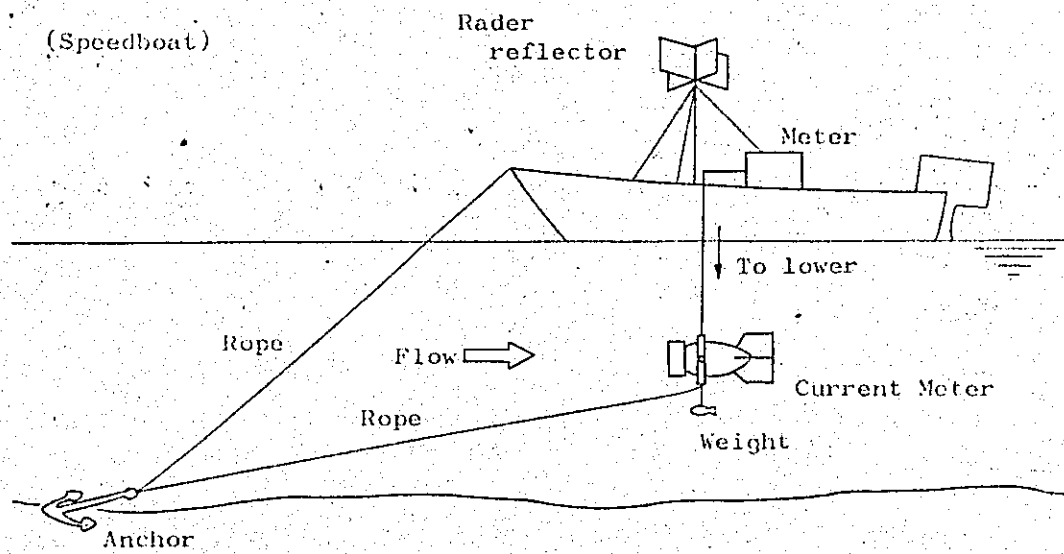
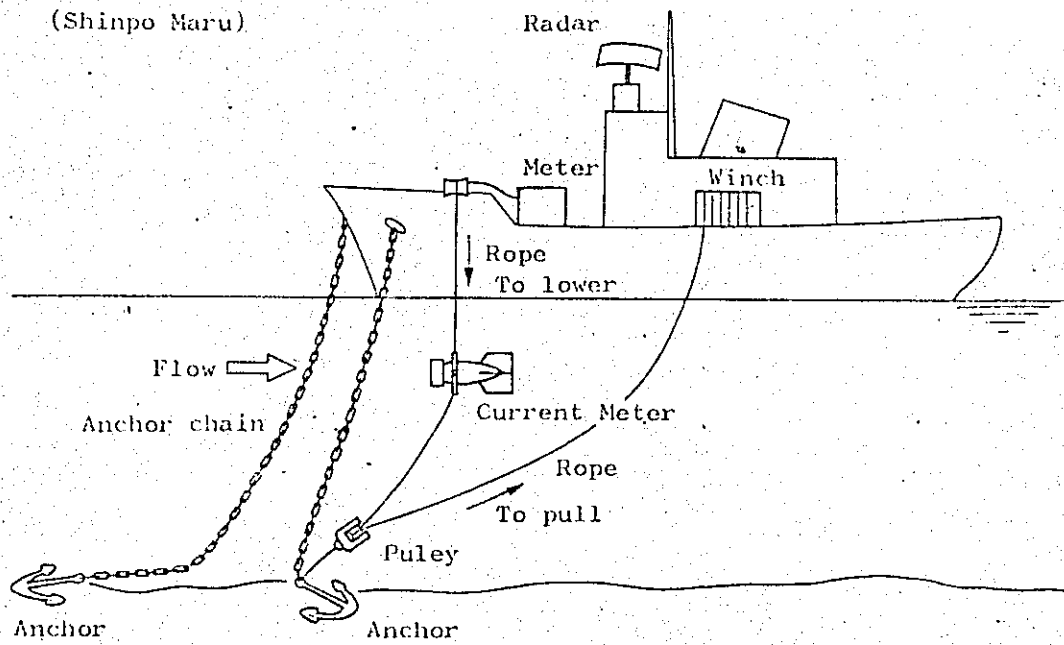
- (i) Record of direction and velocity measurements.
- (ii) Vertical distribution chart of velocities at each station.
- (iii) Cross-sectional distribution chart of velocities at each station. H:1/20,000, V = 1/100.

(See Material 4.)

(f) Findings.

- (i) Sirajganj Section.

Fig. 3. Observation of Flow Velocity & Direction with CM-2 Type Current Metter



The main stream was flowing south along the eastern bank, and the maximum velocity measured was 2.03m/sec at 2 m below the water surface at station SC-2. The slope of the eastern bank is steep and the waters are deep, which gradually become shallower towards the western bank where the flow becomes weak. The velocity of 1.0m/sec was obtained down to the layer 2 m above the river-bottom.

(ii) Nagarbari Section.

The maximum velocity obtained was 1.50m/sec at the water surface at station NC-2. The stream in this section was divided into three, among which the eastern one was the main which was used as the channel. In the western stream, however, the velocity of 1.40m/sec. was obtained, the western bank being of steep gradient and observed as scraped off by the stream.

The middle stream attained the velocity of 1.30m/sec, showing the state that it was eroding its western bank.

(iii) Bahadurabad Section.

The main stream was observed to flow a little to the west of the central part. The maximum velocity obtained was 1.59m/sec at station BC-4, almost in the middle of the cross-section.

(iv) Gabargaon Section.

The main stream was flowing closely along the eastern bank which was used as navigable channel. The maximum velocity measured was 1.62m/sec. However, the watercourse was bifurcated by a bar, and detached water plants from upper reach of the river forming narrow, long strips were observed flowing southward rather along the western watercourse, flocking together around a position

about 1 km downstream.

In summary, the stream was flowing generally following the topographic features in every section. However, in many places upwelling phenomena were observed, which were considered due to the effect of river-bed or bar. Furthermore, there were a number of places where counter-flows or eddies were observed. The velocity of flow did not considerably decrease down to the layer close to the bottom, but it then suddenly decreased from the layer around 60 cm above the river-bed. The flowing rate was not constant but seemed to have fluctuations all the time, ranging about ± 20 cm/sec.

Positions and shapes of bars were slightly changing and moving, and also the river banks were changing due to frequent floods caused by lacking of levees. Consequently, it was difficult to obtain accurate conditions of the main stream of the Jamuna River.

4. Problems for the next survey (in dry season).

(1) Reconnaissance of the survey site in the dry season.

Since the survey this time was carried out in the wet season, the reconnaissance of the survey site could hardly be carried out. For the next survey, a reconnaissance should by all means be carried out to obtain information on transportation measure from Dacca to the survey site, method of survey operations, lodging, water supply, etc. so that the next survey may well be prepared; otherwise it would be difficult to develop the original plan for

the next survey.

(2) Preparation.

If the survey teams of control points, leveling and land topography should arrive at the survey site from mid-October when the dry season will set in, it would be necessary, for the sake of smooth progress of survey operations, for the survey teams to leave Japan in mid-September and the instruments should be sent by mid-August. The team for bathymetric survey should also leave Japan in mid-October, and it is desirable that sounding operation will start from mid-November. This is because the operation should be finished by the end of February as the blooded season will set in from March.

(3) Use of survey ship.

For the last survey the survey ship was brought to the survey site. It seems not likely that the ship will again be used at the next survey in the dry season, since her size is small and a number of days are necessary for bringing her to the survey site, and, moreover, she went aground several times even in the wet season.

Since BWTA has a survey ship, it is desirable that the ship will be chartered through the negotiation on the governmental level.

(4) Attendance of counterpart on the survey.

It is desirable that a counterpart will attend the survey team on the survey, since collection of various information, such as confirmation of positions and names of places, is necessary at the time of field operations while very little people speak English.

at the survey site. As the counterpart, it is desirable that he will be an engineer of BIWTA or BWAPDA to be engaged in the field operations.

(5) Dispatch of a Japanese doctor.

Considering the shortage of doctors and medical supplies in the locality, it is strongly desirable that a doctor be dispatched from Japan to accompany the survey team, in particular, to cope with an emergency case.

(6) Procurement of materials.

It is necessary for the survey team to prepare all the materials to be required prior to go to the survey site, taking into account the difficulty in procuring those materials at the survey site. It is also necessary to consider appropriate measure of transportation of fuel which would not be available at the locality.

(7) Lodgings, water, etc.

At the next survey, the distance from the Sirajganj office to the survey site will become farther. Accordingly, it would be necessary to consider feasibility of camping with a simple prefabricated house or large-sized tent as the lodgings. At such facilities it is desirable to equip a large water tank for water supply, storages of instruments and foods, electric facilities including a large refrigerator (which is indispensable), etc., all of which will be necessary for the living of survey team members. It is also considered that the lodging facilities will be sufficiently guarded by police.

Material - 1

Control Survey Data

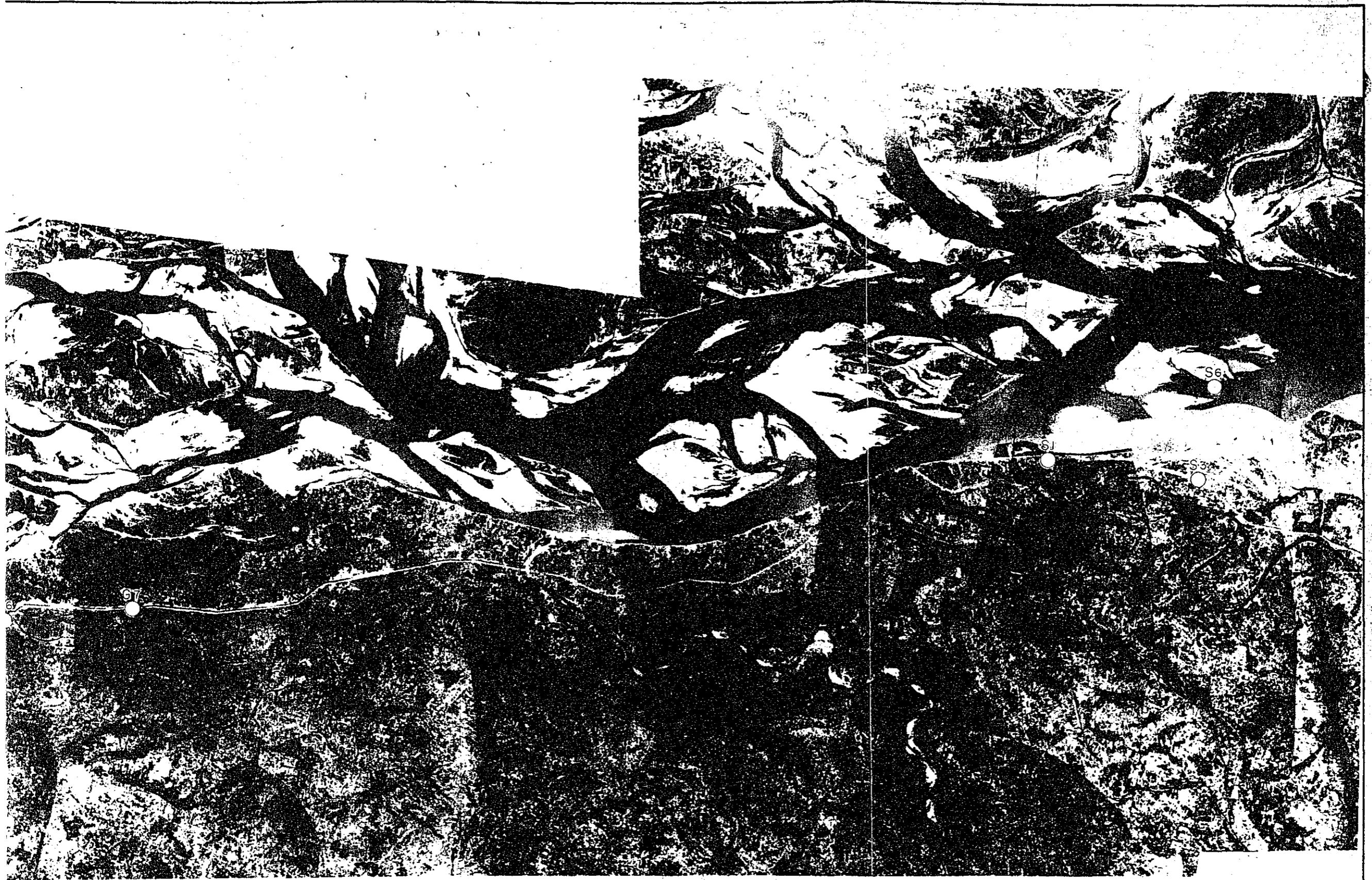
TELLUROMETER (GA-1000) FIELD RECORD

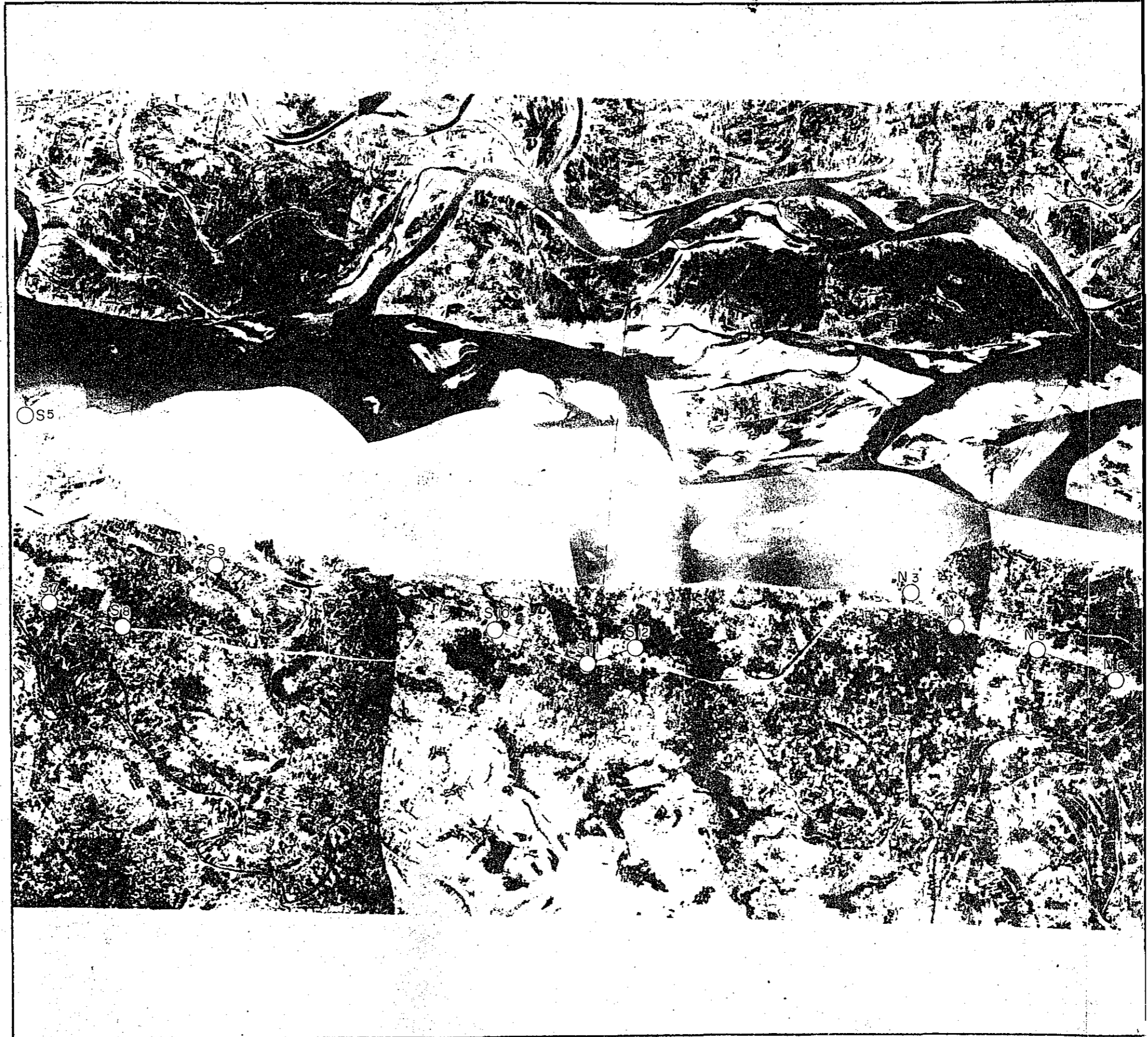
| SITE | DISTANCE | MEAN DISTANCE |
|---------------|---|-----------------------------|
| (SIRAJGANJ) | | |
| S-1 -- S-5 | 1) 7426.516 ^M 2) 7426.504 | <u>7426.509^M</u> |
| S-6 -- S-3 | 1) 2203.582 2) 2203.573 3) 2203.507 | <u>2203.554^M</u> |
| S-6 -- S-5 | 1) 3329.146 2) 3329.194 | <u>3329.170^M</u> |
| S-7 -- S-8 | 1) 1672.693 2) 1672.732 3) 1672.741 | <u>1672.722^M</u> |
| S-8 -- S-9 | 1) 2345.317 2) 2345.302 | <u>2345.310^M</u> |
| S-10 -- S-11 | 1) 2036.746 2) 2036.713 | <u>2036.730^M</u> |
| S-11 -- S-12 | 1) 1196.554 2) 1196.512 3) 1196.497 | <u>1196.521^M</u> |
| (NAGARBARI) | | |
| N-1 -- N-2 | 1) 1783.036 2) 1782.988 | <u>1783.012^M</u> |
| N-3 -- N-4 | 1) 1202.155 2) 1202.167 | <u>1202.161^M</u> |
| N-5 -- N-6 | 1) 1745.998 2) 1746.001 | <u>1746.000^M</u> |
| (BAHADURABAD) | | |
| G-1 -- G-2 | 1) 1401.202 2) 1401.139 | <u>1401.171^M</u> |
| G-1 -- G-3 | 1) 4379.158 2) 4379.125 | <u>4379.142^M</u> |
| (GABARGAON) | | |
| G-4 -- G-5 | 1) 3962.041 2) 3962.026 | <u>3962.034^M</u> |
| G-6 -- G-7 | 1) 2819.494 2) 2819.476 | <u>2819.485^M</u> |





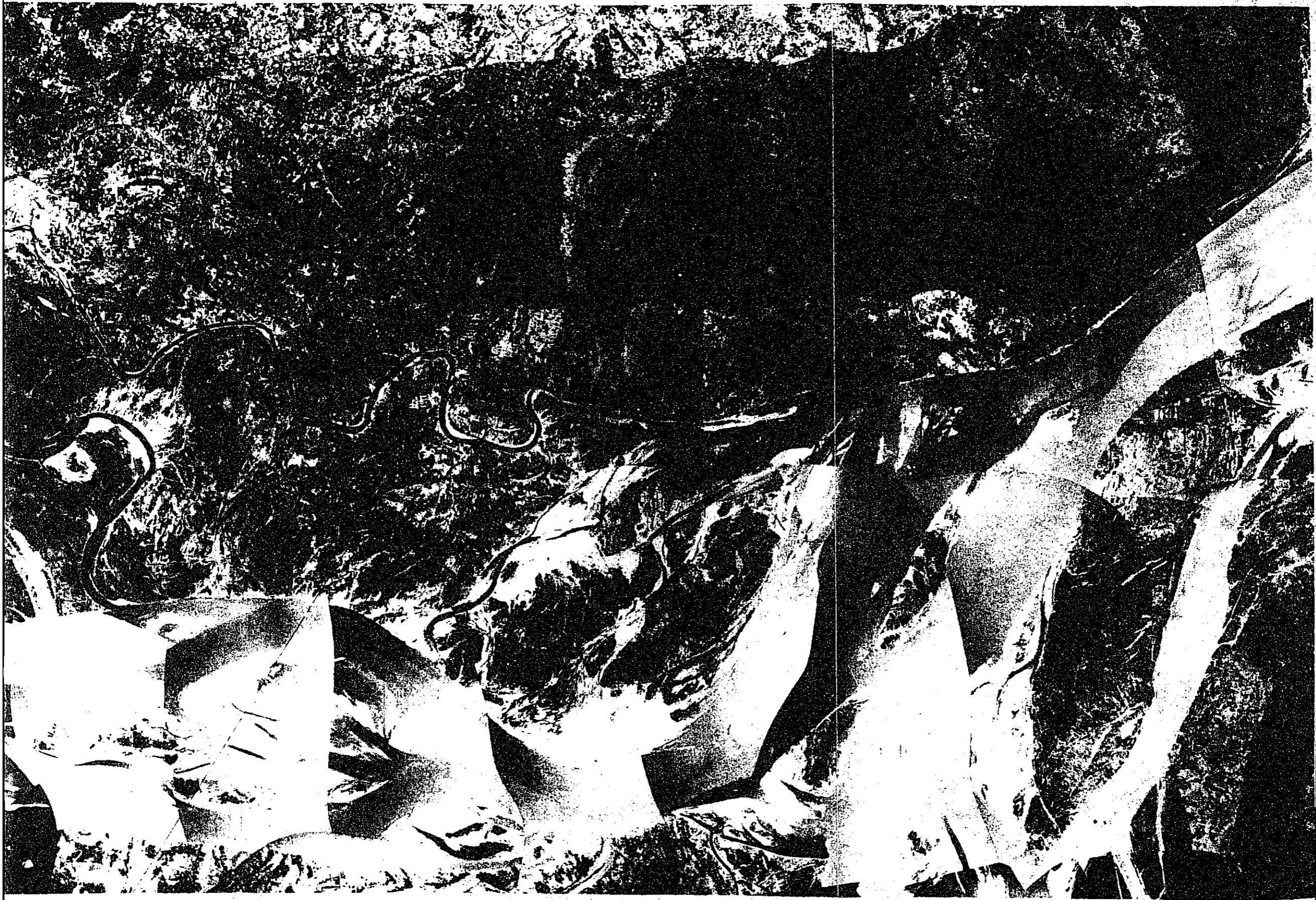




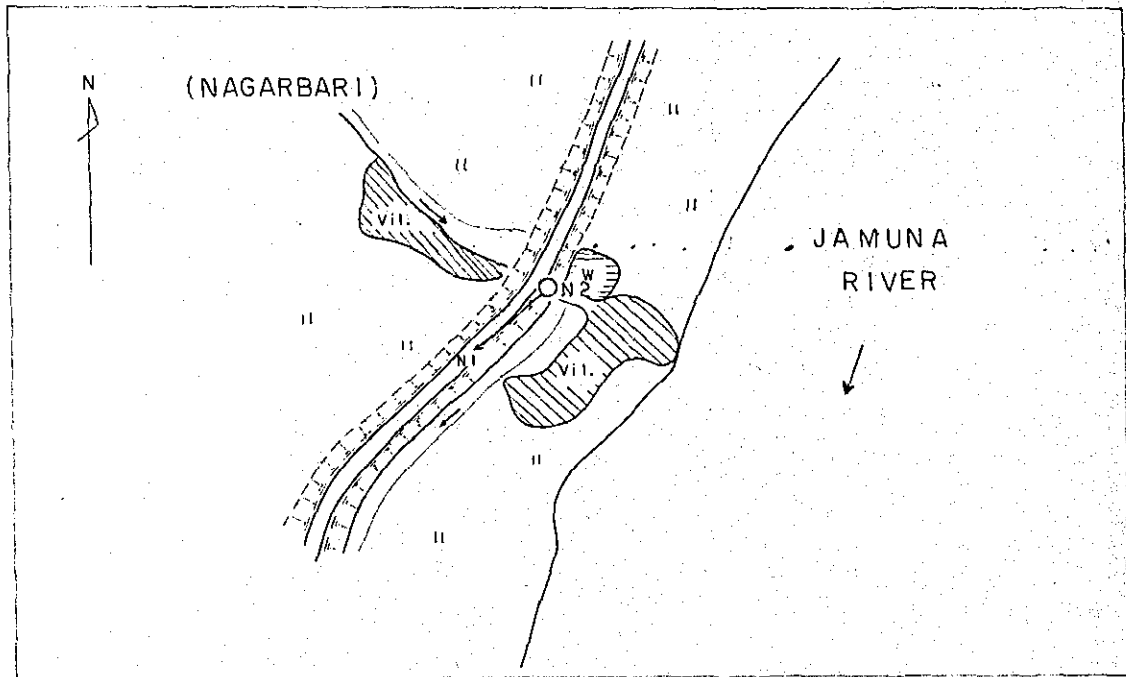
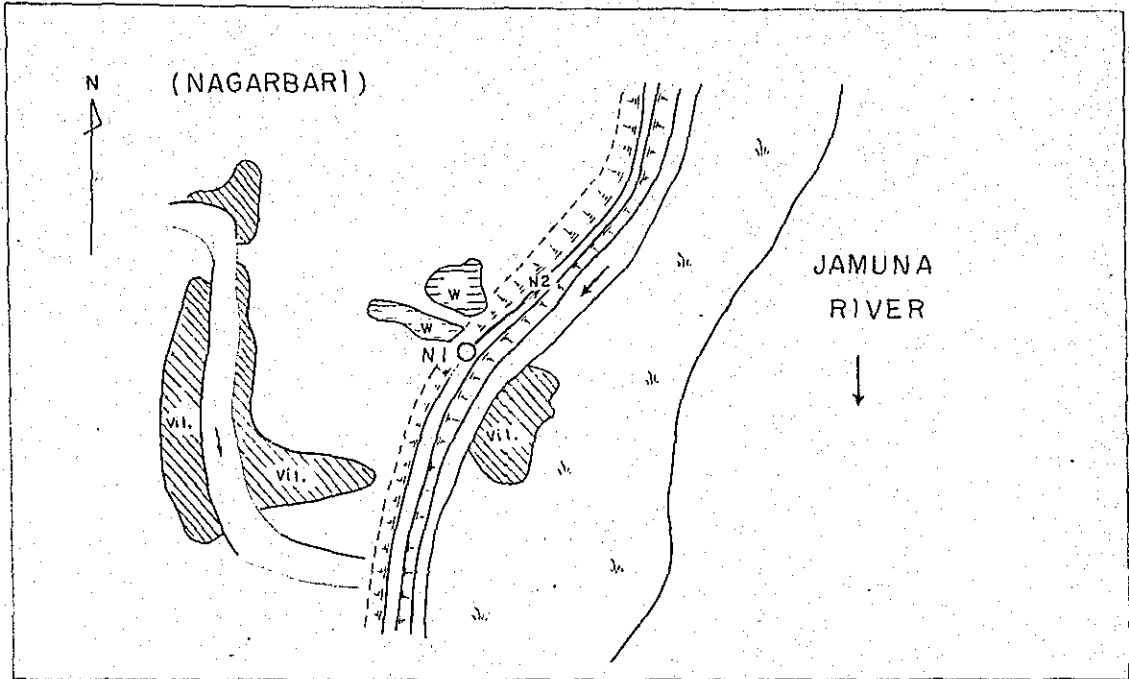


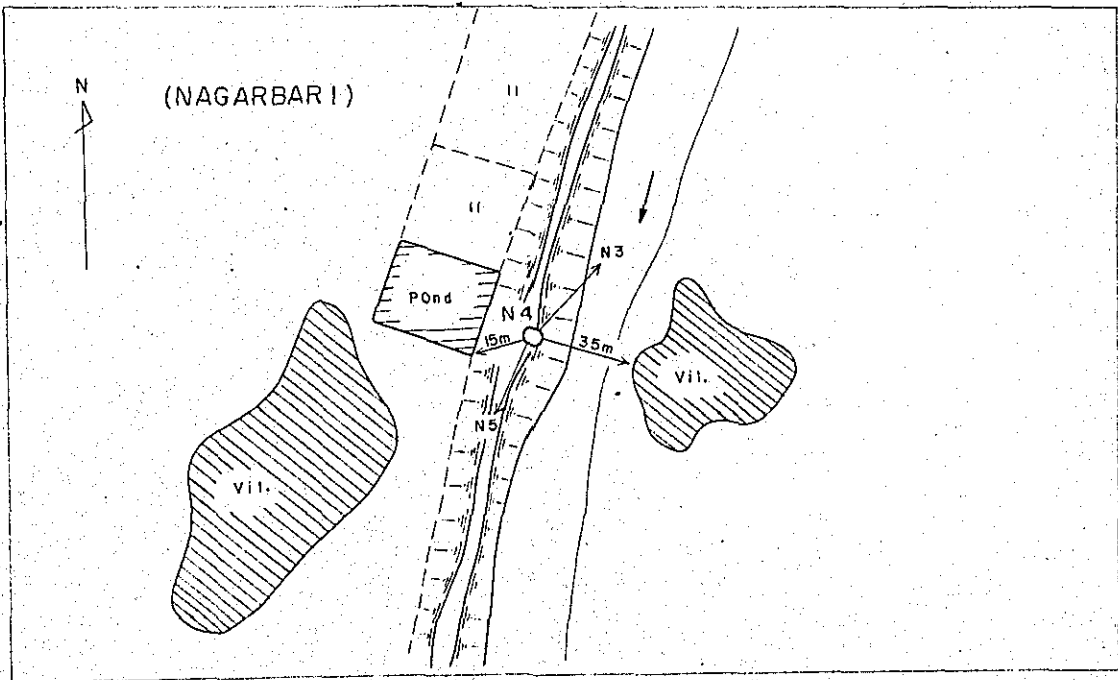
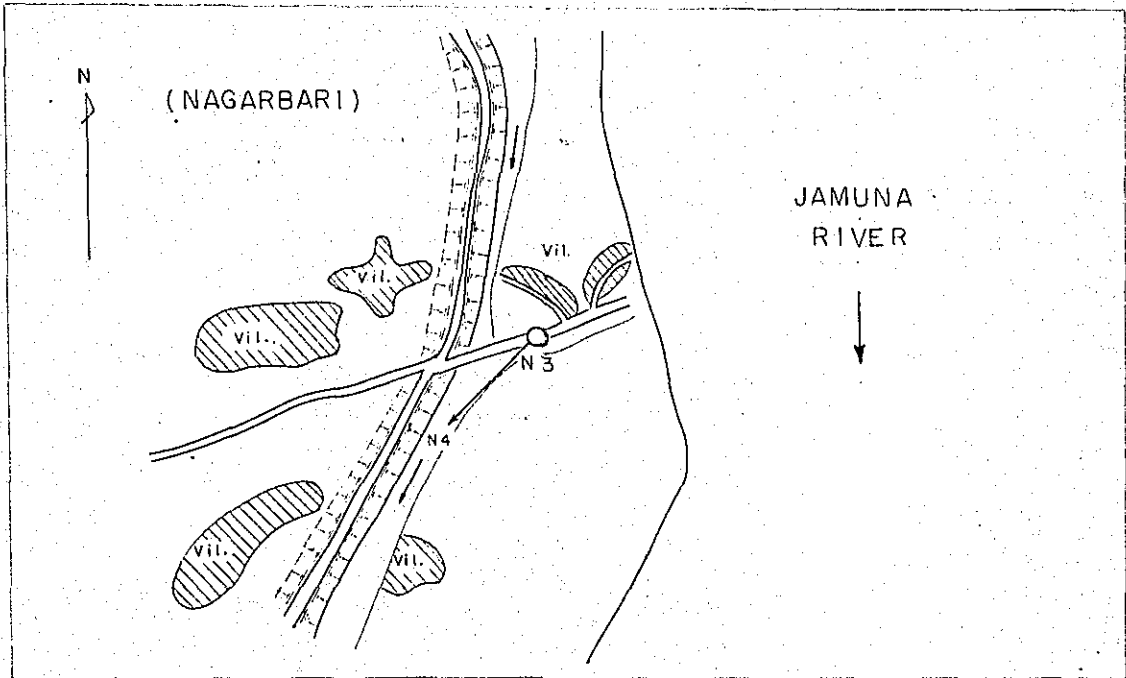


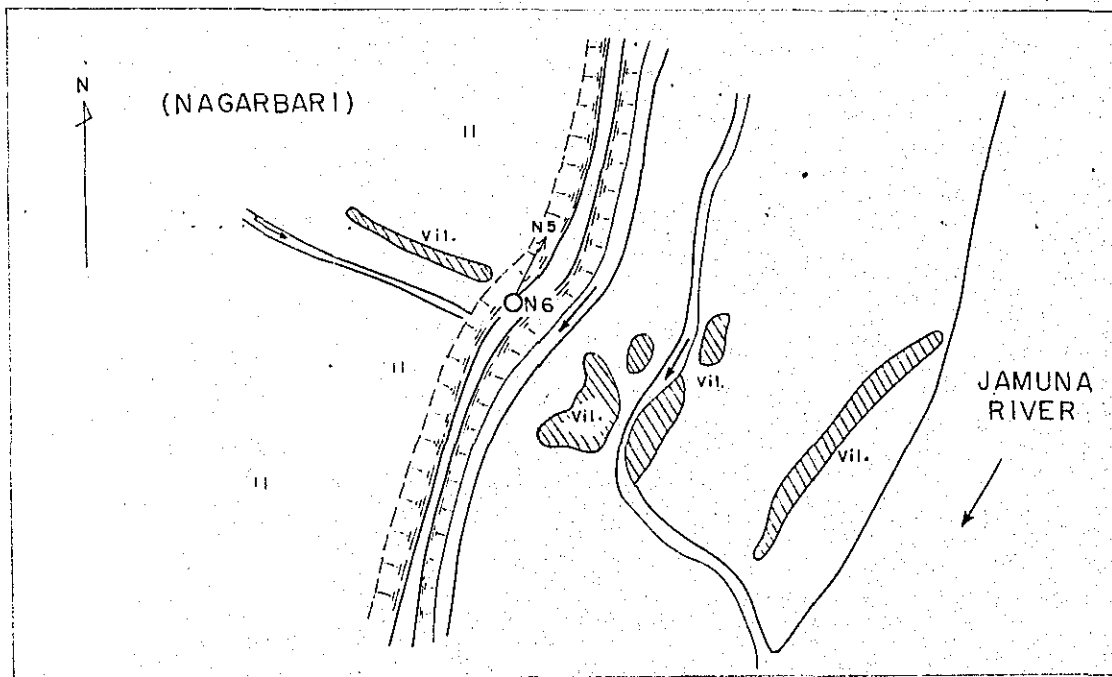
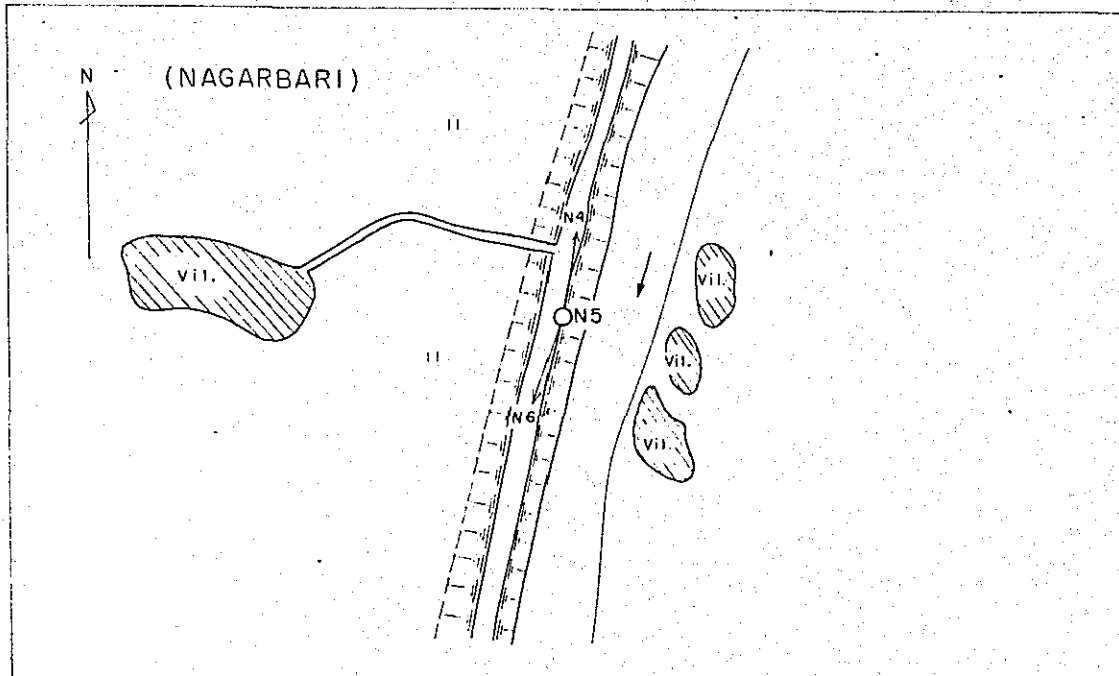


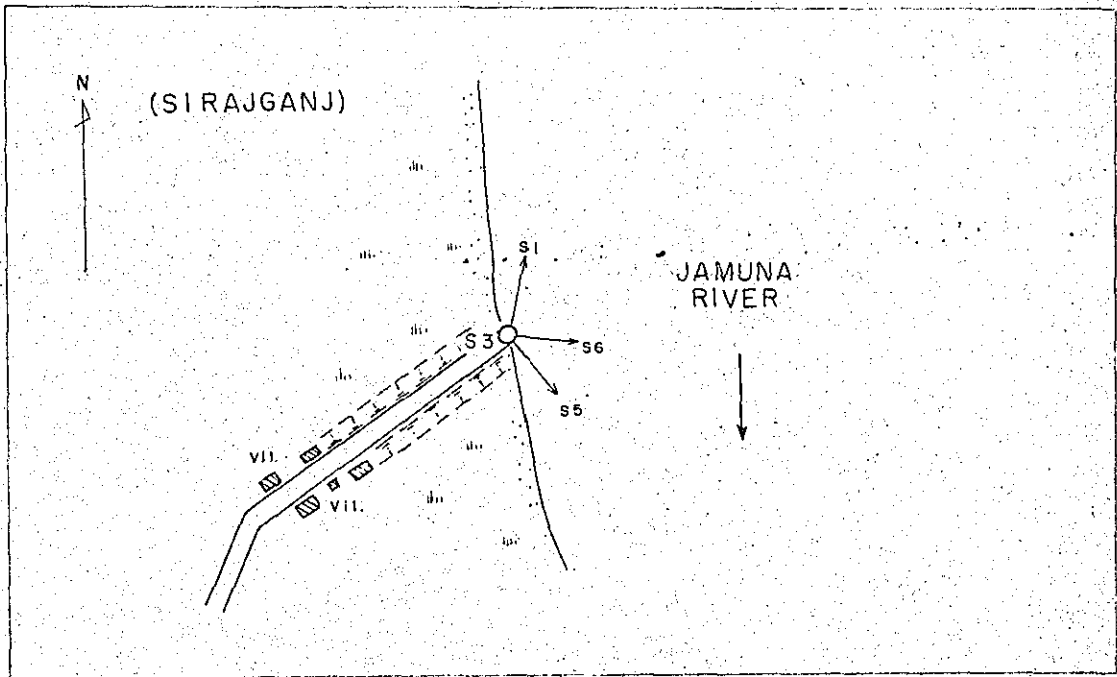
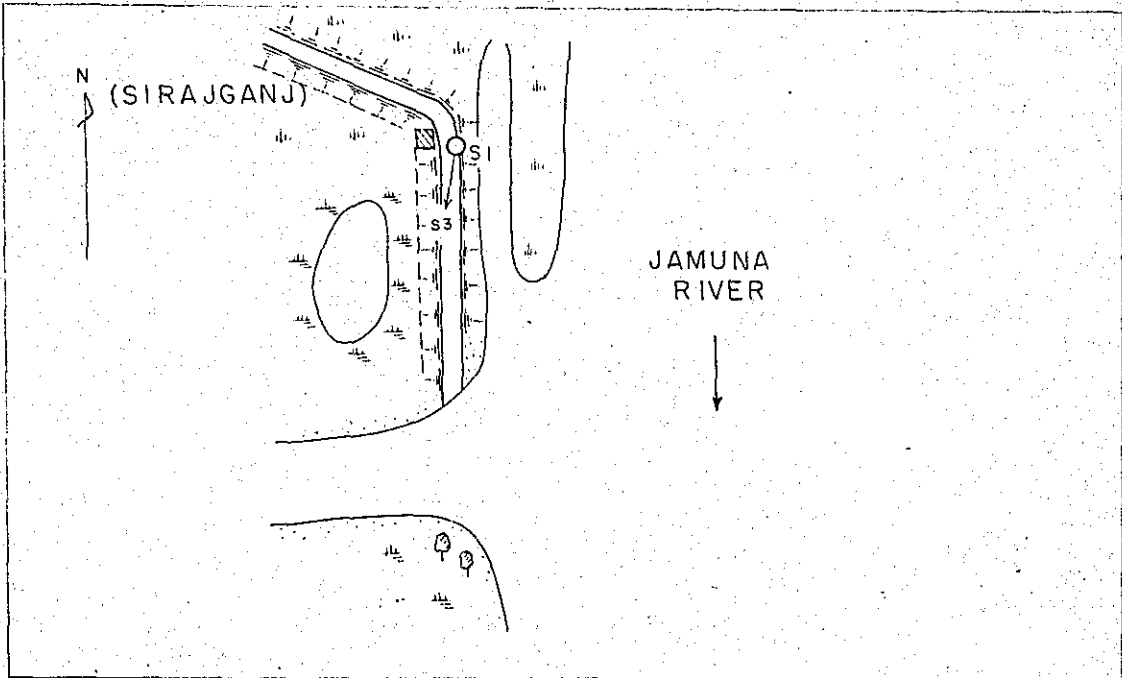


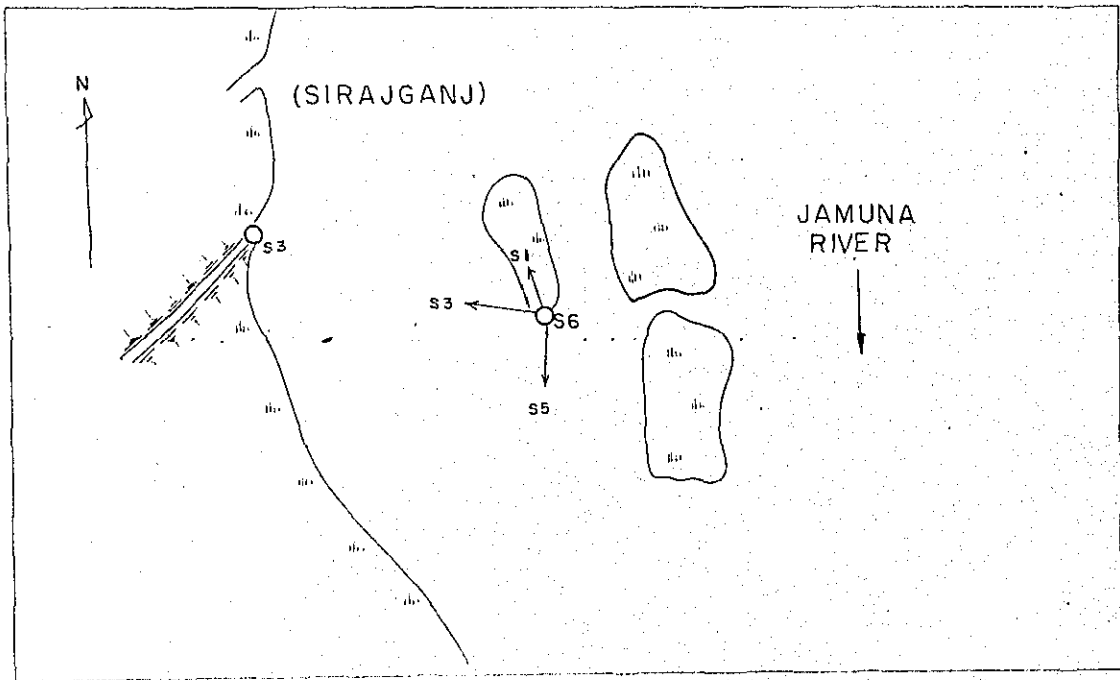
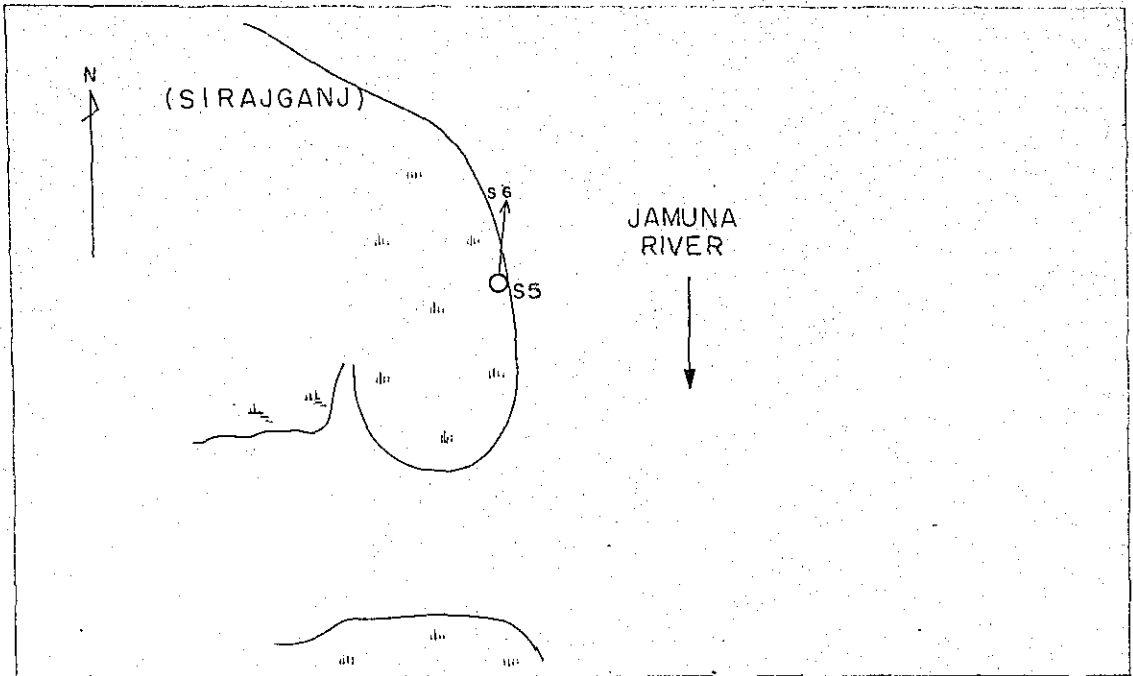
Location of Main Station

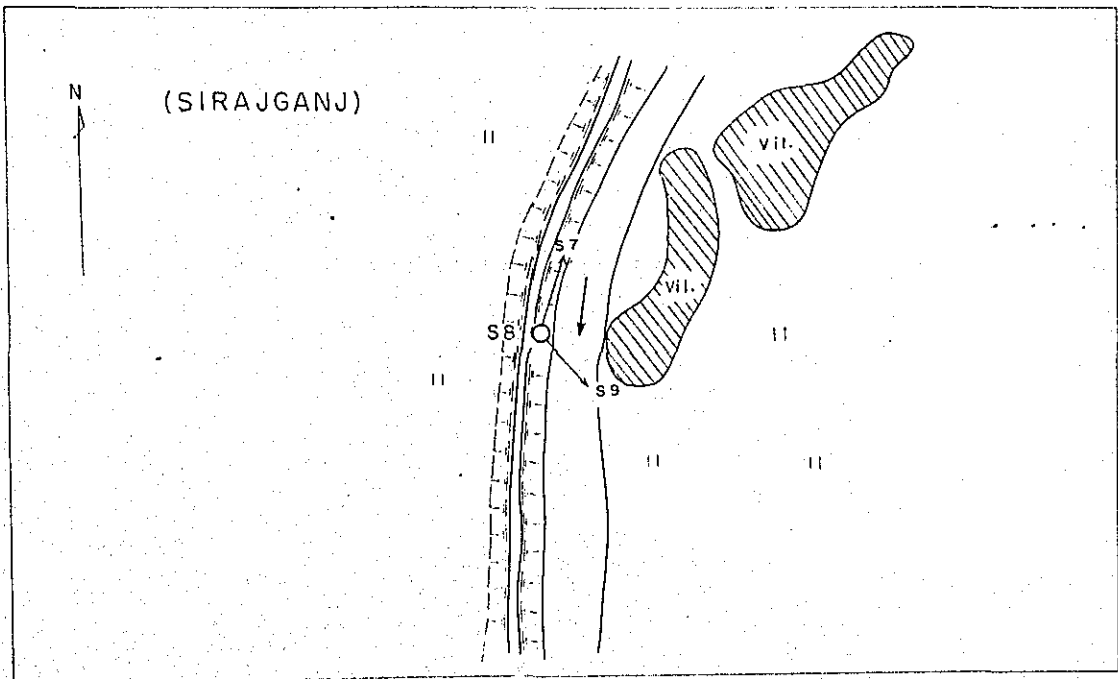
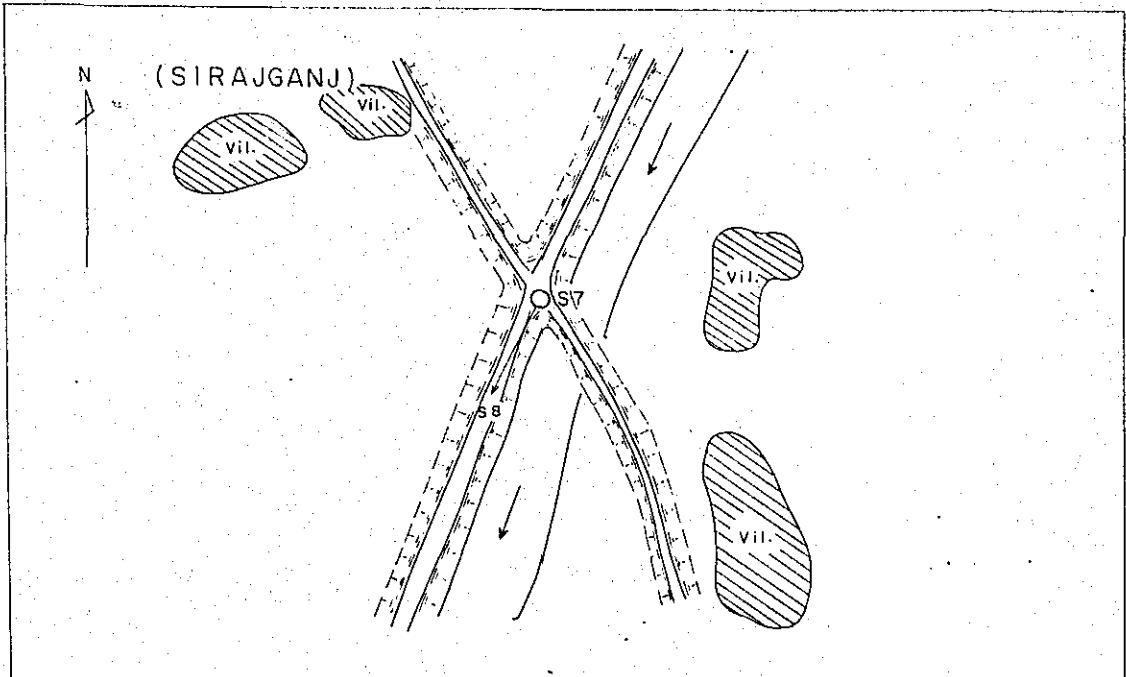


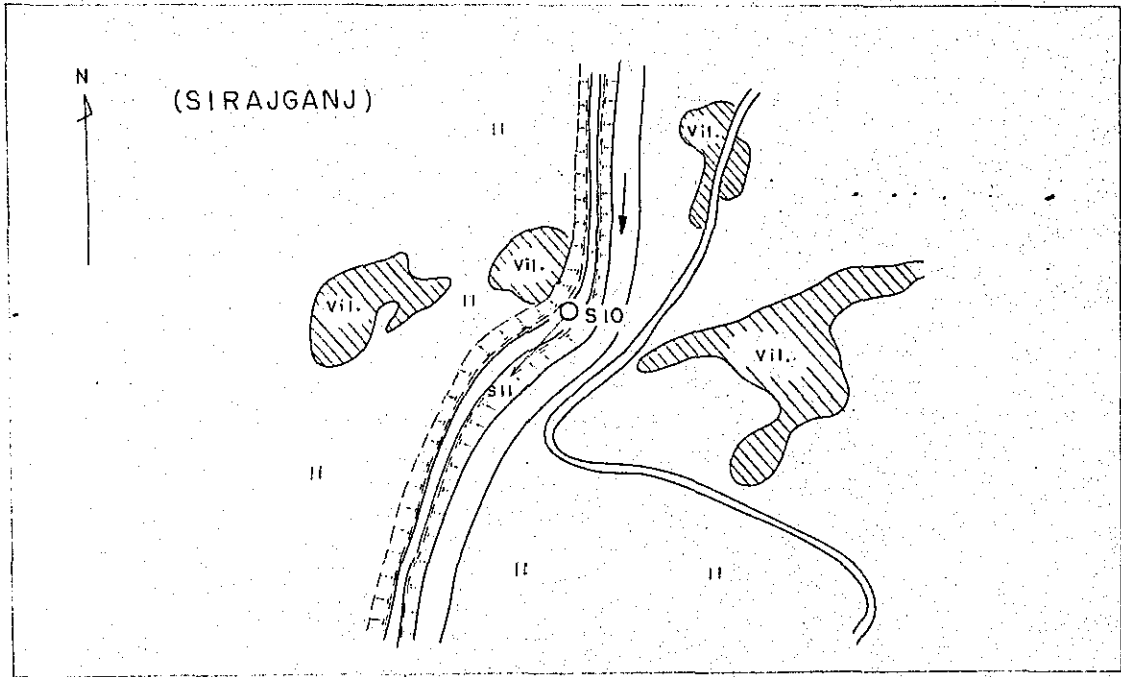
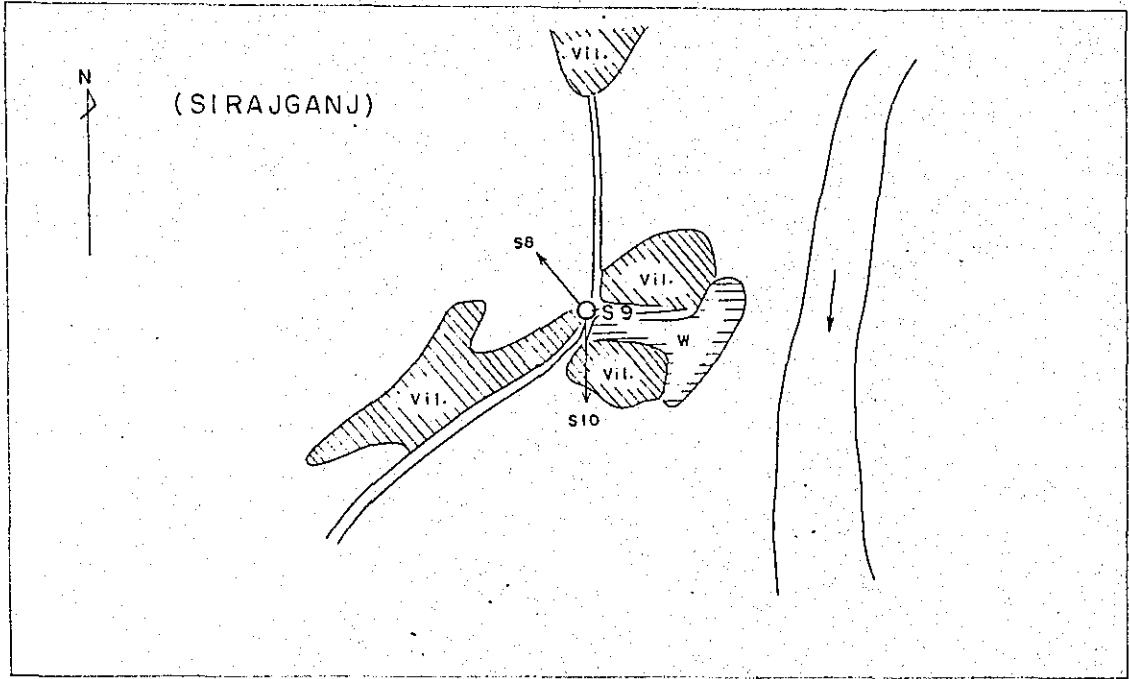


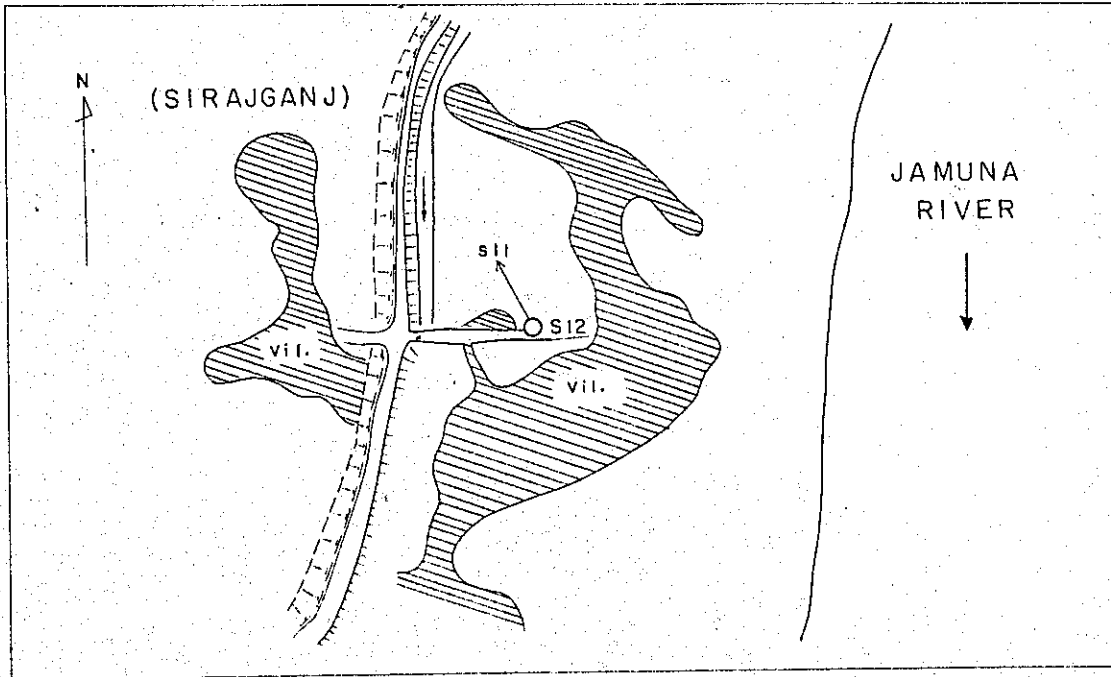
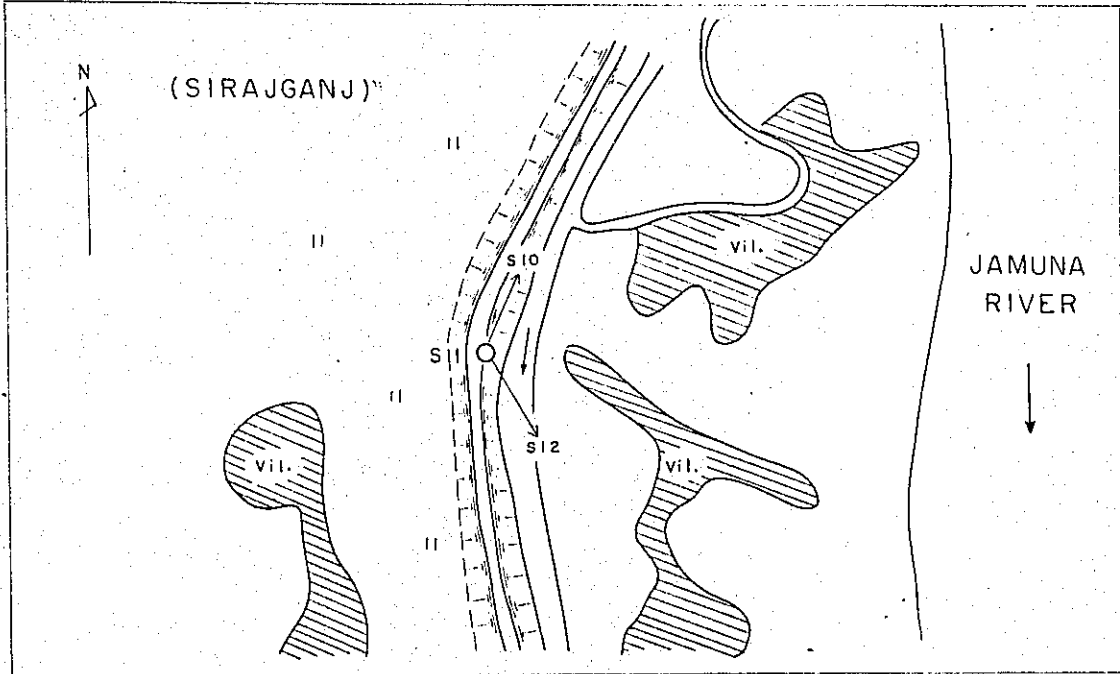


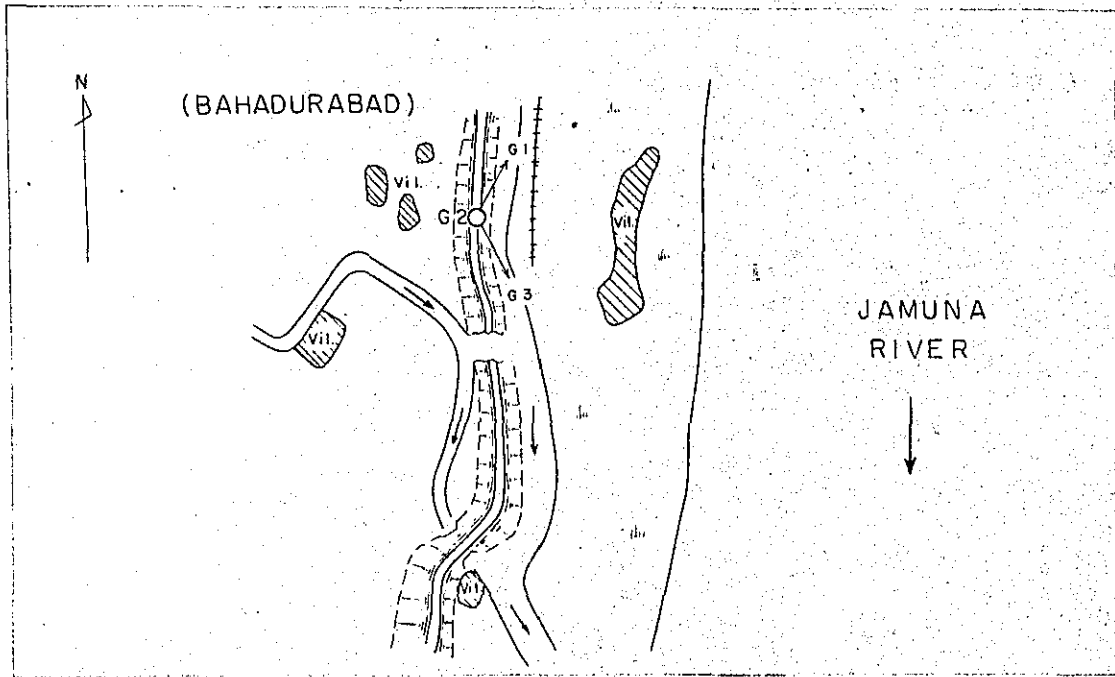
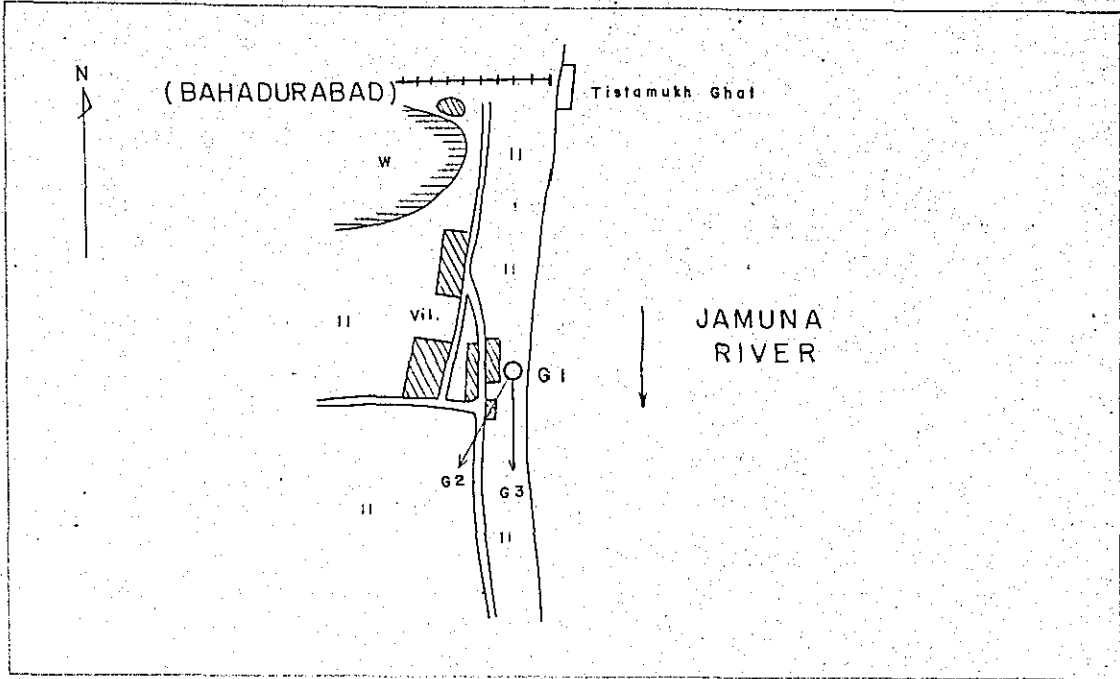


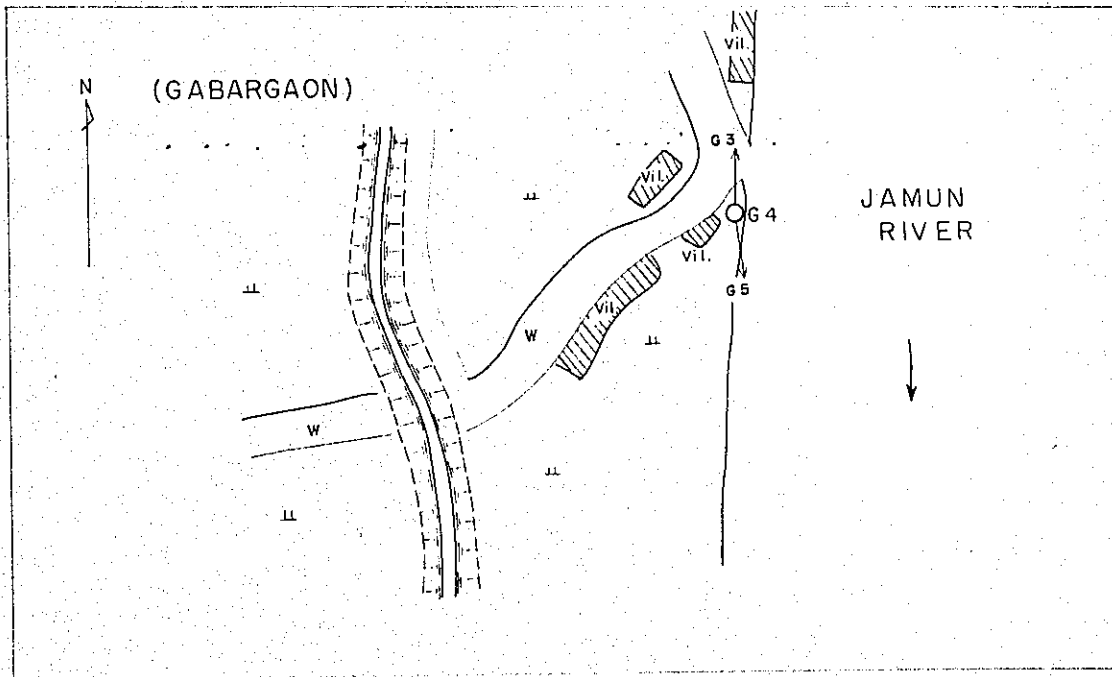
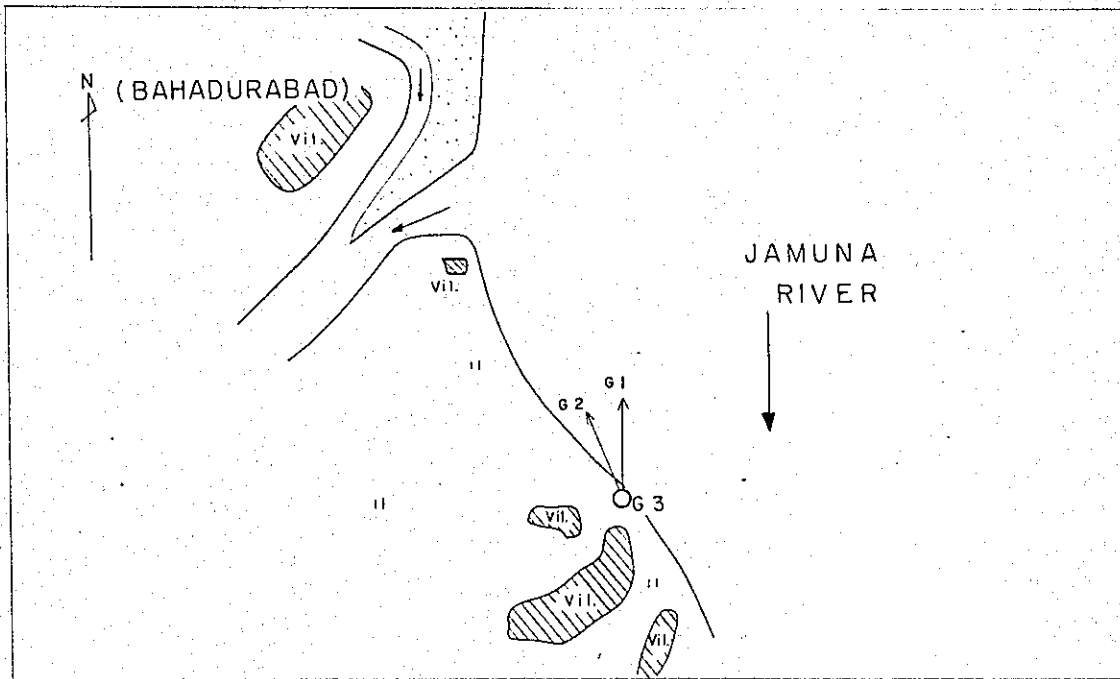


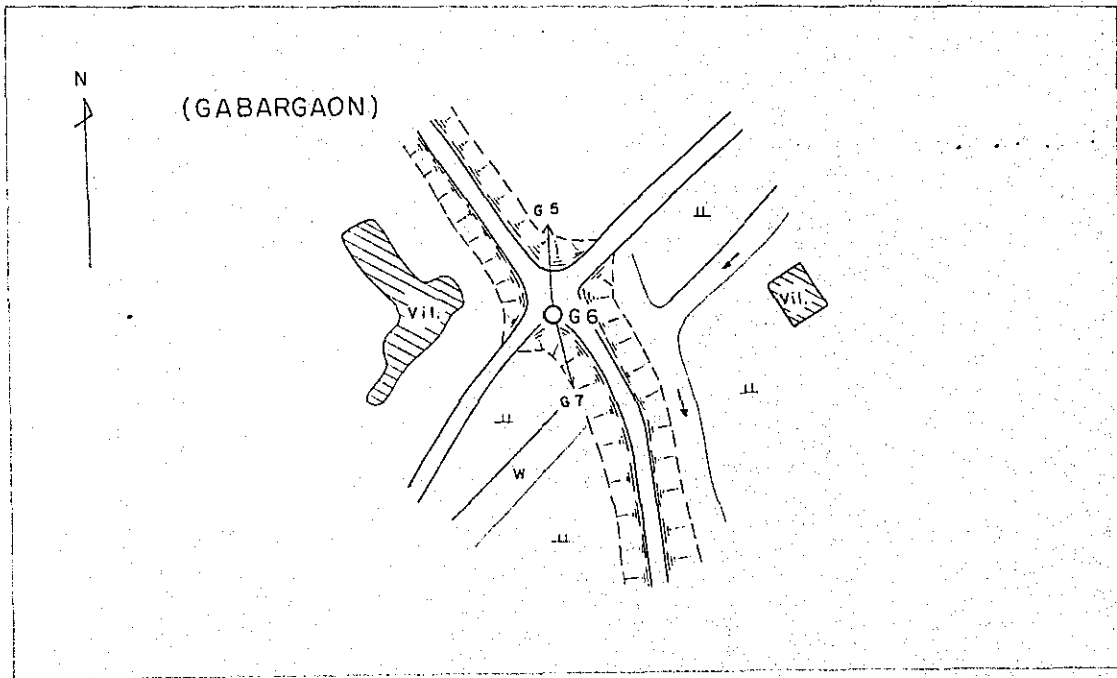
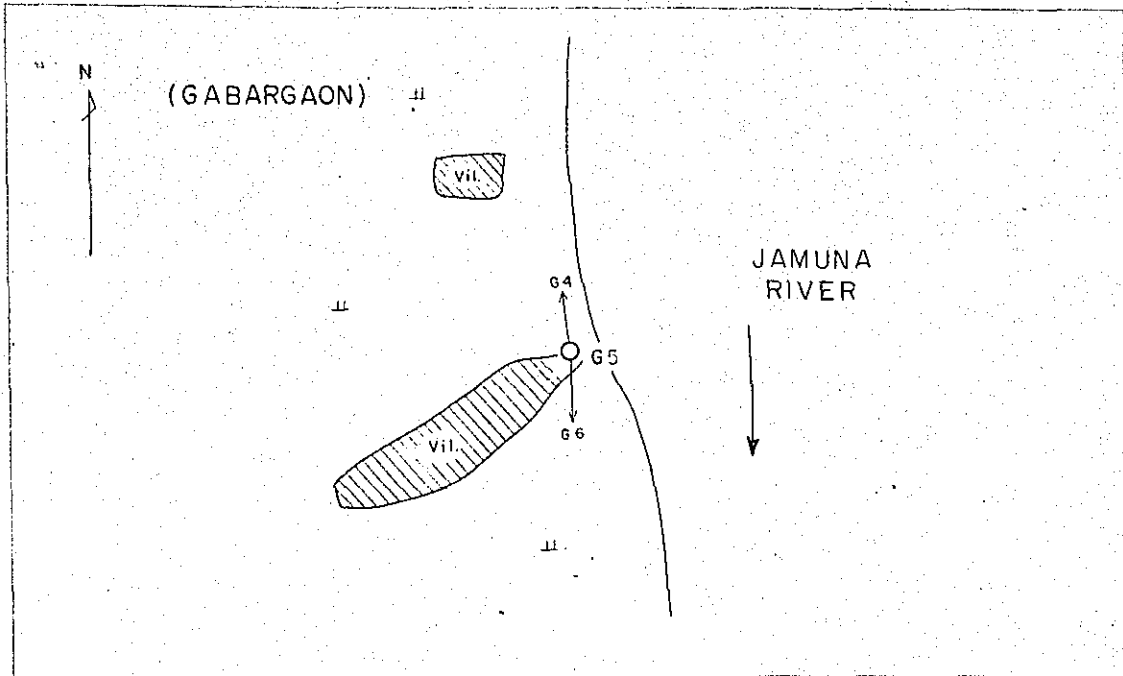


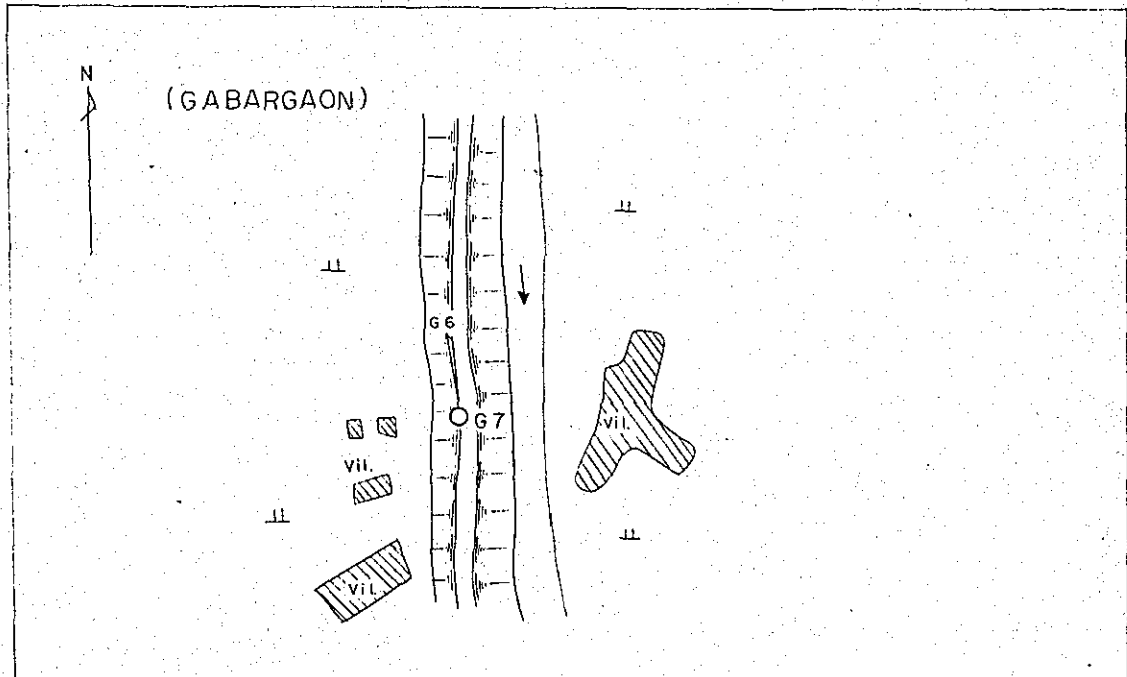












Material - 2

B W A P D A

Water - level Observation

Data

September October, 1973

REGULAR GAUGES FOR 1973

| | RIVER AND GAUGE STATION. | CO-ORDINATES | |
|----|-------------------------------|--------------|-----------|
| | | LATITUDE | LONGITUDE |
| | <u>J A M U N A</u> | | |
| 1 | DAKATIAPARA | - | - |
| 2 | DELUABARI | 25-06-52 | 89-36-41 |
| 3 | PROJAPOTI (PRAJAPATI) | - | - |
| 4 | DIGHALKANDI (DIGALKANDI) | - | - |
| 5 | SUKNAGARI (MUKONGARI) | 24-52-18 | 89-43-22 |
| 6 | MILANPUR (MILONPUR) | 24-49-18 | 89-38-30 |
| 7 | CHARBHURUNGI (CHORBURUNGI) | 24-38-21 | 89-41-09 |
| 8 | KALIPUR | 24-27-33 | 89-49-47 |
| 9 | PURBAMAHONPUR (EAST MOHANPUR) | 24-24-01 | 89-43-30 |
| 10 | NALCHIA (NALSARCHOR) | 24-24-38 | 89-46-40 |
| 11 | AFZALCHAR (CHORRAFZALPUR) | 24-21-49 | 89-46-00 |
| 12 | NAKEFATARCHAR (NAKFATCHOR) | 24-21-40 | 89-44-26 |
| 13 | DELUA (BELKUCHI) | 24-18-00 | 89-43-00 |
| 14 | DIGHALICHAR (DIGULIARCHOR) | 24-15-23 | 89-54-11 |
| 15 | CHANDPUR (CHANPUR) | 24-14-31 | 89-42-13 |
| 16 | KANDIPARA (SHAHPUR) | 24-14-50 | 89-43-12 |
| 17 | BAKTARPUR | 23-58-24 | 89-40-09 |
| 18 | CHARBHARENGA (CHORVARENGA) | 23-59-02 | 89-43-32 |
| 19 | BAMUNDIA (BRHAMODI) | - | - |
| 20 | GONOPOTADIA (GANAPATDIA) | 23-54-57 | 89-40-04 |

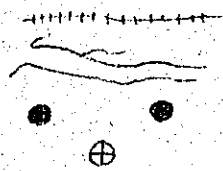
LEGEND

RAILWAYS

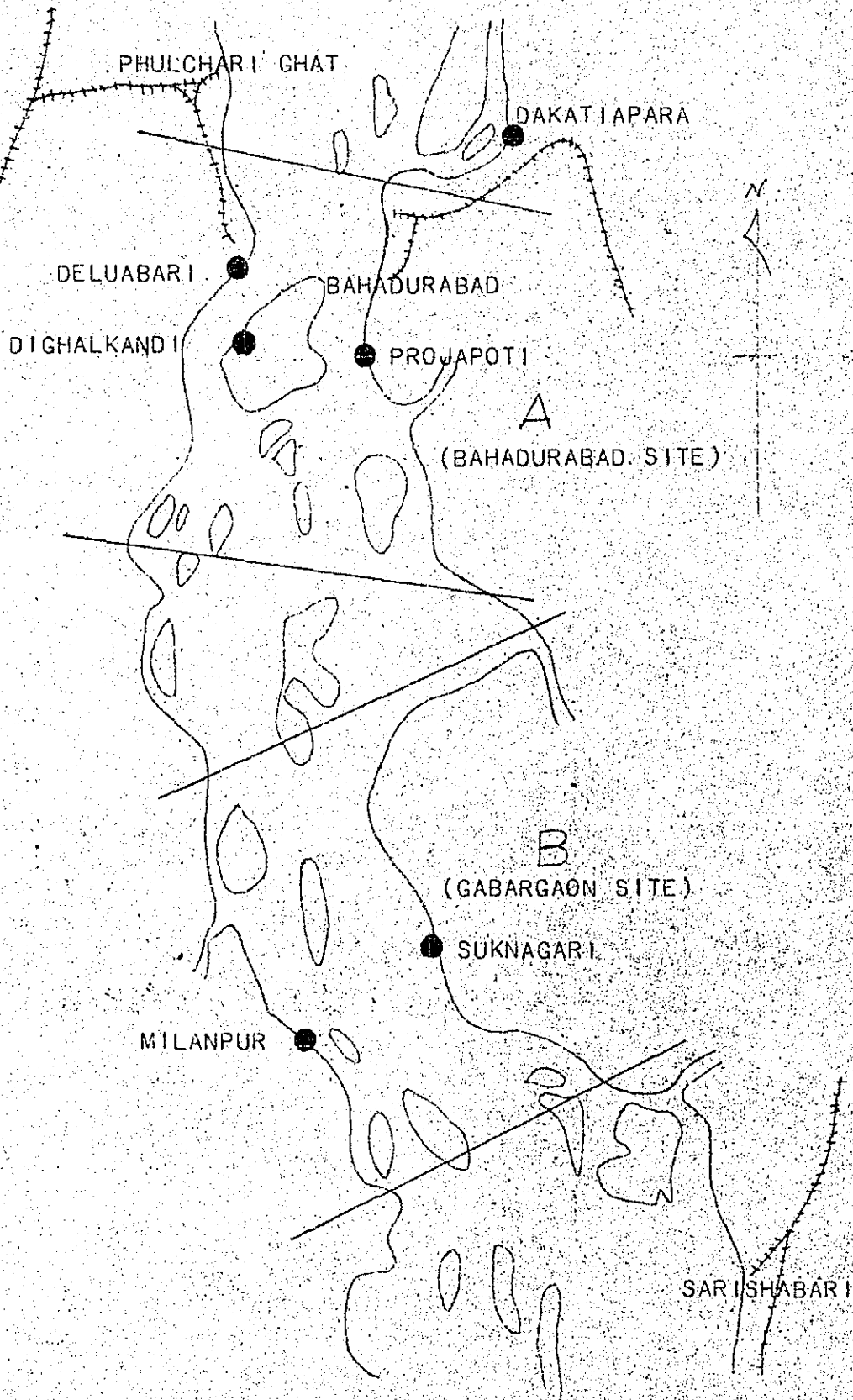
RIVER

GAUGES

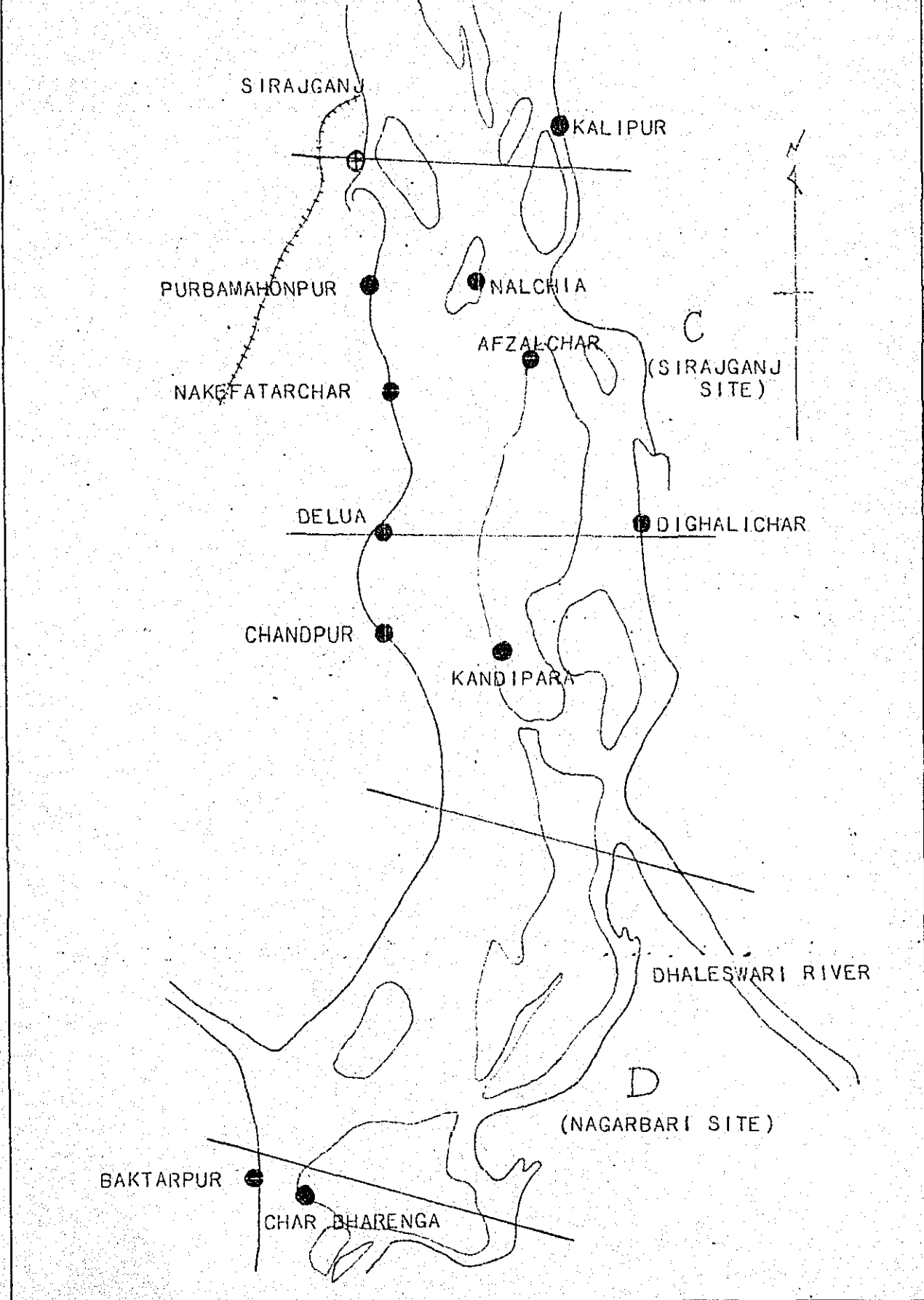
HYDROLOGY GAUGES



LOCATION OF GAUGING STATIONS



LOCATION OF GAUGING STATIONS

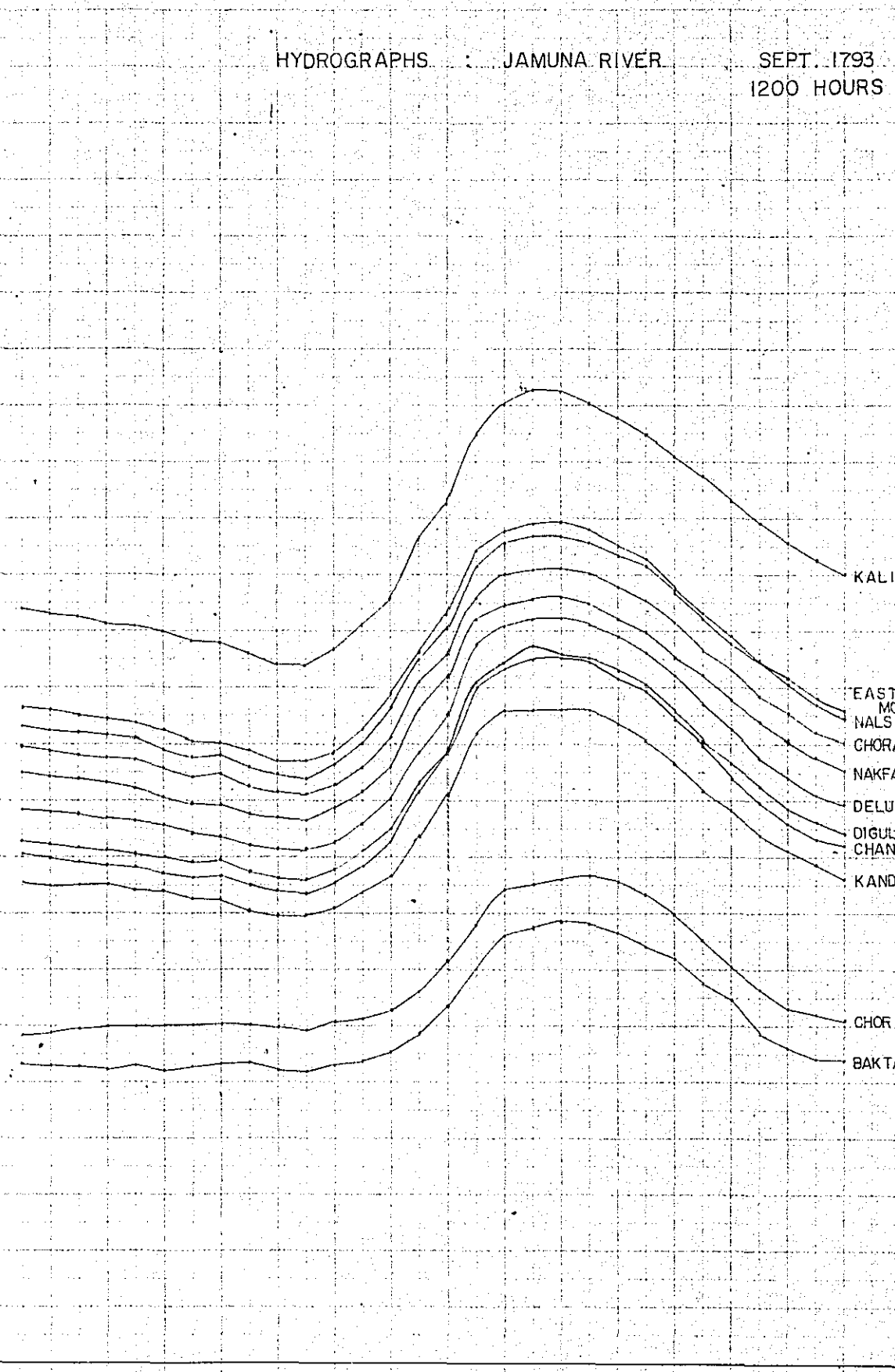


P.W.D.

HYDROGRAPHS : JAMUNA RIVER

SEPT. 1793
1200 HOURS

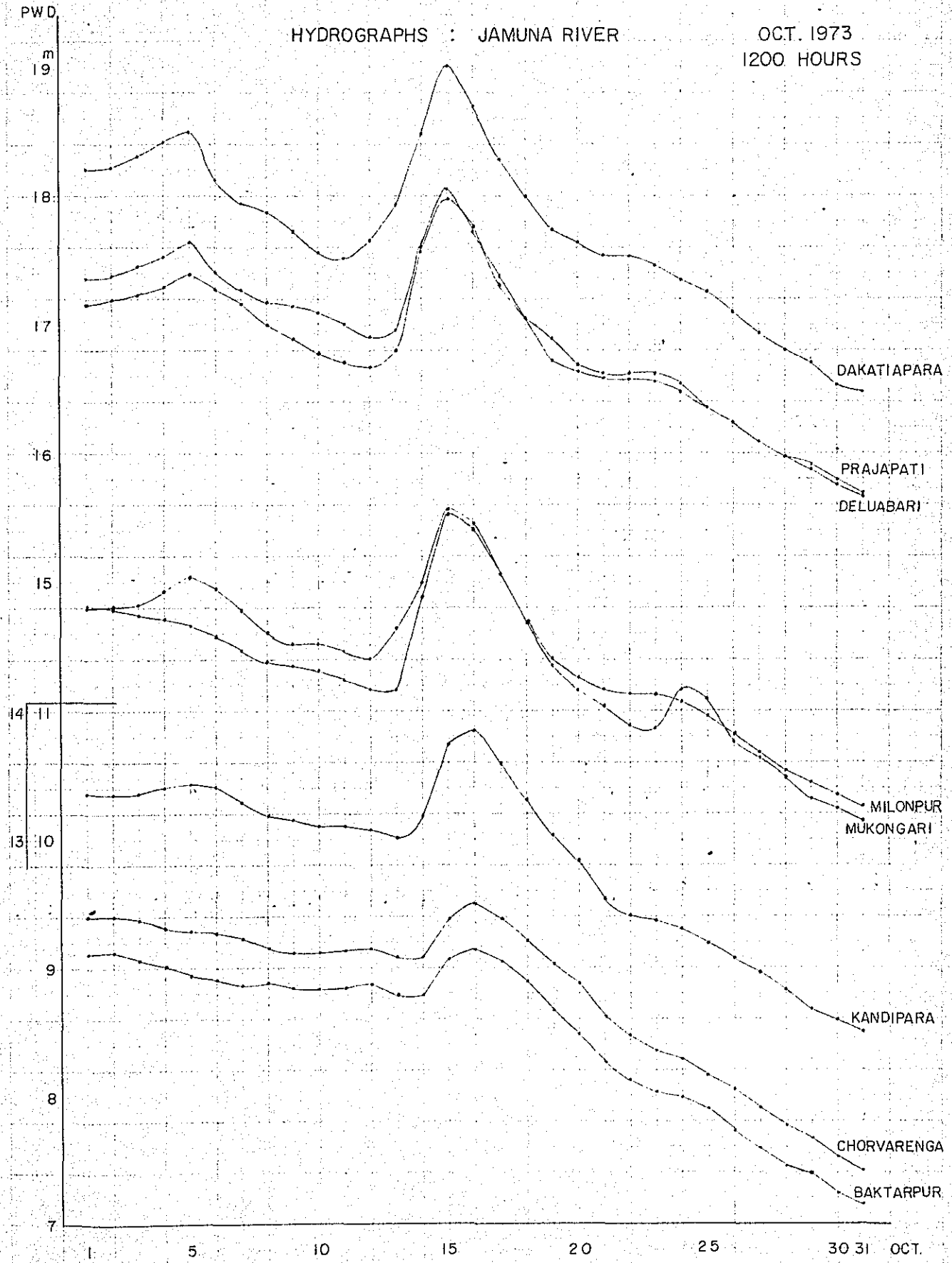
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KALIPUR
EAST MOHANPUR
NALSIARCHAR
CHORAFZALPUR
NAKFATCHOR
DELUA
DIGULARCHOR
CHANPUR
KANDIPARA
CHOR ARENGA
BAKTARPUR

HYDROGRAPHS : JAMUNA RIVER

OCT. 1973
1200 HOURS



PLACE---KALIPUR

SEP! 1973

GAUGE NO. 13

B.M. LEVEL 45.53 FEET

| DATE | 0600 HOURS FEET METRES | 0900 HOURS FEET METRES | 1200 HOURS FEET METRES | 1500 HOURS FEET METRES | 1800 HOURS FEET METRES |
|------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1 | 40.60 12.37 | 40.60 12.37 | 40.55 12.36 | 40.55 12.36 | 40.50 12.34 |
| 2 | 40.45 12.33 | 40.45 12.33 | 40.40 12.31 | 40.40 12.31 | 40.40 12.31 |
| 3 | 40.35 12.30 | 40.35 12.30 | 40.35 12.30 | 40.35 12.30 | 40.35 12.30 |
| 4 | 40.30 12.28 | 40.25 12.27 | 40.20 12.25 | 40.20 12.25 | 40.20 12.25 |
| 5 | 40.15 12.24 | 40.15 12.24 | 40.15 12.24 | 40.10 12.22 | 40.10 12.22 |
| 6 | 40.00 12.19 | 40.00 12.19 | 39.95 12.18 | 39.95 12.18 | 39.90 12.16 |
| 7 | 39.80 12.13 | 39.80 12.13 | 39.75 12.12 | 39.75 12.12 | 39.70 12.10 |
| 8 | 39.80 12.13 | 39.80 12.13 | 39.75 12.12 | 39.75 12.12 | 39.70 12.10 |
| 9 | 39.55 12.05 | 39.55 12.05 | 39.50 12.04 | 39.45 12.02 | 39.40 12.01 |
| 10 | 39.30 11.98 | 39.30 11.98 | 39.25 11.96 | 39.25 11.96 | 39.25 11.96 |
| 11 | 39.25 11.96 | 39.25 11.96 | 39.25 11.96 | 39.30 11.98 | 39.30 11.98 |
| 12 | 39.50 12.04 | 39.55 12.05 | 39.60 12.07 | 39.65 12.09 | 39.70 12.10 |
| 13 | 40.00 12.19 | 40.10 12.22 | 40.20 12.25 | 40.25 12.27 | 40.30 12.28 |
| 14 | 40.55 12.36 | 40.65 12.39 | 40.75 12.42 | 40.95 12.48 | 41.10 12.53 |
| 15 | 41.80 12.74 | 42.00 12.80 | 42.15 12.85 | 42.30 12.89 | 42.40 12.92 |
| 16 | 42.70 13.01 | 42.80 13.05 | 42.90 13.08 | 43.00 13.11 | 43.10 13.14 |
| 17 | 44.40 13.53 | 44.50 13.56 | 44.60 13.59 | 44.70 13.62 | 44.80 13.66 |
| 18 | 45.15 13.76 | 45.20 13.78 | 45.30 13.81 | 45.35 13.82 | 45.40 13.84 |
| 19 | 45.60 13.90 | 45.60 13.90 | 45.60 13.90 | 45.45 13.85 | 45.65 13.91 |
| 20 | 45.65 13.91 | 45.65 13.91 | 45.60 13.90 | 45.60 13.90 | 45.55 13.88 |
| 21 | 45.40 13.84 | 45.35 13.82 | 45.35 13.82 | 45.30 13.81 | 45.25 13.79 |
| 22 | 45.00 13.72 | 45.00 13.72 | 44.95 13.70 | 44.95 13.70 | 44.90 13.70 |
| 23 | 44.70 13.62 | 44.65 13.61 | 44.60 13.59 | 44.55 13.58 | 44.50 13.56 |
| 24 | 44.20 13.47 | 44.15 13.46 | 44.10 13.44 | 44.05 13.43 | 44.00 13.41 |
| 25 | 43.70 13.32 | 43.65 13.30 | 43.60 13.29 | 43.55 13.27 | 43.50 13.26 |
| 26 | 43.15 13.15 | 43.10 13.14 | 43.05 13.12 | 43.00 13.11 | 42.95 13.09 |
| 27 | 42.60 12.98 | 42.55 12.97 | 42.50 12.95 | 42.45 12.94 | 42.40 12.92 |
| 28 | 42.15 12.85 | 42.10 12.82 | 42.05 12.82 | 42.00 12.80 | 41.95 12.79 |
| 29 | 41.80 12.74 | 41.75 12.73 | 41.70 12.71 | 41.65 12.69 | 41.60 12.68 |
| 30 | 41.40 12.62 | 41.40 12.62 | 41.35 12.60 | 41.35 12.60 | 41.30 12.59 |

PLACE---EAST MOHANPUR

SEP. 1973

GAUGE NO. 19-J-6-1

B.M. LEVEL 48.25 FEET

| DATE | 0600 HOURS FEET | 0600 HOURS METRES | 0900 HOURS FEET | 0900 HOURS METRES | 1200 HOURS FEET | 1200 HOURS METRES | 1500 HOURS FEET | 1500 HOURS METRES | 1800 HOURS FEET | 1800 HOURS METRES |
|------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| 1 | 38.25 | 11.66 | 38.25 | 11.66 | 38.25 | 11.66 | 38.20 | 11.64 | 38.20 | 11.64 |
| 2 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 | 38.10 | 11.61 | 38.10 | 11.61 |
| 3 | 38.05 | 11.60 | 38.05 | 11.60 | 38.05 | 11.60 | 38.05 | 11.60 | 38.00 | 11.58 |
| 4 | 37.95 | 11.57 | 37.95 | 11.57 | 37.95 | 11.57 | 37.95 | 11.57 | 37.90 | 11.55 |
| 5 | 37.85 | 11.54 | 37.85 | 11.54 | 37.85 | 11.54 | 37.85 | 11.54 | 37.80 | 11.52 |
| 6 | 37.70 | 11.49 | 37.70 | 11.49 | 37.65 | 11.48 | 37.65 | 11.48 | 37.60 | 11.46 |
| 7 | 37.50 | 11.43 | 37.50 | 11.43 | 37.45 | 11.41 | 37.45 | 11.41 | 37.40 | 11.40 |
| 8 | 37.50 | 11.43 | 37.50 | 11.43 | 37.45 | 11.41 | 37.45 | 11.41 | 37.40 | 11.40 |
| 9 | 37.25 | 11.35 | 37.25 | 11.35 | 37.20 | 11.34 | 37.20 | 11.34 | 37.15 | 11.32 |
| 10 | 37.05 | 11.29 | 37.05 | 11.29 | 37.00 | 11.28 | 37.00 | 11.28 | 37.00 | 11.28 |
| 11 | 37.00 | 11.28 | 37.00 | 11.28 | 37.00 | 11.28 | 37.00 | 11.28 | 37.00 | 11.28 |
| 12 | 37.10 | 11.31 | 37.15 | 11.32 | 37.20 | 11.34 | 37.25 | 11.35 | 37.30 | 11.37 |
| 13 | 37.60 | 11.46 | 37.65 | 11.48 | 37.70 | 11.49 | 37.75 | 11.51 | 37.80 | 11.52 |
| 14 | 38.10 | 11.61 | 38.15 | 11.63 | 38.25 | 11.66 | 38.40 | 11.70 | 38.60 | 11.77 |
| 15 | 39.25 | 11.96 | 39.35 | 11.99 | 39.50 | 12.04 | 39.70 | 12.10 | 39.95 | 12.18 |
| 16 | 40.20 | 12.25 | 40.25 | 12.27 | 40.35 | 12.30 | 40.40 | 12.31 | 40.50 | 12.34 |
| 17 | 41.55 | 12.66 | 41.75 | 12.73 | 41.90 | 12.77 | 41.90 | 12.77 | 41.90 | 12.77 |
| 18 | 42.25 | 12.88 | 42.30 | 12.89 | 42.35 | 12.91 | 42.40 | 12.92 | 42.45 | 12.94 |
| 19 | 42.50 | 12.95 | 42.50 | 12.95 | 42.50 | 12.95 | 42.50 | 12.95 | 42.50 | 12.95 |
| 20 | 42.55 | 12.97 | 42.55 | 12.97 | 42.55 | 12.97 | 42.55 | 12.97 | 42.55 | 12.97 |
| 21 | 42.40 | 12.92 | 42.40 | 12.92 | 42.35 | 12.91 | 42.35 | 12.91 | 42.30 | 12.89 |
| 22 | 42.10 | 12.83 | 42.05 | 12.82 | 42.00 | 12.80 | 41.95 | 12.79 | 41.90 | 12.77 |
| 23 | 41.80 | 12.74 | 41.75 | 12.73 | 41.70 | 12.71 | 41.65 | 12.69 | 41.60 | 12.68 |
| 24 | 41.15 | 12.54 | 41.05 | 12.51 | 40.95 | 12.48 | 40.90 | 12.47 | 40.95 | 12.45 |
| 25 | 40.50 | 12.34 | 40.45 | 12.33 | 40.35 | 12.30 | 40.30 | 12.28 | 40.25 | 12.27 |
| 26 | 40.00 | 12.19 | 39.95 | 12.18 | 39.90 | 12.16 | 39.80 | 12.13 | 39.75 | 12.12 |
| 27 | 39.45 | 12.02 | 39.35 | 11.99 | 39.30 | 11.98 | 39.25 | 11.96 | 39.20 | 11.95 |
| 28 | 38.95 | 11.87 | 38.95 | 11.87 | 38.90 | 11.86 | 38.85 | 11.84 | 38.80 | 11.83 |
| 29 | 38.55 | 11.75 | 38.50 | 11.73 | 38.45 | 11.72 | 38.40 | 11.70 | 38.35 | 11.69 |
| 30 | 38.20 | 11.64 | 38.15 | 11.63 | 38.15 | 11.63 | 38.10 | 11.61 | 38.05 | 11.60 |

PLACE---NALS IARCHAR

SEP. 1973

GAUGE NO. 20 J-6-1 LB

B.M. LEVEL 44.58 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 37.75 | 11.51 | 37.75 | 11.51 | 37.75 | 11.51 | 37.75 | 11.51 | 37.75 | 11.51 |
| 2 | 37.70 | 11.49 | 37.70 | 11.49 | 37.65 | 11.48 | 37.65 | 11.48 | 37.65 | 11.48 |
| 3 | 37.65 | 11.48 | 37.65 | 11.48 | 37.65 | 11.48 | 37.65 | 11.48 | 37.65 | 11.48 |
| 4 | 37.60 | 11.46 | 37.55 | 11.45 | 37.55 | 11.45 | 37.50 | 11.43 | 37.50 | 11.43 |
| 5 | 37.50 | 11.43 | 37.50 | 11.43 | 37.45 | 11.41 | 37.45 | 11.41 | 37.40 | 11.40 |
| 6 | 37.30 | 11.37 | 37.30 | 11.37 | 37.25 | 11.35 | 37.25 | 11.35 | 37.20 | 11.34 |
| 7 | 37.10 | 11.31 | 37.05 | 11.29 | 37.05 | 11.29 | 37.00 | 11.28 | 37.00 | 11.28 |
| 8 | 37.10 | 11.31 | 37.10 | 11.31 | 37.10 | 11.31 | 37.05 | 11.29 | 37.00 | 11.28 |
| 9 | 36.90 | 11.25 | 36.85 | 11.23 | 36.85 | 11.23 | 36.80 | 11.22 | 36.80 | 11.22 |
| 10 | 36.70 | 11.19 | 36.70 | 11.19 | 36.70 | 11.19 | 36.65 | 11.17 | 36.65 | 11.17 |
| 11 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 |
| 12 | 36.80 | 11.22 | 36.85 | 11.23 | 36.90 | 11.25 | 36.95 | 11.26 | 37.00 | 11.28 |
| 13 | 37.30 | 11.37 | 37.35 | 11.38 | 37.40 | 11.40 | 37.50 | 11.43 | 37.60 | 11.46 |
| 14 | 37.90 | 11.55 | 38.05 | 11.60 | 38.20 | 11.64 | 38.35 | 11.69 | 38.45 | 11.72 |
| 15 | 39.00 | 11.89 | 39.15 | 11.93 | 39.35 | 11.99 | 39.50 | 12.04 | 39.65 | 12.09 |
| 16 | 39.95 | 12.18 | 40.00 | 12.19 | 40.10 | 12.22 | 40.20 | 12.25 | 40.30 | 12.28 |
| 17 | 41.30 | 12.59 | 41.40 | 12.62 | 41.50 | 12.65 | 41.60 | 12.68 | 41.70 | 12.71 |
| 18 | 42.00 | 12.80 | 42.05 | 12.82 | 42.05 | 12.82 | 42.10 | 12.83 | 42.15 | 12.85 |
| 19 | 42.20 | 12.86 | 42.20 | 12.86 | 42.20 | 12.86 | 42.20 | 12.86 | 42.20 | 12.86 |
| 20 | 42.20 | 12.86 | 42.20 | 12.86 | 42.20 | 12.86 | 42.20 | 12.86 | 42.15 | 12.85 |
| 21 | 42.10 | 12.83 | 42.10 | 12.83 | 42.05 | 12.82 | 42.05 | 12.82 | 42.00 | 12.80 |
| 22 | 41.80 | 12.74 | 41.80 | 12.74 | 41.75 | 12.73 | 41.75 | 12.73 | 41.70 | 12.71 |
| 23 | 41.55 | 12.66 | 41.50 | 12.65 | 41.50 | 12.65 | 41.45 | 12.63 | 41.40 | 12.62 |
| 24 | 41.00 | 12.50 | 40.95 | 12.48 | 40.85 | 12.45 | 40.80 | 12.44 | 40.70 | 12.41 |
| 25 | 40.40 | 12.31 | 40.35 | 12.30 | 40.25 | 12.27 | 40.20 | 12.25 | 40.10 | 12.22 |
| 26 | 39.85 | 12.15 | 39.80 | 12.13 | 39.70 | 12.10 | 39.65 | 12.09 | 39.60 | 12.07 |
| 27 | 39.40 | 12.01 | 39.35 | 11.99 | 39.39 | 11.98 | 39.20 | 11.95 | 39.10 | 11.92 |
| 28 | 38.90 | 11.86 | 38.85 | 11.84 | 38.75 | 11.81 | 38.70 | 11.80 | 38.65 | 11.78 |
| 29 | 38.40 | 11.70 | 38.35 | 11.69 | 38.30 | 11.67 | 38.25 | 11.66 | 38.20 | 11.64 |
| 30 | 38.05 | 11.60 | 38.00 | 11.58 | 37.95 | 11.57 | 37.90 | 11.55 | 37.90 | 11.55 |

PLACE --- CHOR AFZALPUR

SEP. 1973

GAUGE NO. 23J L.D.

B.M. LEVEL 44.31 FEET

| DATE | 0600 HOURS FEET | 0600 HOURS METRES | 0900 HOURS FEET | 0900 HOURS METRES | 1200 HOURS FEET | 1200 HOURS METRES | 1500 HOURS FEET | 1500 HOURS METRES | 1800 HOURS FEET | 1800 HOURS METRES |
|------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| 1 | 37.30 | 11.37 | 37.30 | 11.37 | 37.30 | 11.37 | 37.25 | 11.35 | 37.25 | 11.35 |
| 2 | 37.25 | 11.35 | 37.25 | 11.35 | 37.25 | 11.35 | 37.25 | 11.35 | 37.25 | 11.35 |
| 3 | 37.20 | 11.34 | 37.20 | 11.34 | 37.15 | 11.32 | 37.15 | 11.32 | 37.15 | 11.32 |
| 4 | 37.10 | 11.34 | 37.10 | 11.31 | 37.05 | 11.29 | 37.05 | 11.29 | 37.05 | 11.29 |
| 5 | 37.00 | 11.28 | 37.00 | 11.28 | 37.00 | 11.28 | 36.95 | 11.26 | 36.95 | 11.26 |
| 6 | 36.85 | 11.23 | 36.84 | 11.23 | 36.80 | 11.22 | 36.80 | 11.22 | 36.75 | 11.20 |
| 7 | 36.65 | 11.17 | 36.65 | 11.17 | 36.60 | 11.16 | 36.60 | 11.16 | 36.55 | 11.14 |
| 8 | 36.70 | 11.19 | 36.70 | 11.19 | 36.65 | 11.17 | 36.50 | 11.13 | 36.55 | 11.14 |
| 9 | 36.45 | 11.11 | 36.45 | 11.11 | 36.40 | 11.09 | 36.40 | 11.09 | 36.35 | 11.08 |
| 10 | 36.25 | 11.05 | 36.25 | 11.05 | 36.25 | 11.05 | 36.25 | 11.05 | 36.25 | 11.05 |
| 11 | 36.20 | 11.03 | 36.20 | 11.03 | 36.20 | 11.03 | 36.20 | 11.03 | 36.25 | 11.05 |
| 12 | 36.35 | 11.08 | 36.40 | 11.09 | 36.44 | 11.11 | 36.50 | 11.13 | 36.55 | 11.14 |
| 13 | 36.75 | 11.20 | 35.80 | 11.22 | 36.84 | 11.23 | 36.90 | 11.25 | 36.95 | 11.26 |
| 14 | 37.35 | 11.38 | 37.45 | 11.41 | 37.55 | 11.45 | 37.70 | 11.49 | 37.85 | 11.54 |
| 15 | 38.55 | 11.75 | 38.70 | 11.80 | 38.85 | 11.84 | 38.95 | 11.87 | 39.05 | 11.90 |
| 16 | 39.25 | 11.96 | 39.55 | 12.05 | 39.45 | 12.02 | 39.55 | 12.05 | 39.65 | 12.09 |
| 17 | 40.55 | 12.36 | 40.70 | 12.41 | 40.80 | 12.44 | 40.90 | 12.47 | 40.95 | 12.48 |
| 18 | 41.25 | 12.57 | 41.25 | 12.57 | 41.35 | 12.60 | 41.35 | 12.60 | 41.45 | 12.63 |
| 19 | 41.45 | 12.63 | 41.45 | 12.63 | 41.45 | 12.63 | 41.45 | 12.63 | 41.50 | 12.65 |
| 20 | 41.50 | 12.65 | 41.50 | 12.65 | 41.50 | 12.65 | 41.50 | 12.65 | 41.50 | 12.65 |
| 21 | 41.45 | 12.63 | 41.40 | 12.62 | 41.35 | 12.60 | 41.35 | 12.60 | 41.30 | 12.59 |
| 22 | 41.10 | 12.53 | 41.05 | 12.51 | 41.05 | 12.51 | 41.00 | 12.50 | 41.00 | 12.50 |
| 23 | 40.80 | 12.44 | 40.75 | 12.42 | 40.70 | 12.41 | 40.70 | 12.41 | 40.65 | 12.39 |
| 24 | 40.35 | 12.30 | 40.30 | 12.28 | 40.20 | 12.25 | 40.10 | 12.22 | 40.05 | 12.21 |
| 25 | 39.75 | 12.12 | 39.65 | 12.09 | 39.55 | 12.05 | 39.45 | 12.02 | 39.40 | 12.01 |
| 26 | 39.20 | 11.95 | 39.15 | 11.93 | 39.10 | 11.92 | 39.05 | 11.90 | 38.95 | 11.87 |
| 27 | 38.65 | 11.78 | 38.60 | 11.77 | 38.50 | 11.73 | 38.45 | 11.72 | 38.40 | 11.70 |
| 28 | 38.15 | 11.63 | 38.15 | 11.63 | 38.10 | 11.61 | 38.05 | 11.60 | 38.00 | 11.58 |
| 29 | 37.80 | 11.52 | 37.75 | 11.51 | 37.65 | 11.48 | 37.60 | 11.46 | 37.55 | 11.45 |
| 30 | 37.45 | 11.41 | 37.40 | 11.40 | 37.40 | 11.40 | 37.35 | 11.38 | 37.30 | 11.37 |

PLACE --- NAKFATCHOR

SEP. 1973

GAUGE NO. 22 JRD

B.M. LEVEL 39.02 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 36.70 | 11.19 | 36.70 | 11.19 | 36.70 | 11.19 | 36.70 | 11.19 | 36.65 | 11.17 |
| 2 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 | 36.60 | 11.16 |
| 3 | 36.55 | 11.14 | 36.55 | 11.14 | 36.55 | 11.14 | 36.55 | 11.14 | 36.50 | 11.13 |
| 4 | 36.50 | 11.13 | 36.45 | 11.11 | 36.45 | 11.11 | 36.40 | 11.09 | 36.40 | 11.09 |
| 5 | 36.35 | 11.08 | 36.35 | 11.08 | 36.35 | 11.08 | 36.30 | 11.06 | 36.30 | 11.06 |
| 6 | 36.20 | 11.03 | 36.20 | 11.03 | 36.15 | 11.02 | 36.15 | 11.02 | 36.10 | 11.00 |
| 7 | 36.00 | 10.97 | 36.00 | 10.97 | 36.00 | 10.97 | 36.00 | 10.97 | 35.95 | 10.96 |
| 8 | 36.10 | 11.00 | 36.05 | 10.99 | 36.00 | 10.97 | 36.00 | 10.97 | 35.95 | 10.96 |
| 9 | 35.80 | 10.91 | 35.80 | 10.91 | 35.75 | 10.90 | 35.75 | 10.90 | 35.70 | 10.88 |
| 10 | 35.65 | 10.87 | 35.65 | 10.87 | 35.65 | 10.87 | 35.65 | 10.87 | 35.60 | 10.85 |
| 11 | 35.60 | 10.85 | 35.60 | 10.85 | 35.60 | 10.85 | 35.60 | 10.85 | 35.60 | 10.85 |
| 12 | 35.75 | 10.90 | 35.80 | 10.91 | 35.85 | 10.93 | 35.90 | 10.94 | 35.95 | 10.96 |
| 13 | 36.20 | 11.03 | 36.25 | 11.05 | 36.30 | 11.06 | 36.35 | 11.08 | 36.40 | 11.09 |
| 14 | 36.70 | 11.19 | 36.75 | 11.20 | 36.85 | 11.23 | 37.00 | 11.28 | 37.25 | 11.35 |
| 15 | 37.25 | 11.35 | 37.90 | 11.55 | 38.20 | 11.64 | 38.35 | 11.69 | 38.45 | 11.72 |
| 16 | 38.70 | 11.80 | 38.80 | 11.83 | 38.90 | 11.86 | 38.95 | 11.87 | 39.00 | 11.89 |
| 17 | 40.00 | 12.19 | 40.15 | 12.24 | 40.25 | 12.27 | 40.25 | 12.27 | 40.30 | 12.28 |
| 18 | 40.60 | 12.37 | 40.60 | 12.37 | 40.60 | 12.37 | 40.65 | 12.39 | 40.65 | 12.39 |
| 19 | 40.70 | 12.41 | 40.75 | 12.42 | 40.75 | 12.42 | 40.75 | 12.42 | 40.75 | 12.42 |
| 20 | 40.80 | 12.44 | 40.80 | 12.44 | 40.80 | 12.44 | 40.80 | 12.44 | 40.80 | 12.44 |
| 21 | 40.70 | 12.41 | 40.70 | 12.41 | 40.65 | 12.39 | 40.65 | 12.39 | 40.60 | 12.37 |
| 22 | 40.40 | 12.31 | 40.35 | 12.30 | 40.30 | 12.28 | 40.25 | 12.27 | 40.20 | 12.25 |
| 23 | 40.10 | 12.22 | 40.05 | 12.21 | 40.00 | 12.19 | 39.95 | 12.18 | 39.90 | 12.16 |
| 24 | 39.60 | 12.07 | 39.55 | 12.05 | 39.45 | 12.02 | 39.40 | 12.01 | 39.35 | 11.99 |
| 25 | 39.05 | 11.90 | 38.95 | 11.87 | 38.90 | 11.86 | 38.85 | 11.84 | 38.80 | 11.83 |
| 26 | 38.55 | 11.75 | 38.50 | 11.73 | 38.40 | 11.70 | 38.35 | 11.69 | 38.25 | 11.66 |
| 27 | 38.00 | 11.58 | 37.95 | 11.57 | 37.85 | 11.54 | 37.80 | 11.52 | 37.70 | 11.49 |
| 28 | 37.50 | 11.43 | 37.50 | 11.43 | 37.45 | 11.41 | 37.40 | 11.40 | 37.35 | 11.38 |
| 29 | 37.15 | 11.32 | 37.10 | 11.31 | 37.05 | 11.29 | 37.00 | 11.28 | 36.95 | 11.26 |
| 30 | 36.80 | 11.22 | 36.80 | 11.22 | 36.75 | 11.20 | 36.75 | 11.20 | 36.70 | 11.19 |

PLACE---DELUA

SEP. 1973

GAUGE NO. 25 JR

B.M. LEVEL 41.62 FEET

| DATE | 0600 HOURS FEET METRES | 0900 HOURS FEET METRES | 1200 HOURS FEET METRES | 1500 HOURS FEET METRES | 1800 HOURS FEET METRES |
|------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1 | 35.85 10.93 | 35.85 10.93 | 35.85 10.93 | 35.85 10.93 | 35.85 10.93 |
| 2 | 35.80 10.91 | 35.80 10.91 | 35.75 10.90 | 35.75 10.90 | 35.85 10.93 |
| 3 | 35.75 10.90 | 35.75 10.90 | 35.75 10.90 | 35.75 10.90 | 35.75 10.90 |
| 4 | 35.65 10.87 | 35.65 10.87 | 35.65 10.87 | 35.60 10.85 | 35.60 10.85 |
| 5 | 35.60 10.85 | 35.60 10.85 | 35.60 10.85 | 35.55 10.84 | 35.55 10.84 |
| 6 | 35.50 10.82 | 35.50 10.82 | 35.50 10.82 | 35.45 10.81 | 35.45 10.81 |
| 7 | 35.35 10.77 | 35.35 10.77 | 35.35 10.77 | 35 10.77 | 35.30 10.76 |
| 8 | 35.25 10.74 | 35.25 10.74 | 35.25 10.74 | 35.25 10.74 | 35.20 10.73 |
| 9 | 35.05 10.68 | 35.05 10.68 | 35.05 10.68 | 35.00 10.67 | 35.00 10.67 |
| 10 | 34.95 10.65 | 34.95 10.65 | 34.95 10.65 | 34.95 10.65 | 34.90 10.64 |
| 11 | 34.90 10.64 | 34.90 10.64 | 34.90 10.64 | 34.95 10.65 | 34.95 10.65 |
| 12 | 35.05 10.68 | 35.10 10.70 | 35.10 10.70 | 35.15 10.71 | 35.20 10.73 |
| 13 | 35.40 10.79 | 35.45 10.81 | 35.55 10.84 | 35.40 10.79 | 35.45 10.81 |
| 14 | 35.85 10.93 | 35.95 10.96 | 36.05 10.99 | 36.10 11.00 | 36.15 11.02 |
| 15 | 36.85 11.23 | 37.05 11.29 | 37.15 11.32 | 37.35 11.38 | 37.55 11.45 |
| 16 | 37.85 11.54 | 37.95 11.57 | 38.05 11.60 | 38.15 11.63 | 38.25 11.66 |
| 17 | 39.35 11.99 | 39.55 12.05 | 39.70 12.10 | 39.70 12.10 | 39.75 12.12 |
| 18 | 40.10 12.22 | 40.10 12.22 | 40.10 12.22 | 40.15 12.24 | 40.15 12.24 |
| 19 | 40.25 12.27 | 40.25 12.27 | 40.25 12.27 | 40.30 12.28 | 40.30 12.28 |
| 20 | 40.30 12.28 | 40.30 12.28 | 40.30 12.28 | 40.30 12.28 | 40.25 12.27 |
| 21 | 40.20 12.25 | 40.20 12.25 | 40.15 12.24 | 40.15 12.24 | 40.10 12.22 |
| 22 | 39.95 12.18 | 39.90 12.16 | 39.90 12.16 | 39.85 12.15 | 39.80 12.13 |
| 23 | 39.60 12.07 | 39.55 12.05 | 39.50 12.04 | 39.45 12.02 | 39.40 12.01 |
| 24 | 39.05 11.90 | 38.95 11.87 | 38.90 11.86 | 38.80 11.83 | 38.75 11.81 |
| 25 | 38.40 11.70 | 38.30 11.67 | 38.25 11.66 | 38.15 11.63 | 38.10 11.61 |
| 26 | 37.75 11.51 | 37.70 11.49 | 37.65 11.48 | 37.55 11.45 | 37.50 11.43 |
| 27 | 37.20 11.34 | 37.10 11.31 | 37.00 11.28 | 37.00 11.28 | 36.90 11.25 |
| 28 | 36.65 11.17 | 36.60 11.16 | 36.55 11.14 | 36.55 11.14 | 36.50 11.13 |
| 29 | 36.30 11.06 | 36.25 11.05 | 36.20 11.03 | 36.15 11.02 | 36.10 11.00 |
| 30 | 36.10 11.00 | 36.05 10.99 | 36.00 10.97 | 35.95 10.96 | 35.95 10.96 |

PLACE --- DIGULI ARCHOR

SEP. 1973

GAUGE NO. 26 JL

B.M. LEVEL 40.18 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 35.15 | 10.71 | 35.15 | 10.70 | 35.10 | 10.70 | 35.10 | 10.70 | 35.10 | 10.70 |
| 2 | 35.05 | 10.68 | 35.05 | 10.68 | 35.05 | 10.68 | 35.00 | 10.67 | 35.00 | 10.67 |
| 3 | 35.00 | 10.67 | 35.00 | 10.67 | 34.95 | 10.65 | 34.95 | 10.65 | 34.95 | 10.65 |
| 4 | 34.95 | 10.65 | 34.95 | 10.65 | 34.95 | 10.65 | 34.95 | 10.65 | 34.90 | 10.64 |
| 5 | 34.65 | 10.56 | 34.65 | 10.56 | 34.85 | 10.62 | 34.85 | 10.62 | 34.85 | 10.62 |
| 6 | 34.75 | 10.59 | 34.75 | 10.59 | 34.75 | 10.59 | 34.70 | 10.58 | 34.70 | 10.58 |
| 7 | 34.65 | 10.56 | 34.65 | 10.56 | 34.60 | 10.55 | 34.60 | 10.55 | 34.55 | 10.53 |
| 8 | 34.70 | 10.58 | 34.70 | 10.58 | 34.65 | 10.56 | 34.60 | 10.55 | 34.55 | 10.53 |
| 9 | 34.45 | 10.50 | 34.45 | 10.50 | 34.40 | 10.49 | 34.40 | 10.49 | 34.35 | 10.47 |
| 10 | 34.30 | 10.45 | 34.30 | 10.45 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 |
| 11 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 |
| 12 | 34.35 | 10.47 | 34.40 | 10.49 | 34.45 | 10.50 | 34.50 | 10.52 | 34.55 | 10.53 |
| 13 | 34.75 | 10.59 | 34.80 | 10.61 | 34.85 | 10.62 | 34.90 | 10.64 | 34.95 | 10.65 |
| 14 | 35.20 | 10.73 | 35.25 | 10.74 | 35.34 | 10.77 | 34.45 | 10.81 | 35.55 | 10.84 |
| 15 | 36.05 | 10.99 | 36.30 | 11.06 | 36.50 | 11.13 | 36.65 | 11.17 | 36.75 | 11.20 |
| 16 | 37.00 | 11.28 | 37.05 | 11.29 | 37.15 | 11.32 | 37.25 | 11.35 | 37.35 | 11.38 |
| 17 | 38.25 | 11.66 | 38.45 | 11.72 | 38.70 | 11.80 | 38.85 | 11.84 | 38.95 | 11.87 |
| 18 | 39.05 | 11.90 | 39.15 | 11.93 | 39.20 | 11.95 | 39.25 | 11.96 | 39.25 | 11.96 |
| 19 | 39.25 | 11.99 | 39.35 | 11.99 | 39.35 | 11.99 | 39.35 | 11.99 | 39.40 | 12.01 |
| 20 | 39.45 | 12.02 | 39.45 | 12.02 | 39.45 | 12.02 | 39.45 | 12.02 | 39.45 | 12.02 |
| 21 | 39.35 | 11.99 | 39.35 | 11.99 | 39.30 | 11.98 | 39.25 | 11.96 | 39.20 | 11.95 |
| 22 | 38.95 | 11.87 | 38.95 | 11.87 | 38.90 | 11.86 | 38.90 | 11.86 | 38.85 | 11.84 |
| 23 | 38.65 | 11.78 | 38.65 | 11.78 | 38.60 | 11.77 | 38.55 | 11.75 | 38.55 | 11.75 |
| 24 | 38.10 | 11.61 | 38.05 | 11.60 | 38.00 | 11.58 | 37.95 | 11.57 | 37.90 | 11.55 |
| 25 | 37.55 | 11.45 | 37.45 | 11.41 | 37.35 | 11.38 | 37.30 | 11.37 | 37.25 | 11.35 |
| 26 | 37.00 | 11.28 | 36.95 | 11.26 | 36.90 | 11.25 | 36.85 | 11.23 | 36.75 | 11.20 |
| 27 | 36.45 | 11.11 | 36.40 | 11.09 | 36.35 | 11.08 | 36.30 | 11.06 | 36.25 | 11.05 |
| 28 | 36.00 | 10.97 | 35.95 | 10.96 | 35.90 | 10.94 | 35.90 | 10.94 | 35.85 | 10.93 |
| 29 | 35.60 | 10.85 | 35.55 | 10.84 | 35.55 | 10.84 | 35.50 | 10.82 | 35.50 | 10.82 |
| 30 | 35.40 | 10.79 | 35.35 | 10.77 | 35.30 | 10.76 | 35.26 | 10.75 | 35.20 | 10.73 |

PLACE---CHANPUR

SEP. 1973

GAUGE NO.27 J-5 RB

B.M. LEVEL 41.79 FEET

| DATE | 0600 HOURS FEET METRES | 0900 HOURS FEET METRES | 1200 HOURS FEET METRES | 1500 HOURS FEET METRES | 1800 HOURS FEET METRES |
|------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1 | 34.80 10.61 | 34.80 10.61 | 34.80 10.61 | 34.75 10.59 | 34.75 10.59 |
| 2 | 34.70 10.58 | 34.70 10.58 | 34.70 10.58 | 34.70 10.58 | 34.70 10.58 |
| 3 | 34.65 10.56 | 34.65 10.56 | 34.65 10.56 | 34.65 10.56 | 34.65 10.56 |
| 4 | 34.60 10.55 | 34.60 10.55 | 34.55 10.53 | 34.55 10.53 | 34.50 10.52 |
| 5 | 34.50 10.52 | 34.50 10.52 | 34.50 10.52 | 34.50 10.52 | 34.50 10.52 |
| 6 | 34.40 10.49 | 34.40 10.49 | 34.35 10.47 | 34.35 10.47 | 34.30 10.45 |
| 7 | 34.25 10.44 | 34.25 10.44 | 34.25 10.44 | 34.20 10.42 | 34.20 10.42 |
| 8 | 34.35 10.47 | 34.35 10.47 | 34.30 10.45 | 34.25 10.44 | 34.20 10.42 |
| 9 | 34.10 10.39 | 34.10 10.39 | 34.10 10.39 | 34.05 10.38 | 34.05 10.38 |
| 10 | 34.00 10.36 | 33.95 10.35 | 33.95 10.35 | 33.95 10.35 | 33.95 10.35 |
| 11 | 33.90 10.33 | 33.90 10.33 | 33.90 10.33 | 33.95 10.35 | 33.95 10.35 |
| 12 | 34.05 10.38 | 34.10 10.39 | 34.15 10.41 | 34.20 10.42 | 34.25 10.44 |
| 13 | 34.45 10.50 | 34.50 10.52 | 34.55 10.53 | 34.60 10.55 | 34.70 10.58 |
| 14 | 34.90 10.64 | 35.00 10.67 | 35.10 10.70 | 35.20 10.73 | 35.35 10.77 |
| 15 | 35.80 10.91 | 36.05 10.99 | 36.30 11.06 | 36.45 11.11 | 36.60 11.16 |
| 16 | 36.90 11.25 | 37.00 11.28 | 37.10 11.31 | 37.20 11.34 | 37.30 11.37 |
| 17 | 38.10 11.61 | 38.40 11.70 | 38.80 11.83 | 38.80 11.83 | 38.80 11.83 |
| 18 | 39.10 11.92 | 39.15 11.93 | 39.20 11.95 | 39.25 11.96 | 39.25 11.96 |
| 19 | 39.35 11.99 | 39.35 11.99 | 39.67 12.09 | 39.40 12.01 | 39.45 12.02 |
| 20 | 39.45 12.02 | 39.45 12.02 | 39.45 12.02 | 39.45 12.02 | 39.45 12.02 |
| 21 | 39.40 12.01 | 39.35 11.99 | 39.35 11.99 | 39.30 11.98 | 39.30 11.98 |
| 22 | 39.10 11.92 | 39.05 11.90 | 39.05 11.90 | 39.00 11.89 | 39.00 11.89 |
| 23 | 38.80 11.83 | 38.75 11.81 | 38.70 11.80 | 38.65 11.78 | 38.60 11.77 |
| 24 | 38.25 11.66 | 38.20 11.64 | 38.10 11.61 | 38.05 11.60 | 38.00 11.52 |
| 25 | 37.60 11.46 | 37.50 11.43 | 37.40 11.40 | 37.30 11.37 | 37.15 11.32 |
| 26 | 36.85 11.23 | 36.70 11.19 | 36.55 11.14 | 36.50 11.13 | 36.40 11.09 |
| 27 | 36.10 11.00 | 36.05 10.99 | 35.95 10.96 | 35.90 10.94 | 35.85 10.93 |
| 28 | 35.60 10.85 | 35.55 10.84 | 35.50 10.82 | 35.45 10.81 | 35.40 10.79 |
| 29 | 35.25 10.74 | 35.20 10.73 | 35.15 10.71 | 35.10 10.70 | 35.05 10.68 |
| 30 | 34.95 10.65 | 35.00 10.67 | 35.00 10.67 | 34.95 10.65 | 34.85 10.62 |

PLACE --- KANDIPARA

SEP. 1973

GAUGE NO. 28-J-5 LB

B.M. LEVEL 42.23 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 34.20 | 10.42 | 34.20 | 10.42 | 34.10 | 10.39 | 34.15 | 10.41 | 34.15 | 10.41 |
| 2 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 |
| 3 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 |
| 4 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 | 34.10 | 10.39 |
| 5 | 34.00 | 10.36 | 34.00 | 10.36 | 34.00 | 10.36 | 34.00 | 10.36 | 33.95 | 10.35 |
| 6 | 33.95 | 10.35 | 33.95 | 10.35 | 33.95 | 10.35 | 33.90 | 10.33 | 33.85 | 10.32 |
| 7 | 33.80 | 10.30 | 33.80 | 10.30 | 33.75 | 10.29 | 33.75 | 10.29 | 33.70 | 10.27 |
| 8 | 33.80 | 10.30 | 33.80 | 10.30 | 33.75 | 10.29 | 33.75 | 10.29 | 33.70 | 10.27 |
| 9 | 33.55 | 10.23 | 33.45 | 10.20 | 33.50 | 10.21 | 33.50 | 10.21 | 33.45 | 10.20 |
| 10 | 33.40 | 10.18 | 33.40 | 10.18 | 33.40 | 10.18 | 33.40 | 10.18 | 33.35 | 10.17 |
| 11 | 33.35 | 10.17 | 33.35 | 10.17 | 33.35 | 10.17 | 33.35 | 10.17 | 33.35 | 10.17 |
| 12 | 33.45 | 10.20 | 33.50 | 10.21 | 33.55 | 10.23 | 33.60 | 10.24 | 33.65 | 10.26 |
| 13 | 33.85 | 10.32 | 33.90 | 10.33 | 33.95 | 10.35 | 34.00 | 10.35 | 34.05 | 10.38 |
| 14 | 34.20 | 10.42 | 34.25 | 10.44 | 34.30 | 10.45 | 34.35 | 10.47 | 34.40 | 10.49 |
| 15 | 35.00 | 10.67 | 35.10 | 10.70 | 35.20 | 10.73 | 35.25 | 10.74 | 35.35 | 10.77 |
| 16 | 36.00 | 10.97 | 36.10 | 11.00 | 36.20 | 11.03 | 36.30 | 11.06 | 36.40 | 11.09 |
| 17 | 37.25 | 11.35 | 37.45 | 11.41 | 37.65 | 11.48 | 37.75 | 11.51 | 37.80 | 11.52 |
| 18 | 38.10 | 11.61 | 38.10 | 11.61 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 |
| 19 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 |
| 20 | 38.20 | 11.64 | 38.20 | 11.64 | 38.20 | 11.64 | 38.20 | 11.64 | 38.20 | 11.64 |
| 21 | 38.15 | 11.63 | 38.15 | 11.63 | 38.15 | 11.63 | 38.10 | 11.61 | 38.05 | 11.60 |
| 22 | 37.85 | 11.54 | 37.85 | 11.54 | 37.80 | 11.52 | 37.80 | 11.52 | 37.75 | 11.51 |
| 23 | 37.55 | 11.45 | 37.50 | 11.43 | 37.45 | 11.41 | 37.35 | 11.38 | 37.30 | 11.37 |
| 24 | 37.00 | 11.28 | 36.95 | 11.26 | 36.90 | 11.25 | 36.85 | 11.23 | 36.80 | 11.22 |
| 25 | 36.40 | 11.09 | 36.35 | 11.08 | 36.30 | 11.06 | 36.25 | 11.05 | 36.20 | 11.03 |
| 26 | 35.95 | 10.96 | 35.90 | 10.94 | 35.85 | 10.93 | 35.80 | 10.91 | 35.75 | 10.90 |
| 27 | 35.40 | 10.79 | 35.30 | 10.76 | 35.25 | 10.74 | 35.20 | 10.73 | 35.10 | 10.70 |
| 28 | 34.95 | 10.65 | 34.90 | 10.64 | 34.85 | 10.62 | 34.85 | 10.62 | 34.80 | 10.61 |
| 29 | 34.60 | 10.55 | 34.60 | 10.55 | 34.55 | 10.53 | 34.50 | 10.52 | 34.46 | 10.50 |
| 30 | 34.30 | 10.45 | 34.30 | 10.45 | 34.25 | 10.44 | 34.25 | 10.44 | 34.20 | 10.42 |

PLACE---BAKTARPUR

SEP. 1973

GAUGE NO.90 JR

B.M. LEVEL

| DATE | 0600 HOURS FEET | 0600 HOURS METRES | 0900 HOURS FEET | 0900 HOURS METRES | 1200 HOURS FEET | 1200 HOURS METRES | 1500 HOURS FEET | 1500 HOURS METRES | 1800 HOURS FEET | 1800 HOURS METRES |
|------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| 1 | 29.81 | 9.09 | 29.82 | 9.09 | 29.85 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 |
| 2 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 |
| 3 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 | 29.86 | 9.10 |
| 4 | 29.81 | 9.09 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 |
| 5 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 |
| 6 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 |
| 7 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 | 29.84 | 9.10 |
| 8 | 29.89 | 9.11 | 29.89 | 9.11 | 29.89 | 9.11 | 29.89 | 9.11 | 29.94 | 9.13 |
| 9 | 29.94 | 9.13 | 29.94 | 9.13 | 29.94 | 9.13 | 29.89 | 9.11 | 29.89 | 9.11 |
| 10 | 29.79 | 9.08 | 29.79 | 9.08 | 29.79 | 9.08 | 29.75 | 9.07 | 29.79 | 9.08 |
| 11 | 29.79 | 9.08 | 29.75 | 9.07 | 29.75 | 9.07 | 29.75 | 9.07 | 29.80 | 9.08 |
| 12 | 29.85 | 9.10 | 29.85 | 9.10 | 29.85 | 9.10 | 29.90 | 9.11 | 29.90 | 9.11 |
| 13 | 29.95 | 9.13 | 29.95 | 9.13 | 30.00 | 9.14 | 30.00 | 9.14 | 30.05 | 9.16 |
| 14 | 30.16 | 9.19 | 30.15 | 9.19 | 30.20 | 9.20 | 30.25 | 9.22 | 30.30 | 9.24 |
| 15 | 30.60 | 9.33 | 30.55 | 9.31 | 30.65 | 9.34 | 30.75 | 9.37 | 30.80 | 9.39 |
| 16 | 31.10 | 9.48 | 31.15 | 9.49 | 31.25 | 9.53 | 31.40 | 9.57 | 31.50 | 9.60 |
| 17 | 31.80 | 9.69 | 31.95 | 9.74 | 32.10 | 9.79 | 32.30 | 9.85 | 32.50 | 9.91 |
| 18 | 32.85 | 10.01 | 32.90 | 10.03 | 32.95 | 10.04 | 33.00 | 10.06 | 33.00 | 10.06 |
| 19 | 33.10 | 10.09 | 33.10 | 10.09 | 33.15 | 10.10 | 33.15 | 10.10 | 33.20 | 10.12 |
| 20 | 33.25 | 10.13 | 33.25 | 10.13 | 33.25 | 10.13 | 33.20 | 10.12 | 33.25 | 10.13 |
| 21 | 33.25 | 10.13 | 33.24 | 10.13 | 33.24 | 10.13 | 33.19 | 10.12 | 33.19 | 10.12 |
| 22 | 33.09 | 10.09 | 33.09 | 10.09 | 32.99 | 10.06 | 32.94 | 10.04 | 32.89 | 10.02 |
| 23 | 32.79 | 9.99 | 32.74 | 9.98 | 32.69 | 9.96 | 32.64 | 9.95 | 32.64 | 9.95 |
| 24 | 32.49 | 9.90 | 32.44 | 9.89 | 32.39 | 9.87 | 32.34 | 9.86 | 32.24 | 9.83 |
| 25 | 31.94 | 9.74 | 31.89 | 9.72 | 31.79 | 9.69 | 31.69 | 9.66 | 31.59 | 9.63 |
| 26 | 31.15 | 9.49 | 31.19 | 9.51 | 31.09 | 9.48 | 31.04 | 9.46 | 30.94 | 9.43 |
| 27 | 30.69 | 9.35 | 30.64 | 9.34 | 30.59 | 9.32 | 30.54 | 9.31 | 30.49 | 9.29 |
| 28 | 30.29 | 9.23 | 30.24 | 9.22 | 30.24 | 9.22 | 30.19 | 9.20 | 30.19 | 9.20 |
| 29 | 30.09 | 9.17 | 30.09 | 9.17 | 30.04 | 9.16 | 30.04 | 9.16 | 30.04 | 9.16 |
| 30 | 29.99 | 9.14 | 29.99 | 9.14 | 29.99 | 9.14 | 29.99 | 9.14 | 29.94 | 9.13 |

PLACE---CHORVARENGA

SEP. 1973

GAUGE NO.31 JL

B.M. LEVEL 37.14 FEET

| DATE | 0600 HOURS FEET | 0900 HOURS METRES | 0900 HOURS FEET | 1200 HOURS METRES | 1200 HOURS FEET | 1500 HOURS METRES | 1500 HOURS FEET | 1800 HOURS METRES | 1800 HOURS FEET | HOURS METRES |
|------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|-----------------|
| 1 | 30.59 | 9.32 | 30.59 | 9.32 | 30.59 | 9.32 | 30.59 | 9.32 | 30.59 | 9.32 |
| 2 | 30.64 | 9.34 | 30.64 | 9.34 | 30.64 | 9.34 | 30.69 | 9.35 | 30.69 | 9.35 |
| 3 | 30.74 | 9.37 | 30.74 | 9.37 | 30.74 | 9.37 | 30.74 | 9.37 | 30.74 | 9.37 |
| 4 | 30.69 | 9.35 | 30.69 | 9.35 | 30.76 | 9.38 | 30.76 | 9.38 | 30.76 | 9.38 |
| 5 | 30.76 | 9.38 | 30.76 | 9.38 | 30.76 | 9.38 | 30.76 | 9.38 | 30.76 | 9.38 |
| 6 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 |
| 7 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 | 30.86 | 9.41 | 30.86 | 9.41 |
| 8 | 30.86 | 9.41 | 30.86 | 9.41 | 30.86 | 9.41 | 30.86 | 9.41 | 30.86 | 9.41 |
| 9 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 | 30.81 | 9.39 |
| 10 | 30.76 | 9.38 | 30.76 | 9.38 | 30.76 | 9.38 | 30.71 | 9.36 | 30.71 | 9.36 |
| 11 | 30.71 | 9.36 | 30.71 | 9.36 | 30.70 | 9.36 | 30.75 | 9.37 | 30.75 | 9.37 |
| 12 | 30.86 | 9.41 | 30.86 | 9.41 | 30.86 | 9.41 | 30.85 | 9.41 | 30.85 | 9.41 |
| 13 | 30.95 | 9.43 | 30.95 | 9.43 | 31.00 | 9.45 | 31.00 | 9.45 | 31.05 | 9.46 |
| 14 | 31.15 | 9.49 | 31.15 | 9.49 | 31.20 | 9.51 | 30.20 | 9.51 | 31.25 | 9.53 |
| 15 | 31.50 | 9.60 | 31.55 | 9.62 | 31.60 | 9.63 | 31.65 | 9.65 | 31.75 | 9.68 |
| 16 | 32.20 | 9.81 | 32.25 | 9.83 | 32.30 | 9.85 | 32.40 | 9.88 | 32.50 | 9.91 |
| 17 | 32.90 | 10.03 | 32.00 | 9.75 | 33.15 | 10.10 | 33.25 | 10.13 | 33.50 | 10.21 |
| 18 | 33.90 | 10.33 | 33.95 | 10.35 | 34.00 | 10.36 | 34.05 | 10.38 | 34.05 | 10.38 |
| 19 | 34.15 | 10.41 | 34.15 | 10.41 | 34.15 | 10.41 | 34.20 | 10.42 | 34.20 | 10.42 |
| 20 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 | 34.30 | 10.45 | 34.30 | 10.45 |
| 21 | 34.30 | 10.45 | 34.30 | 10.45 | 34.30 | 10.45 | 34.25 | 10.44 | 34.25 | 10.44 |
| 22 | 34.20 | 10.42 | 34.20 | 10.42 | 34.20 | 10.42 | 34.15 | 10.41 | 34.15 | 10.41 |
| 23 | 33.95 | 10.35 | 33.90 | 10.33 | 33.85 | 10.32 | 33.80 | 10.30 | 33.75 | 10.29 |
| 24 | 33.50 | 10.21 | 33.45 | 10.20 | 33.42 | 10.19 | 33.37 | 10.17 | 33.32 | 10.16 |
| 25 | 33.02 | 10.06 | 32.92 | 10.03 | 32.82 | 10.00 | 32.72 | 9.97 | 32.67 | 9.96 |
| 26 | 32.37 | 9.87 | 32.32 | 9.85 | 32.22 | 9.82 | 32.17 | 9.81 | 32.12 | 9.79 |
| 27 | 31.87 | 9.71 | 31.77 | 9.68 | 31.67 | 9.65 | 31.62 | 9.64 | 31.57 | 9.62 |
| 28 | 31.32 | 9.55 | 31.27 | 9.53 | 31.22 | 9.52 | 31.17 | 9.50 | 31.17 | 9.50 |
| 29 | 31.07 | 9.47 | 31.07 | 9.47 | 31.07 | 9.47 | 31.02 | 9.45 | 31.02 | 9.45 |
| 30 | 30.97 | 9.44 | 30.97 | 9.44 | 30.97 | 9.44 | 30.97 | 9.44 | 30.97 | 9.44 |

PLACE---DAKATIAPARA

OCT. 1973.

GAUGE NO. 51 J 13-1

B.M. LEVEL 68.14 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 59.77 | 18.22 | 59.77 | 18.22 | 59.77 | 18.22 | 59.82 | 18.23 | 59.82 | 18.23 |
| 2 | 59.82 | 18.23 | 59.82 | 18.23 | 59.82 | 18.23 | 59.87 | 18.25 | 59.92 | 18.26 |
| 3 | 60.07 | 18.31 | 60.12 | 18.32 | 60.12 | 18.32 | 60.17 | 18.34 | 60.17 | 18.34 |
| 4 | 60.37 | 18.40 | 60.42 | 18.42 | 60.47 | 18.43 | 60.47 | 18.43 | 60.52 | 18.45 |
| 5 | 60.72 | 18.51 | 60.72 | 18.51 | 60.77 | 18.52 | 60.82 | 18.54 | 60.82 | 18.54 |
| 6 | 59.62 | 18.17 | 59.57 | 18.16 | 59.52 | 18.14 | 59.42 | 18.11 | 59.32 | 18.08 |
| 7 | 59.02 | 17.99 | 58.97 | 17.97 | 58.92 | 17.96 | 58.87 | 17.94 | 58.82 | 17.93 |
| 8 | 58.72 | 17.90 | 58.77 | 17.91 | 58.77 | 17.91 | 58.77 | 17.91 | 58.72 | 17.90 |
| 9 | 58.42 | 17.81 | 58.32 | 17.78 | 58.22 | 17.75 | 58.12 | 17.71 | 58.02 | 17.68 |
| 10 | 57.77 | 17.61 | 57.72 | 17.59 | 57.67 | 17.58 | 57.62 | 17.56 | 57.62 | 17.56 |
| 11 | 57.42 | 17.50 | 57.52 | 17.53 | 57.57 | 17.55 | 57.57 | 17.55 | 57.62 | 17.56 |
| 12 | 57.82 | 17.62 | 57.92 | 17.65 | 58.02 | 17.68 | 58.17 | 17.73 | 58.32 | 17.78 |
| 13 | 58.82 | 17.93 | 58.87 | 17.94 | 58.92 | 17.96 | 59.02 | 17.99 | 59.12 | 18.02 |
| 14 | --- | --- | 60.28 | 18.37 | 60.75 | 18.52 | 61.25 | 18.67 | 61.65 | 18.79 |
| 15 | 62.45 | 19.03 | 62.45 | 19.03 | 62.45 | 19.03 | 62.40 | 19.02 | 62.35 | 19.00 |
| 16 | 61.65 | 18.79 | 61.55 | 18.76 | 61.35 | 18.70 | 61.25 | 18.67 | 61.15 | 18.64 |
| 17 | 60.25 | 18.36 | 60.20 | 18.35 | 60.05 | 18.30 | 59.95 | 18.27 | 59.85 | 18.24 |
| 18 | 59.20 | 18.04 | 59.15 | 18.03 | 59.10 | 18.01 | 59.05 | 18.00 | 59.00 | 17.98 |
| 19 | 58.35 | 17.79 | 58.30 | 17.77 | 58.25 | 17.67 | 58.20 | 17.74 | 58.20 | 17.74 |
| 20 | 58.00 | 17.68 | 57.95 | 17.66 | 57.95 | 17.66 | 57.90 | 17.65 | 57.90 | 17.65 |
| 21 | 57.70 | 17.59 | 57.65 | 17.57 | 57.60 | 17.56 | 57.60 | 17.56 | 57.60 | 17.56 |
| 22 | 57.60 | 17.56 | 57.60 | 17.56 | 57.60 | 17.56 | 57.60 | 17.56 | 57.60 | 17.56 |
| 23 | 57.40 | 17.50 | 57.35 | 17.48 | 57.35 | 17.48 | 57.30 | 17.47 | 57.30 | 17.47 |
| 24 | 57.05 | 17.39 | 57.00 | 17.37 | 57.00 | 17.37 | 56.95 | 17.36 | 56.95 | 17.36 |
| 25 | 56.70 | 17.28 | 56.65 | 17.27 | 56.65 | 17.27 | 56.60 | 17.25 | 56.60 | 17.25 |
| 26 | 56.25 | 17.15 | 56.20 | 17.13 | 56.15 | 17.11 | 56.15 | 17.11 | 56.10 | 17.10 |
| 27 | 55.75 | 16.99 | 55.70 | 16.98 | 55.65 | 16.96 | 55.80 | 17.01 | 55.55 | 16.93 |
| 28 | 55.25 | 16.84 | 55.20 | 16.82 | 55.20 | 16.82 | 55.15 | 16.81 | 55.15 | 16.81 |
| 29 | 54.95 | 16.75 | 54.95 | 16.75 | 54.90 | 16.73 | 54.90 | 16.73 | 54.85 | 16.72 |
| 30 | 54.40 | 16.58 | 54.35 | 16.57 | 54.30 | 16.55 | 54.25 | 16.54 | 54.25 | 16.54 |
| 31 | 54.15 | 16.50 | 54.15 | 16.50 | 54.10 | 16.49 | 54.10 | 16.49 | 54.05 | 16.47 |

PLACE---DELUABARI

OCT. 1973

GAUGE NO. 14

B.M. LEVEL 63.55 FEET
(NEWB.M. 62.00)

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 57.00 | 17.37 | 57.00 | 17.37 | 57.00 | 17.37 | 57.00 | 17.37 | 57.00 | 17.37 |
| 2 | 57.05 | 17.39 | 57.05 | 17.39 | 57.05 | 17.39 | 57.05 | 17.39 | 57.10 | 17.40 |
| 3 | 57.30 | 17.47 | 57.30 | 17.47 | 57.30 | 17.47 | 57.30 | 17.47 | 57.35 | 17.48 |
| 4 | 57.45 | 17.51 | 57.50 | 17.53 | 57.55 | 17.54 | 57.60 | 17.56 | 57.65 | 17.57 |
| 5 | 57.90 | 17.65 | 57.95 | 17.66 | 57.95 | 17.66 | 57.90 | 17.65 | 57.85 | 17.63 |
| 6 | 57.40 | 17.50 | 57.30 | 17.47 | 57.20 | 17.43 | 57.15 | 17.42 | 57.10 | 17.40 |
| 7 | 56.80 | 17.31 | 56.75 | 17.30 | 56.70 | 17.28 | 56.65 | 17.27 | 56.55 | 17.24 |
| 8 | 56.40 | 17.19 | 56.40 | 17.19 | 56.40 | 17.19 | 56.40 | 17.19 | 56.40 | 17.19 |
| 9 | 56.30 | 17.16 | 56.30 | 17.16 | 56.30 | 17.16 | 56.30 | 17.16 | 56.30 | 17.16 |
| 10 | 56.20 | 17.13 | 56.20 | 17.13 | 56.15 | 17.11 | 56.15 | 17.11 | 56.10 | 17.10 |
| 11 | 55.95 | 17.05 | 55.90 | 17.04 | 55.85 | 17.02 | 55.85 | 17.02 | 55.80 | 17.01 |
| 12 | 55.60 | 16.95 | 55.55 | 16.93 | 55.50 | 16.92 | 55.50 | 16.92 | 55.45 | 16.90 |
| 13 | 55.30 | 16.86 | 55.25 | 16.84 | 55.30 | 16.86 | 55.35 | 16.87 | 55.40 | 16.89 |
| 14 | 57.10 | 17.40 | 57.60 | 17.56 | 57.80 | 17.62 | 58.00 | 17.68 | 58.20 | 17.74 |
| 15 | 59.02 | 18.04 | 59.30 | 18.07 | 59.30 | 18.07 | 59.30 | 18.07 | 59.15 | 18.03 |
| 16 | 58.60 | 17.86 | 58.40 | 17.80 | 58.20 | 17.74 | 58.10 | 17.71 | 57.90 | 17.65 |
| 17 | 57.35 | 17.48 | 57.20 | 17.43 | 57.05 | 17.39 | 56.95 | 17.36 | 56.80 | 17.31 |
| 18 | 56.20 | 17.13 | 56.10 | 17.10 | 56.00 | 17.07 | 55.90 | 17.04 | 55.85 | 17.02 |
| 19 | 55.05 | 16.78 | 55.00 | 16.76 | 54.95 | 16.75 | 54.90 | 16.73 | 54.85 | 16.72 |
| 20 | 54.75 | 16.69 | 54.70 | 16.67 | 54.65 | 16.66 | 54.65 | 16.66 | 54.60 | 16.64 |
| 21 | 54.45 | 16.60 | 54.45 | 16.60 | 54.45 | 16.60 | 54.45 | 16.60 | 54.45 | 16.60 |
| 22 | 54.45 | 16.60 | 54.45 | 16.60 | 54.45 | 16.60 | 54.45 | 16.60 | 54.40 | 16.58 |
| 23 | 54.45 | 16.60 | 54.45 | 16.60 | 54.40 | 16.58 | 54.40 | 16.58 | 54.35 | 16.57 |
| 24 | 54.20 | 16.52 | 54.20 | 16.52 | 54.15 | 16.50 | 54.15 | 16.50 | 54.10 | 16.49 |
| 25 | 53.85 | 16.41 | 53.80 | 16.40 | 53.75 | 16.38 | 53.70 | 16.37 | 53.65 | 16.35 |
| 26 | 53.40 | 16.28 | 53.35 | 16.26 | 53.30 | 16.25 | 53.25 | 16.23 | 53.20 | 16.22 |
| 27 | 52.95 | 16.14 | 52.90 | 16.12 | 52.85 | 16.11 | 52.80 | 16.09 | 52.75 | 16.08 |
| 28 | 52.55 | 16.02 | 52.50 | 16.00 | 52.45 | 15.99 | 52.40 | 15.97 | 52.35 | 15.96 |
| 29 | 52.25 | 15.93 | 52.20 | 15.91 | 52.15 | 15.90 | 52.10 | 15.88 | 52.05 | 15.86 |
| 30 | 51.85 | 15.80 | 51.80 | 15.79 | 51.75 | 15.77 | 51.70 | 15.76 | 51.65 | 15.74 |
| 31 | 51.50 | 15.70 | 51.50 | 15.70 | 51.45 | 15.68 | 51.45 | 15.68 | 51.40 | 15.67 |

PLACE --- DIGALKANDI

OCT. 1973

GAUGE NO. 45

B.M. LEVEL 64.44 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 56.10 | 17.10 | 56.10 | 17.10 | 56.10 | 17.10 | 56.10 | 17.10 | 56.10 | 17.10 |
| 2 | 56.20 | 17.13 | 56.20 | 17.13 | 56.25 | 17.15 | 56.25 | 17.15 | 56.30 | 17.16 |
| 3 | 56.50 | 17.22 | 56.50 | 17.22 | 56.55 | 17.24 | 56.55 | 17.24 | 56.60 | 17.25 |
| 4 | 56.70 | 17.28 | 56.75 | 17.30 | 56.80 | 17.31 | 56.85 | 17.33 | 56.90 | 17.34 |
| 5 | 57.10 | 17.40 | 57.05 | 17.39 | 57.00 | 17.37 | 56.95 | 17.36 | 56.90 | 17.34 |
| 6 | 56.70 | 17.28 | 56.65 | 17.27 | 56.55 | 17.24 | 56.45 | 17.21 | 56.40 | 17.19 |
| 7 | 56.10 | 17.10 | 56.05 | 17.08 | 56.00 | 17.07 | 55.95 | 17.05 | 55.90 | 17.04 |
| 8 | 55.75 | 16.99 | 55.75 | 16.99 | 55.70 | 16.98 | 55.70 | 16.98 | 55.60 | 16.95 |
| 9 | 55.60 | 16.95 | 55.60 | 16.95 | 55.60 | 16.95 | 55.60 | 16.95 | 55.60 | 16.95 |
| 10 | 55.50 | 16.92 | 55.50 | 16.92 | 55.45 | 16.90 | 55.45 | 16.90 | 55.40 | 16.89 |
| 11 | 55.25 | 16.84 | 55.25 | 16.84 | 55.25 | 16.84 | 55.20 | 16.82 | 55.20 | 16.82 |
| 12 | 55.00 | 16.76 | 55.00 | 16.76 | 54.95 | 16.75 | 54.95 | 16.75 | 54.90 | 16.73 |
| 13 | 54.70 | 16.67 | 54.70 | 16.67 | 54.70 | 16.67 | 54.80 | 16.70 | 54.90 | 16.73 |
| 14 | 56.80 | 17.31 | 57.30 | 17.47 | 57.75 | 17.60 | 58.00 | 17.68 | 58.30 | 17.77 |
| 15 | 59.05 | 18.00 | 59.05 | 18.00 | 59.10 | 18.01 | 59.10 | 18.01 | 59.05 | 18.00 |
| 16 | 58.60 | 17.86 | 58.50 | 17.83 | 58.30 | 17.77 | 58.05 | 17.69 | 57.90 | 17.65 |
| 17 | 57.15 | 17.42 | 57.00 | 17.37 | 56.85 | 17.33 | 56.75 | 17.30 | 56.60 | 17.25 |
| 18 | 56.00 | 17.07 | 55.95 | 17.05 | 55.75 | 16.99 | 55.65 | 16.96 | 55.40 | 16.89 |
| 19 | 54.85 | 16.72 | 54.75 | 16.69 | 54.65 | 16.66 | 54.50 | 16.61 | 54.40 | 16.58 |
| 20 | 54.20 | 16.52 | 54.15 | 16.50 | 54.10 | 16.49 | 54.05 | 16.47 | 54.05 | 16.47 |
| 21 | 53.90 | 16.43 | 53.90 | 16.43 | 53.85 | 16.41 | 53.85 | 16.41 | 53.80 | 16.40 |
| 22 | 53.80 | 16.40 | 53.80 | 16.40 | 53.85 | 16.41 | 53.85 | 16.41 | 53.90 | 16.43 |
| 23 | 53.90 | 16.43 | 53.90 | 16.43 | 53.85 | 16.41 | 53.85 | 16.41 | 53.85 | 16.41 |
| 24 | 53.65 | 16.35 | 53.65 | 16.35 | 53.60 | 16.34 | 53.60 | 16.34 | 53.55 | 16.32 |
| 25 | 53.30 | 16.25 | 53.25 | 16.23 | 53.20 | 16.22 | 53.15 | 16.20 | 53.10 | 16.18 |
| 26 | 52.85 | 16.11 | 52.85 | 16.11 | 52.80 | 16.09 | 52.75 | 16.08 | 52.70 | 16.06 |
| 27 | 52.45 | 15.99 | 52.40 | 15.97 | 52.30 | 15.94 | 52.25 | 15.93 | 52.20 | 15.91 |
| 28 | 52.00 | 15.85 | 51.95 | 15.83 | 51.85 | 15.80 | 51.75 | 15.77 | 51.65 | 15.74 |
| 29 | 51.50 | 15.70 | 51.40 | 15.67 | 51.30 | 15.64 | 51.20 | 15.61 | 51.15 | 15.59 |
| 30 | 50.95 | 15.53 | 50.95 | 15.53 | 50.90 | 15.51 | 50.85 | 15.50 | 50.80 | 15.48 |
| 31 | 50.65 | 15.44 | 50.65 | 15.44 | 50.60 | 15.42 | 50.57 | 15.41 | 50.57 | 15.41 |

PLACE---PRAJAPATI

OCT. 1973

GAUGE NO. 47-J 13-12 LB

B.M. LEVEL 63.23 FEET

| DATE | 0600 HOURS FEET METRES | 0900 HOURS FEET METRES | 1200 HOURS FEET METRES | 1500 HOURS FEET METRES | 1800 HOURS FEET METRES |
|------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1 | 56.33 17.17 | 56.33 17.17 | 56.33 17.17 | 56.33 17.17 | 56.33 17.17 |
| 2 | 56.38 17.18 | 56.38 17.18 | 56.43 17.20 | 56.43 17.20 | 56.48 17.22 |
| 3 | 56.53 17.23 | 56.53 17.23 | 56.58 17.25 | 56.58 17.25 | 56.63 17.26 |
| 4 | 56.73 17.29 | 56.73 17.29 | 56.78 17.31 | 56.83 17.32 | 56.93 17.35 |
| 5 | 57.08 17.40 | 57.13 17.41 | 57.13 17.41 | 57.08 17.40 | 57.03 17.38 |
| 6 | 56.73 17.29 | 56.73 17.29 | 56.68 17.28 | 56.68 17.28 | 56.63 17.26 |
| 7 | 56.43 17.20 | 56.43 17.20 | 56.38 17.18 | 56.33 17.17 | 56.23 17.14 |
| 8 | 56.03 17.08 | 55.98 17.06 | 55.88 17.03 | 55.83 17.02 | 55.73 16.99 |
| 9 | 55.53 16.93 | 55.33 16.86 | 55.48 16.91 | 55.48 16.91 | 55.43 16.90 |
| 10 | 55.43 16.90 | 55.23 16.83 | 55.38 16.88 | 55.38 16.88 | 55.33 16.86 |
| 11 | 55.23 16.83 | 55.23 16.83 | 55.18 16.82 | 55.18 16.82 | 55.13 16.80 |
| 12 | 55.13 16.80 | 55.13 16.80 | 55.08 16.79 | 55.08 16.79 | 55.05 16.78 |
| 13 | 55.05 16.78 | 55.10 16.79 | 55.15 16.81 | 55.20 16.82 | 55.25 16.84 |
| 14 | 56.85 17.33 | 57.30 17.47 | 57.75 17.60 | 58.05 17.69 | 58.35 17.79 |
| 15 | 58.95 17.97 | 59.00 17.98 | 59.05 18.00 | 59.05 18.00 | 59.00 17.98 |
| 16 | 58.45 17.82 | 58.40 17.80 | 58.35 17.79 | 58.25 17.75 | 58.15 17.72 |
| 17 | 57.05 17.39 | 56.95 17.36 | 56.85 17.33 | 56.75 17.30 | 56.65 17.27 |
| 18 | 56.20 17.13 | 56.10 17.10 | 56.00 17.07 | 55.95 17.05 | 55.90 17.04 |
| 19 | 55.60 16.95 | 55.60 16.95 | 55.50 16.92 | 55.40 16.89 | 55.30 16.86 |
| 20 | 54.90 16.73 | 54.85 16.72 | 54.80 16.70 | 54.75 16.69 | 54.70 16.67 |
| 21 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 |
| 22 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 |
| 23 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 | 54.60 16.64 |
| 24 | 54.40 16.58 | 54.40 16.58 | 54.35 16.57 | 54.30 16.55 | 54.20 16.52 |
| 25 | 53.90 16.43 | 53.85 16.41 | 53.75 16.38 | 53.70 16.37 | 53.60 16.34 |
| 26 | 53.40 16.28 | 53.40 16.28 | 53.35 16.26 | 53.30 16.25 | 53.20 16.22 |
| 27 | 53.00 16.15 | 52.95 16.14 | 52.90 16.12 | 52.85 16.11 | 52.75 16.08 |
| 28 | 52.55 16.02 | 52.50 16.00 | 52.50 16.00 | 52.50 16.00 | 52.45 15.99 |
| 29 | 52.30 15.94 | 52.30 15.94 | 52.25 15.93 | 52.20 15.91 | 52.15 15.90 |
| 30 | 51.95 15.83 | 51.95 15.83 | 51.95 15.83 | 51.90 15.82 | 51.85 15.80 |
| 31 | 51.65 15.74 | 51.60 15.73 | 51.55 15.71 | 51.55 15.71 | 51.50 15.70 |

PLACE---MUKONGARI

OCT. 1973

GAUGE NO. "0" J 11 LB

B.M. LEVEL 56.05 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 48.60 | 14.81 | 48.60 | 14.81 | 48.60 | 14.81 | 48.60 | 14.81 | 48.60 | 14.81 |
| 2 | 48.65 | 14.83 | 48.65 | 14.83 | 48.65 | 14.83 | 48.65 | 14.83 | 48.65 | 14.83 |
| 3 | 48.70 | 14.84 | 48.70 | 14.84 | 48.70 | 14.84 | 48.75 | 14.86 | 48.80 | 14.87 |
| 4 | 48.95 | 14.92 | 48.95 | 14.92 | 49.00 | 14.94 | 49.05 | 14.95 | 49.10 | 14.97 |
| 5 | 49.35 | 15.04 | 49.40 | 15.06 | 49.40 | 15.06 | 49.40 | 15.06 | 49.40 | 15.06 |
| 6 | 49.20 | 15.00 | 49.20 | 15.00 | 49.15 | 14.98 | 49.10 | 14.97 | 49.05 | 14.95 |
| 7 | 48.65 | 14.83 | 48.60 | 14.81 | 48.55 | 14.80 | 48.50 | 14.78 | 48.45 | 14.77 |
| 8 | 48.10 | 14.66 | 48.00 | 14.63 | 47.95 | 14.62 | 47.90 | 14.60 | 47.85 | 14.58 |
| 9 | 47.70 | 14.54 | 47.70 | 14.54 | 47.70 | 14.54 | 47.70 | 14.54 | 47.70 | 14.54 |
| 10 | 47.70 | 14.54 | 47.70 | 14.54 | 47.70 | 14.54 | 47.80 | 14.57 | 47.75 | 14.55 |
| 11 | 47.60 | 14.51 | 47.65 | 14.52 | 47.55 | 14.49 | 47.50 | 14.48 | 47.45 | 14.46 |
| 12 | 47.25 | 14.40 | 47.30 | 14.42 | 47.35 | 14.43 | 47.35 | 14.43 | 47.35 | 14.43 |
| 13 | 47.65 | 14.52 | 47.85 | 14.58 | 48.05 | 14.65 | 48.25 | 14.71 | 48.45 | 14.77 |
| 14 | 48.90 | 14.90 | 49.10 | 14.97 | 49.30 | 15.03 | 49.50 | 15.09 | 49.60 | 15.12 |
| 15 | 50.90 | 15.51 | 51.10 | 15.58 | 51.15 | 15.59 | 51.15 | 15.59 | 51.20 | 15.61 |
| 16 | 50.95 | 15.53 | 50.05 | 15.26 | 50.75 | 15.47 | 50.60 | 15.42 | 50.45 | 15.38 |
| 17 | 49.75 | 15.16 | 49.60 | 15.12 | 49.45 | 15.07 | 49.25 | 15.01 | 49.05 | 14.95 |
| 18 | 48.35 | 14.74 | 48.25 | 14.71 | 48.15 | 14.68 | 48.00 | 14.63 | 47.85 | 14.58 |
| 19 | 47.35 | 14.43 | 47.25 | 14.40 | 47.15 | 14.37 | 47.05 | 14.34 | 46.95 | 14.31 |
| 20 | 46.65 | 14.22 | 46.55 | 14.19 | 46.50 | 14.17 | 46.45 | 14.16 | 46.40 | 14.14 |
| 21 | 46.15 | 14.07 | 46.15 | 14.07 | 46.10 | 14.05 | 46.05 | 14.04 | 46.00 | 14.02 |
| 22 | 45.75 | 13.94 | 45.70 | 13.93 | 45.65 | 13.91 | 45.60 | 13.90 | 45.55 | 13.88 |
| 23 | 45.55 | 13.88 | 45.55 | 13.88 | 45.55 | 13.88 | 45.60 | 13.90 | 45.65 | 13.91 |
| 24 | 45.85 | 13.98 | 45.85 | 13.98 | 45.85 | 13.98 | 45.85 | 13.98 | 45.85 | 13.98 |
| 25 | 45.75 | 13.94 | 45.75 | 13.94 | 45.70 | 13.93 | 45.65 | 13.91 | 45.60 | 13.90 |
| 26 | 45.35 | 13.82 | 45.30 | 13.81 | 45.25 | 13.79 | 45.20 | 13.78 | 45.15 | 13.76 |
| 27 | 44.90 | 13.69 | 44.85 | 13.67 | 44.80 | 13.66 | 44.75 | 13.64 | 44.70 | 13.62 |
| 28 | 44.45 | 13.55 | 44.40 | 13.53 | 44.35 | 13.52 | 44.25 | 13.49 | 44.15 | 13.46 |
| 29 | 43.75 | 13.34 | 43.80 | 13.35 | 43.75 | 13.34 | 43.75 | 13.34 | 43.70 | 13.32 |
| 30 | 43.60 | 13.29 | 43.60 | 13.29 | 43.55 | 13.27 | 43.55 | 13.27 | 43.50 | 13.26 |
| 31 | 43.30 | 13.20 | 43.25 | 13.18 | 43.20 | 13.17 | 43.15 | 13.15 | 43.10 | 13.14 |

PLACE ---MILONPUR

OCT. 1973

GAUGE NO. 76

B.M. LEVEL 60.18 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 48.67 | 14.83 | 48.67 | 14.83 | 48.67 | 14.83 | 48.62 | 14.82 | 48.62 | 14.82 |
| 2 | 48.57 | 14.80 | 48.57 | 14.80 | 48.57 | 14.80 | 48.57 | 14.80 | 48.52 | 14.79 |
| 3 | 48.47 | 14.77 | 48.42 | 14.76 | 48.42 | 14.76 | 48.37 | 14.74 | 48.37 | 14.74 |
| 4 | 48.32 | 14.73 | 48.32 | 14.73 | 48.32 | 14.73 | 48.27 | 14.71 | 48.27 | 14.71 |
| 5 | 48.22 | 14.70 | 48.22 | 14.70 | 48.17 | 14.68 | 48.17 | 14.68 | 48.17 | 14.68 |
| 6 | 48.02 | 14.64 | 47.97 | 14.62 | 47.92 | 14.61 | 47.87 | 14.59 | 47.82 | 14.58 |
| 7 | 47.62 | 14.51 | 47.62 | 14.51 | 47.57 | 14.50 | 47.57 | 14.50 | 47.47 | 14.47 |
| 8 | 47.32 | 14.42 | 47.32 | 14.42 | 47.27 | 14.41 | 47.27 | 14.41 | 47.22 | 14.39 |
| 9 | 47.15 | 14.37 | 47.15 | 14.37 | 47.15 | 14.37 | 47.10 | 14.36 | 47.10 | 14.36 |
| 10 | 47.05 | 14.34 | 47.05 | 14.34 | 47.00 | 14.33 | 46.95 | 14.31 | 46.95 | 14.31 |
| 11 | 46.80 | 14.26 | 46.80 | 14.26 | 46.75 | 14.25 | 46.75 | 14.25 | 46.70 | 14.23 |
| 12 | 46.60 | 14.20 | 46.60 | 14.20 | 46.55 | 14.19 | 46.55 | 14.19 | 46.55 | 14.19 |
| 13 | 46.55 | 14.19 | 46.55 | 14.19 | 46.55 | 14.19 | 46.60 | 14.20 | 46.65 | 14.22 |
| 14 | 48.15 | 14.68 | 48.40 | 14.75 | 48.95 | 14.92 | 49.15 | 14.98 | 49.45 | 15.07 |
| 15 | 50.85 | 15.50 | 50.95 | 15.53 | 51.05 | 15.56 | 51.10 | 15.58 | 51.10 | 15.58 |
| 16 | 50.85 | 15.50 | 50.80 | 15.48 | 50.65 | 15.44 | 50.55 | 15.41 | 50.40 | 15.36 |
| 17 | 49.65 | 15.13 | 49.55 | 15.10 | 49.45 | 15.07 | 49.25 | 15.01 | 49.05 | 14.95 |
| 18 | 48.45 | 14.77 | 48.35 | 14.74 | 48.25 | 14.73 | 48.15 | 14.68 | 48.05 | 14.65 |
| 19 | 47.50 | 14.48 | 47.35 | 14.43 | 47.35 | 14.43 | 47.30 | 14.42 | 47.25 | 14.40 |
| 20 | 46.95 | 14.31 | 46.90 | 14.30 | 46.85 | 14.28 | 46.80 | 14.26 | 46.75 | 14.25 |
| 21 | 46.60 | 14.20 | 46.55 | 14.19 | 46.55 | 14.19 | 46.50 | 14.17 | 46.50 | 14.17 |
| 22 | 46.45 | 14.16 | 46.45 | 14.16 | 46.45 | 14.16 | 46.45 | 14.16 | 46.45 | 14.16 |
| 23 | 46.45 | 14.16 | 46.45 | 14.16 | 46.45 | 14.16 | 46.40 | 14.14 | 46.40 | 14.14 |
| 24 | 46.30 | 14.11 | 46.30 | 14.11 | 46.25 | 14.10 | 46.25 | 14.10 | 46.20 | 14.08 |
| 25 | 45.95 | 14.01 | 45.95 | 14.01 | 45.90 | 13.99 | 45.85 | 13.98 | 45.75 | 13.94 |
| 26 | 45.50 | 13.87 | 45.45 | 13.85 | 45.40 | 13.84 | 45.40 | 13.84 | 45.35 | 13.82 |
| 27 | 45.05 | 13.73 | 45.00 | 13.72 | 44.95 | 13.70 | 44.90 | 13.69 | 44.85 | 13.67 |
| 28 | 44.60 | 13.59 | 44.55 | 13.58 | 44.50 | 13.56 | 44.45 | 13.55 | 44.40 | 13.53 |
| 29 | 44.25 | 13.49 | 44.20 | 13.47 | 44.20 | 13.47 | 44.15 | 13.46 | 44.15 | 13.46 |
| 30 | 44.00 | 13.41 | 43.95 | 13.40 | 43.90 | 13.38 | 43.85 | 13.37 | 43.80 | 13.35 |
| 31 | 43.60 | 13.29 | 43.60 | 13.29 | 43.55 | 13.27 | 43.50 | 13.26 | 43.45 | 13.24 |

PLACE---KANDIPARA

OCT. 1973

GAUGE NO.28 J 5' LD

B.M. LEVEL 42.23 FEET

| DATE | 0600 HOURS | | 0900 HOURS | | 1200 HOURS | | 1500 HOURS | | 1800 HOURS | |
|------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES | FEET | METRES |
| 1 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 |
| 2 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 |
| 3 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 | 34.05 | 10.38 |
| 4 | 34.15 | 10.41 | 34.15 | 10.41 | 34.20 | 10.42 | 34.20 | 10.42 | 34.20 | 10.42 |
| 5 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 | 34.25 | 10.44 |
| 6 | 34.30 | 10.45 | 34.30 | 10.45 | 34.25 | 10.44 | 34.25 | 10.44 | 34.20 | 10.42 |
| 7 | 33.95 | 10.35 | 33.90 | 10.33 | 33.85 | 10.32 | 33.80 | 10.30 | 33.75 | 10.29 |
| 8 | 33.55 | 10.23 | 33.50 | 10.21 | 33.45 | 10.20 | 33.45 | 10.20 | 33.40 | 10.18 |
| 9 | 33.35 | 10.17 | 33.35 | 10.17 | 33.35 | 10.17 | 33.35 | 10.17 | 33.30 | 10.15 |
| 10 | 33.30 | 10.15 | 33.30 | 10.15 | 33.25 | 10.13 | 33.25 | 10.13 | 33.25 | 10.13 |
| 11 | 33.25 | 10.13 | 33.25 | 10.13 | 33.25 | 10.13 | 33.20 | 10.12 | 33.20 | 10.12 |
| 12 | 33.00 | 10.06 | 33.10 | 10.09 | 33.10 | 10.09 | 33.05 | 10.07 | 33.00 | 10.06 |
| 13 | 32.90 | 10.03 | 32.90 | 10.03 | 32.90 | 10.03 | 32.90 | 10.03 | 32.90 | 10.03 |
| 14 | 33.00 | 10.06 | 33.15 | 10.10 | 33.30 | 10.15 | 33.50 | 10.21 | 33.75 | 10.29 |
| 15 | 35.00 | 10.67 | 35.20 | 10.73 | 35.30 | 10.76 | 35.45 | 10.81 | 35.50 | 10.82 |
| 16 | 35.65 | 10.87 | 35.65 | 10.87 | 35.65 | 10.87 | 35.60 | 10.85 | 35.55 | 10.84 |
| 17 | 35.05 | 10.68 | 34.95 | 10.65 | 34.85 | 10.62 | 34.75 | 10.59 | 34.65 | 10.56 |
| 18 | 34.15 | 10.41 | 34.05 | 10.38 | 33.95 | 10.35 | 33.85 | 10.32 | 33.75 | 10.29 |
| 19 | 33.25 | 10.13 | 33.15 | 10.10 | 33.10 | 10.06 | 32.95 | 10.04 | 32.90 | 10.03 |
| 20 | 32.55 | 9.92 | 32.45 | 9.89 | 32.40 | 9.88 | 32.30 | 9.85 | 32.15 | 9.80 |
| 21 | 31.75 | 9.68 | 31.55 | 9.62 | 31.40 | 9.57 | 31.30 | 9.54 | 31.20 | 9.51 |
| 22 | 30.95 | 9.43 | 30.95 | 9.43 | 30.90 | 9.42 | 30.90 | 9.42 | 30.85 | 9.40 |
| 23 | 30.80 | 9.39 | 30.80 | 9.39 | 30.80 | 9.39 | 30.75 | 9.37 | 30.75 | 9.37 |
| 24 | 30.65 | 9.34 | 30.65 | 9.34 | 30.60 | 9.33 | 30.55 | 9.31 | 30.50 | 9.30 |
| 25 | 30.35 | 9.25 | 30.30 | 9.24 | 30.25 | 9.22 | 30.20 | 9.20 | 30.15 | 9.19 |
| 26 | 30.00 | 9.14 | 29.95 | 9.13 | 29.85 | 9.10 | 29.80 | 9.08 | 29.75 | 9.07 |
| 27 | 29.55 | 9.01 | 29.55 | 9.01 | 29.50 | 8.99 | 29.50 | 8.99 | 29.45 | 8.98 |
| 28 | 29.15 | 8.88 | 29.10 | 8.87 | 29.05 | 8.85 | 29.00 | 8.84 | 28.90 | 8.81 |
| 29 | 28.70 | 8.75 | 28.65 | 8.73 | 28.55 | 8.70 | 28.50 | 8.69 | 28.45 | 8.67 |
| 30 | 28.30 | 8.63 | 28.30 | 8.63 | 28.25 | 8.61 | 28.25 | 8.61 | 28.20 | 8.60 |
| 31 | 28.00 | 8.53 | 28.00 | 8.53 | 27.95 | 8.52 | 27.95 | 8.52 | 27.90 | 8.50 |

PLACE---BAKTARPUR

OCT. 1973

GAUGE NO.30 JR

B.M. LEVEL

| DATE | 0600 HOURS FEET | HOURS METRES | 0900 HOURS FEET | HOURS METRES | 1200 HOURS FEET | HOURS METRES | 1500 HOURS FEET | HOURS METRES | 1800 HOURS FEET | HOURS METRES |
|------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|
| 1 | 29.94 | 9.13 | 29.94 | 9.13 | 29.94 | 9.13 | 29.94 | 9.13 | 29.94 | 9.13 |
| 2 | 29.94 | 9.13 | 29.94 | 9.13 | 29.99 | 9.14 | 29.99 | 9.14 | 29.99 | 9.14 |
| 3 | 29.89 | 9.11 | 29.84 | 9.10 | 29.79 | 9.08 | 29.79 | 9.08 | 29.74 | 9.06 |
| 4 | 29.64 | 9.03 | 29.64 | 9.03 | 29.59 | 9.02 | 29.59 | 9.02 | 29.54 | 9.00 |
| 5 | 29.44 | 8.97 | 29.44 | 8.97 | 29.39 | 8.96 | 29.34 | 8.94 | 29.34 | 8.94 |
| 6 | 29.29 | 8.93 | 29.29 | 8.93 | 29.29 | 8.93 | 29.29 | 8.93 | 29.29 | 8.93 |
| 7 | 29.29 | 8.93 | 29.29 | 8.93 | 29.15 | 8.88 | 29.19 | 8.90 | 29.19 | 8.90 |
| 8 | 29.19 | 8.90 | 29.19 | 8.90 | 29.19 | 8.90 | 29.04 | 8.85 | 29.04 | 8.85 |
| 9 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 |
| 10 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 | 29.04 | 8.85 |
| 11 | 29.09 | 8.87 | 29.09 | 8.87 | 29.09 | 8.87 | 29.09 | 8.87 | 29.09 | 8.87 |
| 12 | 29.14 | 8.88 | 29.14 | 8.88 | 29.14 | 8.88 | 29.14 | 8.88 | 29.14 | 8.88 |
| 13 | 28.94 | 8.82 | 28.84 | 8.82 | 28.89 | 8.81 | 28.89 | 8.81 | 28.84 | 8.79 |
| 14 | 28.84 | 8.79 | 28.84 | 8.79 | 28.84 | 8.79 | 28.89 | 8.81 | 28.94 | 8.82 |
| 15 | 28.59 | 8.71 | 29.69 | 9.05 | 29.79 | 9.08 | 29.89 | 9.11 | 29.94 | 9.13 |
| 16 | 30.04 | 9.16 | 30.04 | 9.16 | 30.04 | 9.16 | 29.99 | 9.14 | 29.99 | 9.14 |
| 17 | 29.84 | 9.10 | 29.79 | 9.08 | 29.74 | 9.06 | 29.69 | 9.05 | 29.64 | 9.03 |
| 18 | 29.29 | 8.93 | 29.24 | 8.91 | 29.24 | 8.91 | 29.04 | 8.85 | 28.94 | 8.82 |
| 19 | 28.54 | 8.70 | 28.54 | 8.70 | 28.44 | 8.67 | 28.34 | 8.64 | 28.29 | 8.62 |
| 20 | 27.94 | 8.52 | 27.89 | 8.50 | 27.79 | 8.47 | 27.69 | 8.44 | 27.59 | 8.41 |
| 21 | 27.24 | 8.30 | 27.29 | 8.29 | 27.09 | 8.26 | 27.04 | 8.24 | 26.99 | 8.23 |
| 22 | 26.69 | 8.14 | 26.69 | 8.14 | 26.64 | 8.12 | 26.59 | 8.10 | 26.59 | 8.10 |
| 23 | 26.34 | 8.03 | 26.39 | 8.04 | 26.39 | 8.04 | 26.34 | 8.03 | 26.29 | 8.01 |
| 24 | 26.14 | 7.97 | 26.14 | 7.97 | 26.24 | 8.00 | 26.24 | 8.00 | 26.09 | 7.95 |
| 25 | 26.09 | 7.95 | 26.04 | 7.94 | 25.94 | 7.91 | 25.84 | 7.88 | 25.79 | 7.86 |
| 26 | 25.44 | 7.75 | 25.39 | 7.74 | 25.34 | 7.72 | 25.24 | 7.69 | 24.29 | 7.40 |
| 27 | 25.05 | 7.64 | 25.04 | 7.63 | 24.94 | 7.60 | 24.84 | 7.57 | 24.79 | 7.56 |
| 28 | 24.59 | 7.50 | 24.59 | 7.50 | 24.49 | 7.46 | 24.44 | 7.45 | 24.39 | 7.43 |
| 29 | 24.25 | 7.39 | 24.24 | 7.39 | 24.24 | 7.39 | 24.09 | 7.34 | 24.04 | 7.33 |
| 30 | 23.79 | 7.25 | 23.79 | 7.25 | 23.74 | 7.24 | 23.74 | 7.24 | 23.69 | 7.22 |
| 31 | 23.54 | 7.17 | 23.54 | 7.17 | 23.49 | 7.16 | 23.39 | 7.13 | 23.34 | 7.11 |

PLACE---CHORVARENGA

OCT. 1973

GAUGE NO. 31

B.M. LEVEL 37.17 FEET

| DATE | 0600 HOURS FEET | 0900 HOURS METRES | 0900 HOURS FEET | 1200 HOURS METRES | 1200 HOURS FEET | 1500 HOURS METRES | 1500 HOURS FEET | 1800 HOURS METRES | 1800 HOURS FEET | HOURS METRES |
|------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|-----------------|
| 1 | 30.92 | 9.42 | 30.92 | 9.42 | 30.92 | 9.42 | 30.92 | 9.42 | 30.92 | 9.42 |
| 2 | 30.92 | 9.42 | 30.92 | 9.42 | 30.92 | 9.42 | 30.87 | 9.41 | 30.87 | 9.41 |
| 3 | 30.82 | 9.39 | 30.77 | 9.38 | 30.77 | 9.38 | 30.72 | 9.36 | 30.72 | 9.36 |
| 4 | 30.57 | 9.32 | 30.57 | 9.32 | 30.57 | 9.32 | 30.52 | 9.30 | 30.52 | 9.30 |
| 5 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 |
| 6 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 | 30.47 | 9.29 |
| 7 | 30.32 | 9.24 | 30.27 | 9.23 | 30.27 | 9.23 | 30.22 | 9.21 | 30.22 | 9.21 |
| 8 | 30.12 | 9.18 | 30.12 | 9.18 | 30.07 | 9.17 | 30.07 | 9.17 | 30.07 | 9.17 |
| 9 | 30.02 | 9.15 | 30.02 | 9.15 | 29.97 | 9.13 | 29.97 | 9.13 | 29.97 | 9.13 |
| 10 | 29.97 | 9.13 | 29.97 | 9.13 | 29.97 | 9.13 | 30.02 | 9.15 | 30.02 | 9.15 |
| 11 | 30.07 | 9.17 | 30.07 | 9.17 | 30.02 | 9.15 | 30.02 | 9.15 | 30.02 | 9.15 |
| 12 | 30.02 | 9.15 | 30.02 | 9.15 | 30.02 | 9.15 | 30.07 | 9.17 | 30.07 | 9.17 |
| 13 | 29.92 | 9.12 | 29.87 | 9.10 | 29.87 | 9.10 | 29.87 | 9.10 | 29.87 | 9.10 |
| 14 | 29.82 | 9.09 | 29.82 | 9.09 | 29.87 | 9.10 | 29.92 | 9.12 | 30.07 | 9.17 |
| 15 | 30.67 | 9.35 | 30.77 | 9.38 | 30.82 | 9.39 | 30.87 | 9.41 | 30.92 | 9.42 |
| 16 | 31.22 | 9.52 | 31.22 | 9.52 | 31.22 | 9.52 | 31.17 | 9.50 | 31.17 | 9.50 |
| 17 | 30.92 | 9.42 | 30.87 | 9.41 | 30.82 | 9.39 | 30.77 | 9.38 | 30.72 | 9.36 |
| 18 | 30.37 | 9.26 | 30.32 | 9.24 | 30.27 | 9.23 | 30.17 | 9.20 | 30.07 | 9.17 |
| 19 | 29.72 | 9.06 | 29.67 | 9.04 | 29.62 | 9.03 | 29.52 | 9.00 | 29.42 | 8.97 |
| 20 | 29.02 | 8.85 | 28.92 | 8.81 | 28.87 | 8.80 | 28.82 | 8.78 | 28.77 | 8.77 |
| 21 | 28.42 | 8.66 | 28.37 | 8.65 | 28.32 | 8.63 | 28.27 | 8.62 | 28.17 | 8.59 |
| 22 | 27.92 | 8.51 | 27.87 | 8.49 | 27.82 | 8.48 | 27.77 | 8.46 | 27.72 | 8.45 |
| 23 | 27.47 | 8.37 | 27.42 | 8.36 | 27.42 | 8.36 | 27.37 | 8.34 | 27.32 | 8.33 |
| 24 | 27.22 | 8.30 | 27.17 | 8.28 | 27.19 | 8.29 | 27.12 | 8.27 | 27.12 | 8.27 |
| 25 | 26.92 | 8.21 | 26.87 | 8.19 | 26.82 | 8.17 | 26.77 | 8.16 | 26.77 | 8.16 |
| 26 | 26.82 | 8.17 | 26.47 | 8.09 | 26.42 | 8.05 | 26.37 | 8.04 | 26.37 | 8.04 |
| 27 | 26.07 | 7.95 | 26.02 | 7.93 | 25.97 | 7.92 | 25.92 | 7.90 | 25.87 | 7.89 |
| 28 | 25.62 | 7.81 | 25.57 | 7.79 | 25.52 | 7.78 | 25.52 | 7.78 | 25.47 | 7.76 |
| 29 | 25.27 | 7.70 | 25.22 | 7.69 | 25.17 | 7.67 | 25.12 | 7.66 | 25.07 | 7.64 |
| 30 | 24.82 | 7.57 | 24.77 | 7.55 | 24.72 | 7.53 | 24.67 | 7.52 | 24.62 | 7.50 |
| 31 | 24.07 | 7.34 | 24.42 | 7.44 | 24.37 | 7.43 | 24.32 | 7.41 | 24.34 | 7.42 |

Material - 3

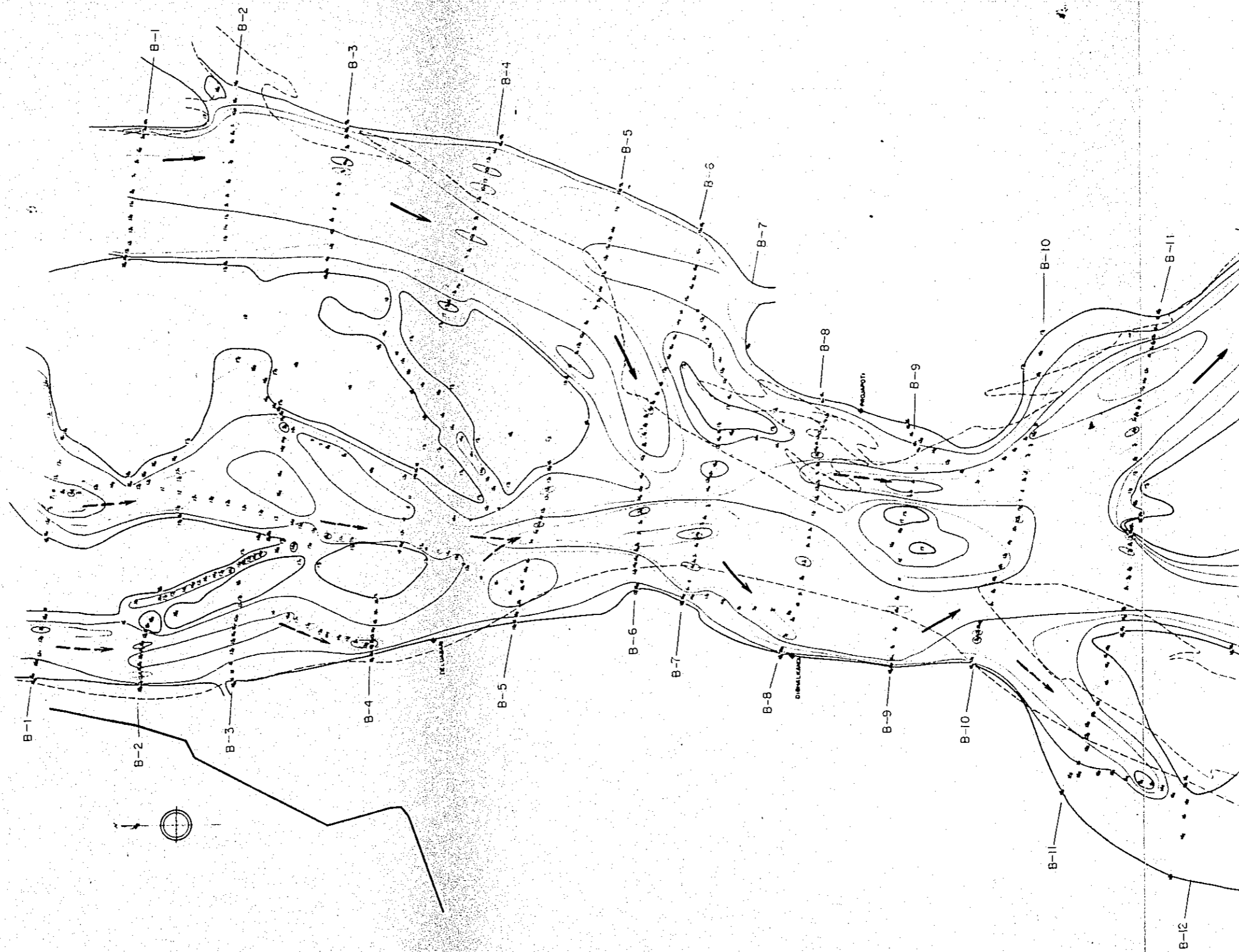
Bathymetric Chart

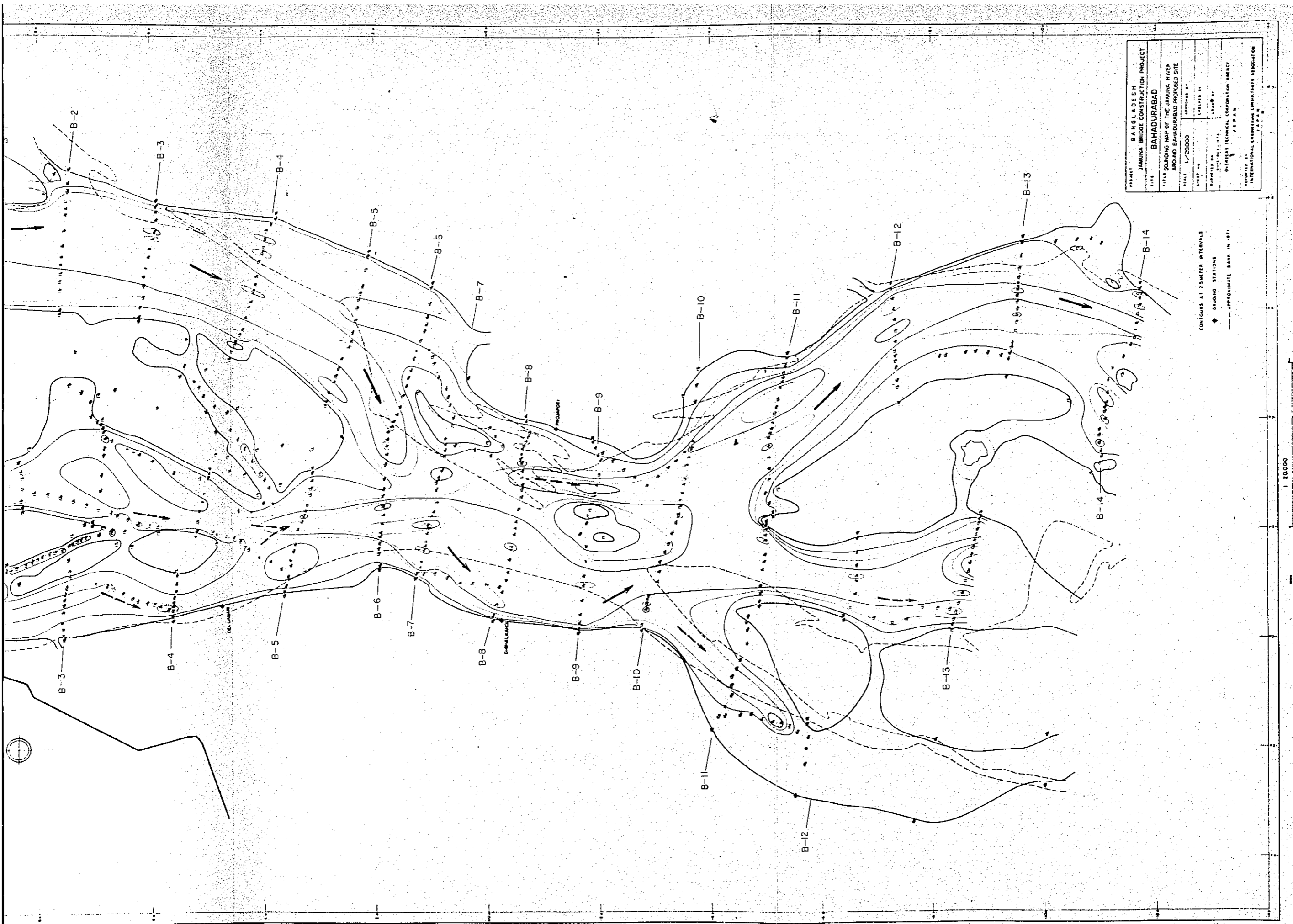
and

Cross - Sectional Chart

of The River

BAHADURABAD



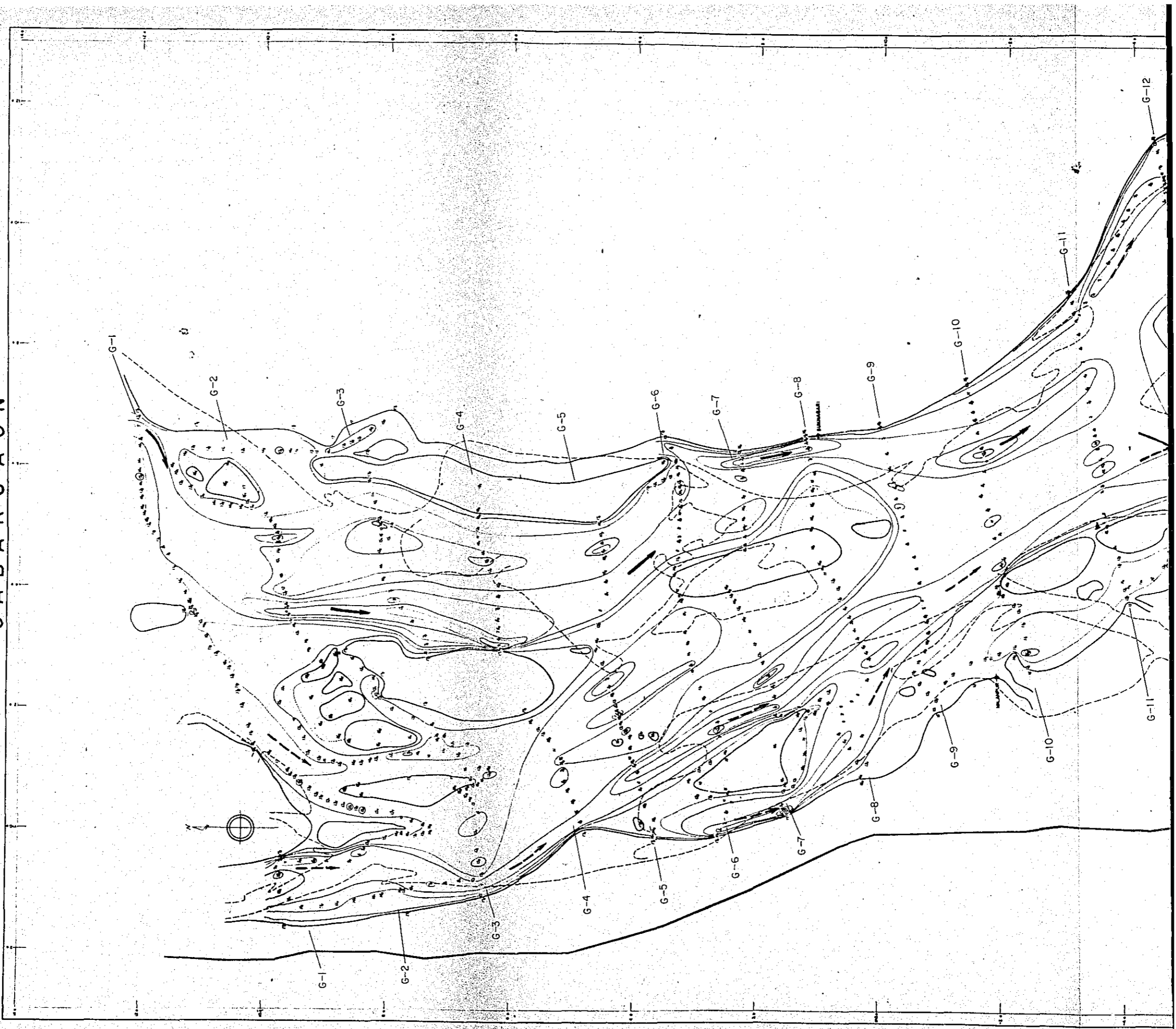


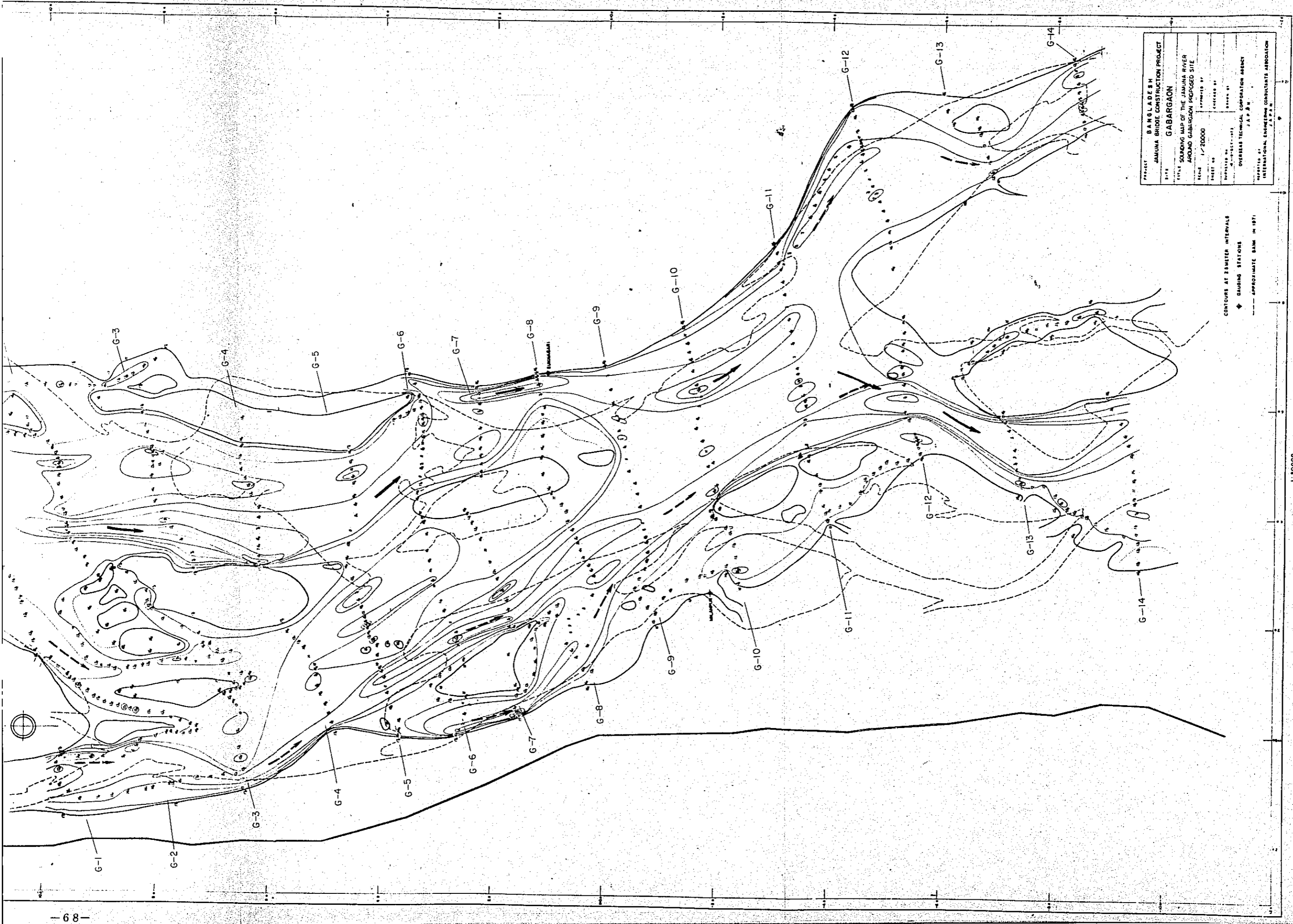
PROJECT: BANGLADESH
 JAMUNA BRIDGE CONSTRUCTION PROJECT
 1114 BAHADURABAD
 1114 SOUVENIR MAP OF THE JAMUNA RIVER
 AROUND BAHADURABAD PROPOSED SITE
 SCALE: 1/20000
 SHEET NO. APPROX. 21
 DRAWN BY: M. S. H. H. H.
 CHECKED BY: M. S. H. H. H.
 OVERSEAS TECHNICAL CORPORATION AGENCY
 J. S. P. A. N.
 MEMBERSHIP IN:
 INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION

CONTOURS AT 25 METER INTERVALS
 ◆ BRIDGE STATIONS
 --- APPROXIMATE BANK IN 1971

1:10000

G A B A R G A O N



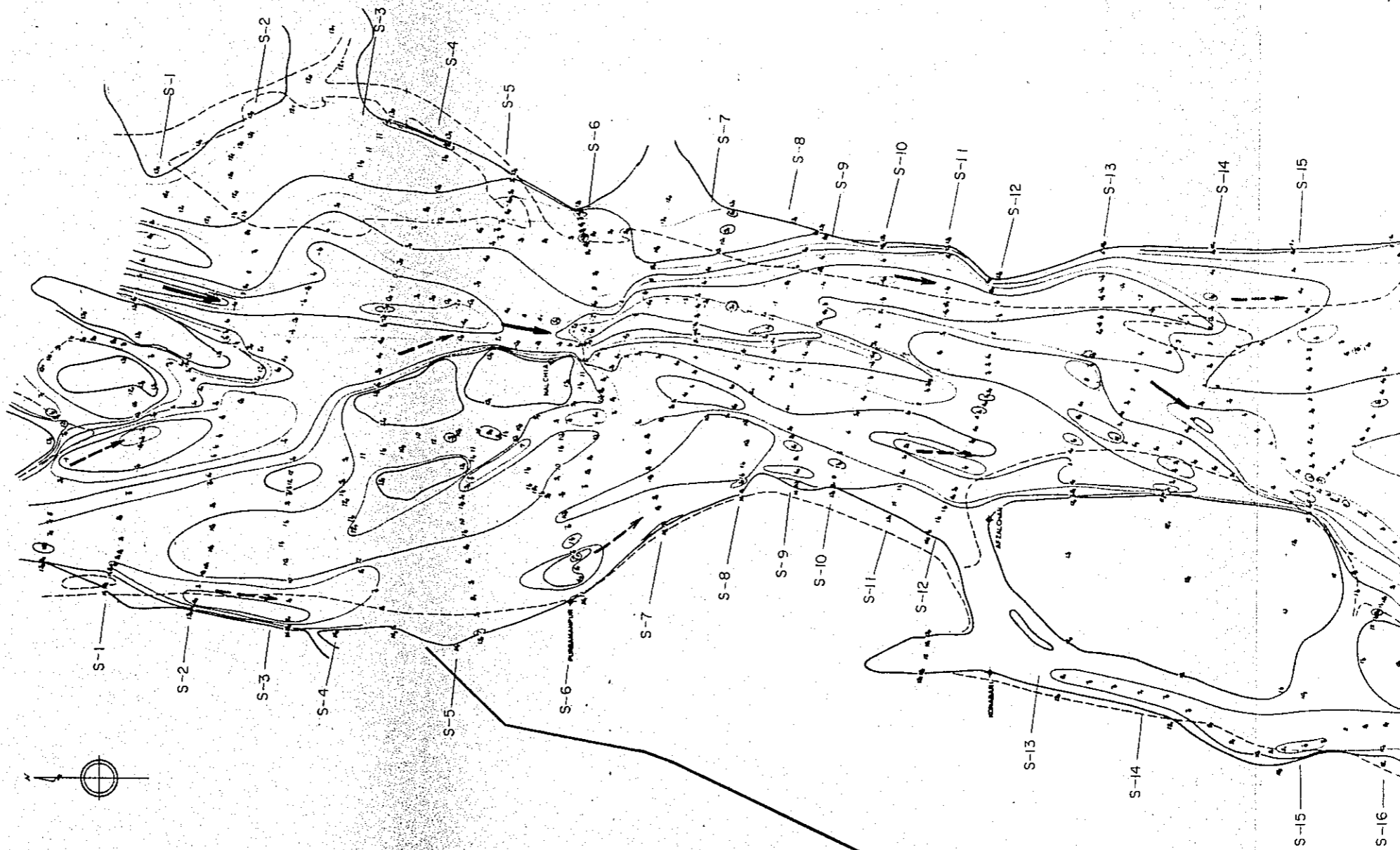


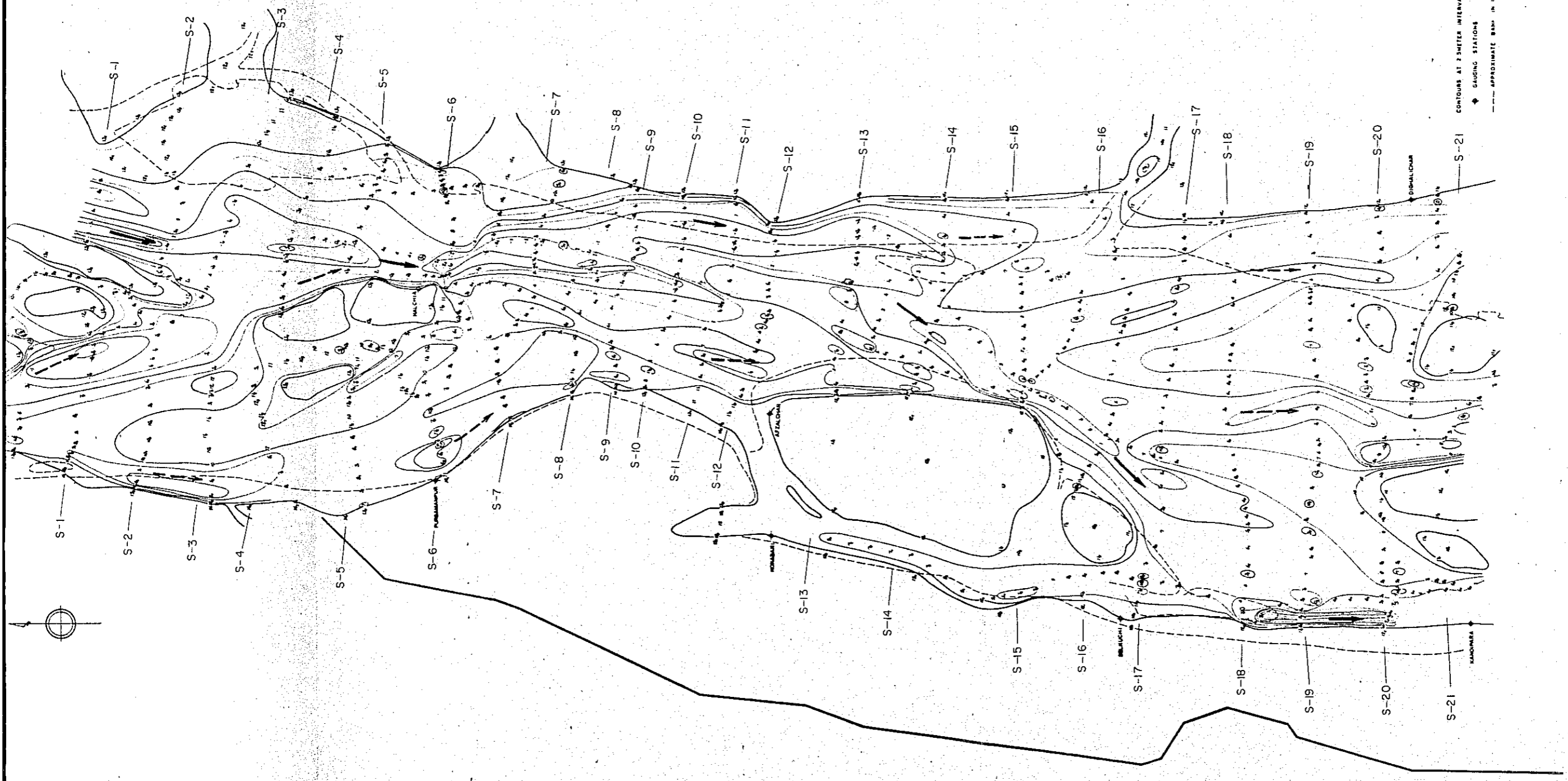
PROJECT: BANGLADESH
 JAMUNA BRIDGE CONSTRUCTION PROJECT
 SITE: GABARGAON
 TITLE: SOLIDING MAP OF THE JAMUNA RIVER
 AROUND GABARGAON PROPOSED SITE
 SCALE: 1/20000
 DRAWN BY: J.A.P.M.
 CHECKED BY: J.A.P.M.
 SUPERVISOR: J.A.P.M.
 APPROVED BY: J.A.P.M.
 ORGANIZATION: OVERSEAS TECHNICAL CORPORATION AGENCY
 REPORTED BY: INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION
 J.A.P.M.

CONTOURS AT 25 METER INTERVALS
 ◆ GAUGING STATIONS
 --- APPROXIMATE BANK IN 1971

1:10000

S I R A J G A N J



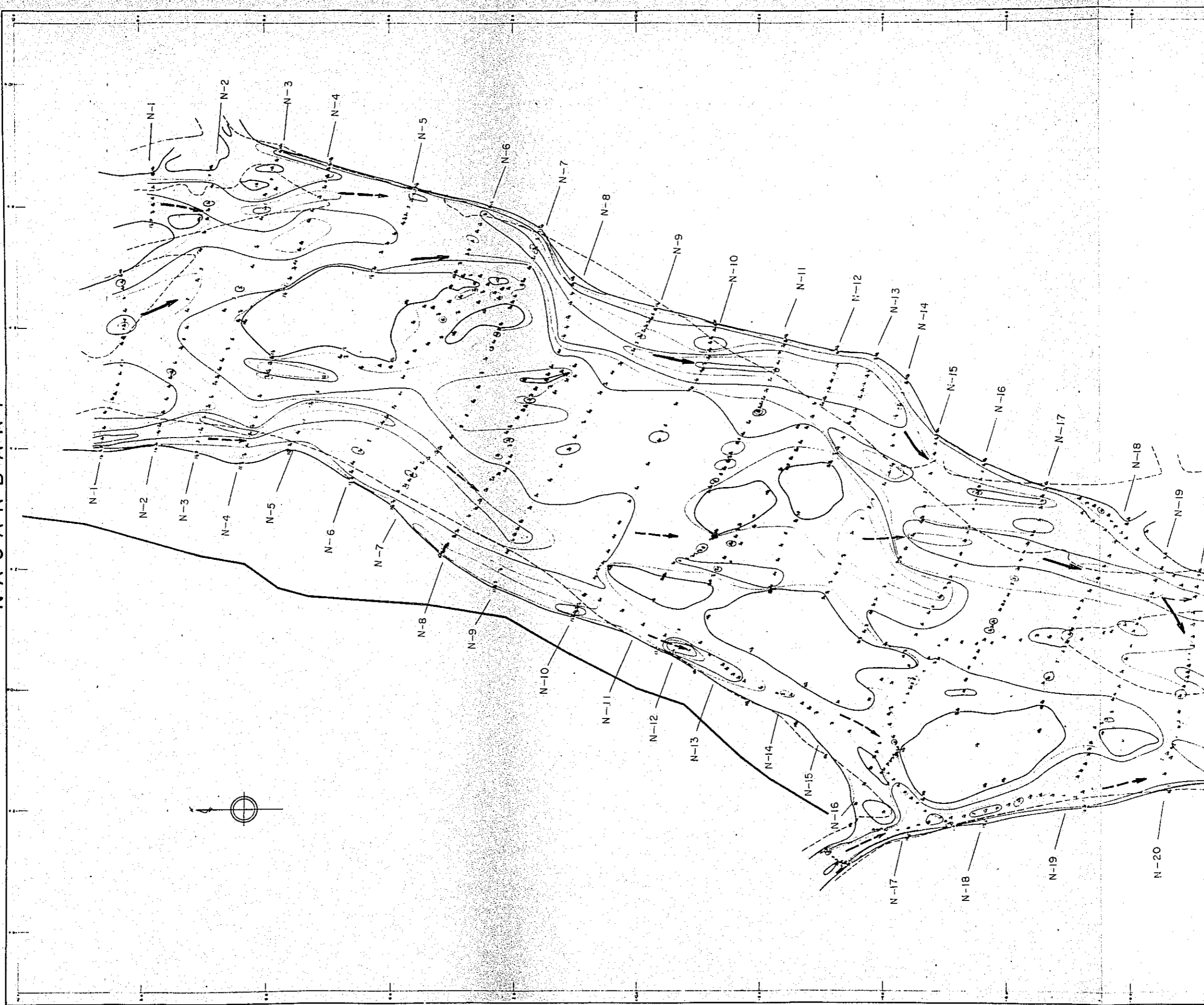


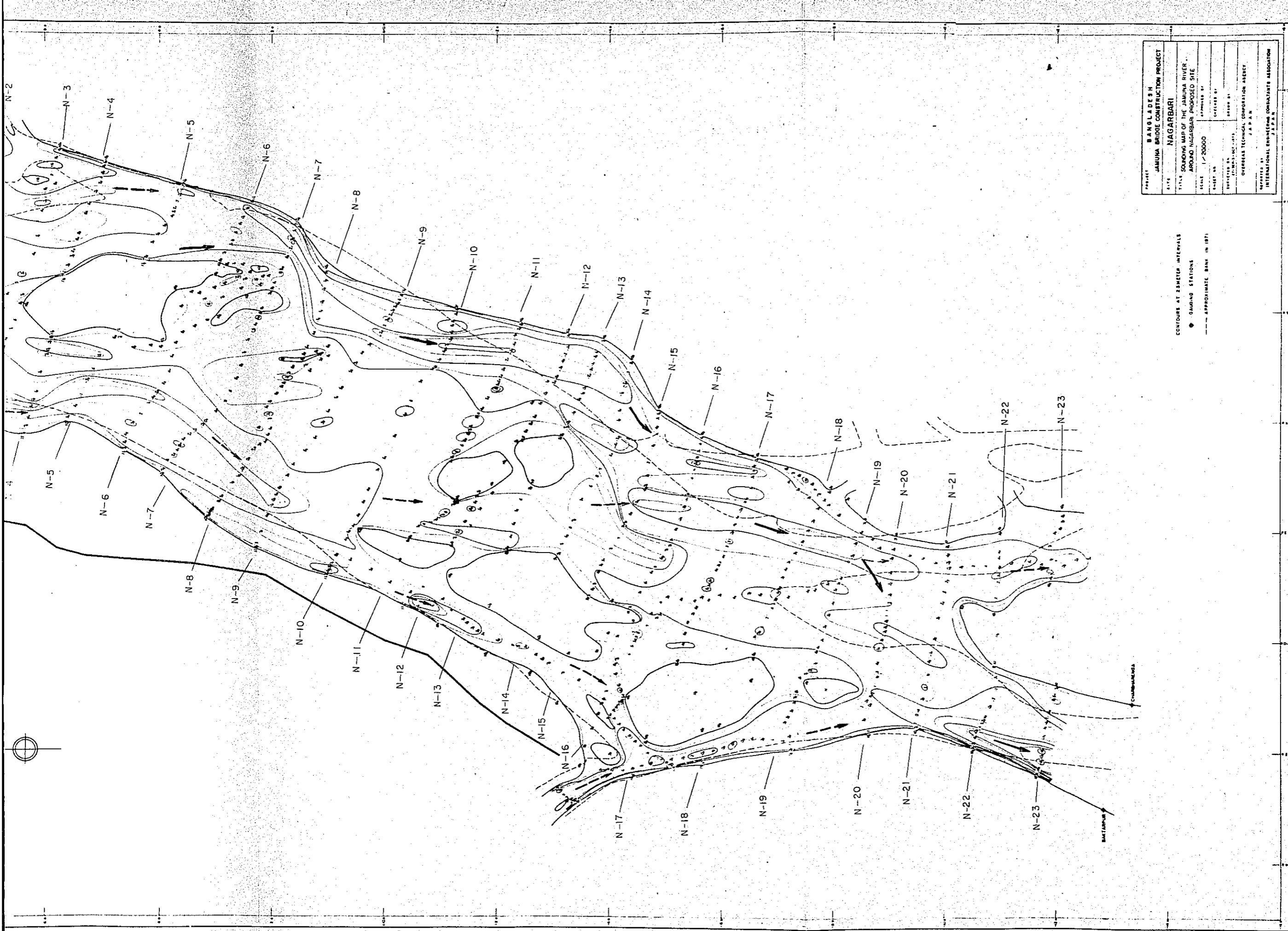
| | | | |
|---|--|---|--|
| PROJECT | | BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | | SIRAJGANJ | |
| SITE | | SOUNDING MAP OF THE JAMUNA RIVER AROUND SIRAJGANJ PROPOSED SITE | |
| SCALE | | 1:25000 | |
| SHEET NO. | | CHECKED BY | |
| DATE | | DRAWN BY | |
| APPROVED BY | | OVERSEER TECHNICAL CORPORATION AGENCY | |
| REPORTED BY | | I. P. S. S. | |
| INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION | | | |

CONTOURS AT 2 METER INTERVALS
 ◆ GAUGING STATIONS
 --- APPROXIMATE BANK IN 1971

1:25,000

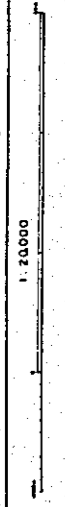
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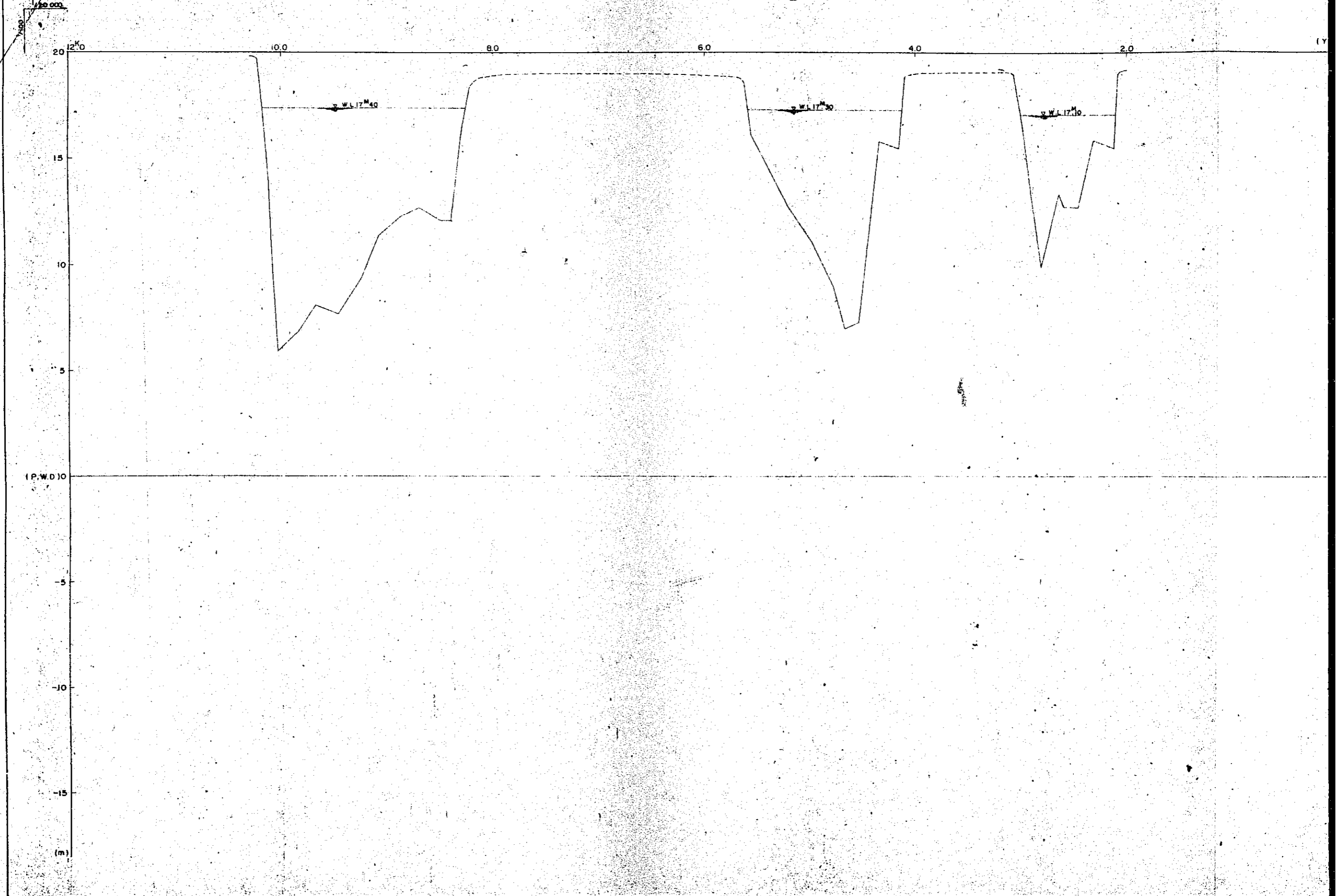


| | |
|------------------------------------|---|
| PROJECT | BANGLADESH |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | NAGARBHARI |
| TITLE | SOUNDING MAP OF THE JAMUNA RIVER |
| AROUND NAGARBHARI PROPOSED SITE | |
| SCALE | 1/20000 |
| APPROVED BY | |
| DRAWN BY | |
| CHECKED BY | |
| DATE | |
| PROJECT NO. | |
| REPORTED BY | OVERSEA TECHNICAL CORPORATION ASSEY |
| | JAPAN |
| | INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION |
| | JAPAN |

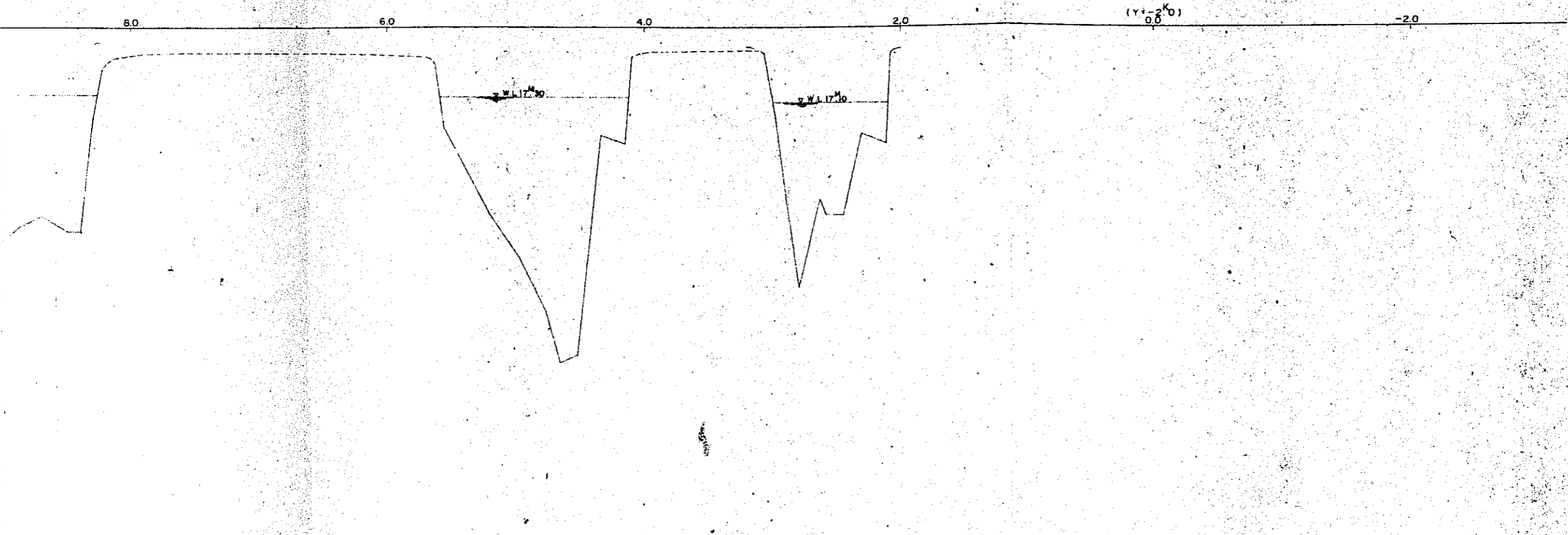
CONTOURS AT 25METER INTERVALS
 ● GAUGING STATIONS
 --- APPROXIMATE BANK IN 1971



B-1

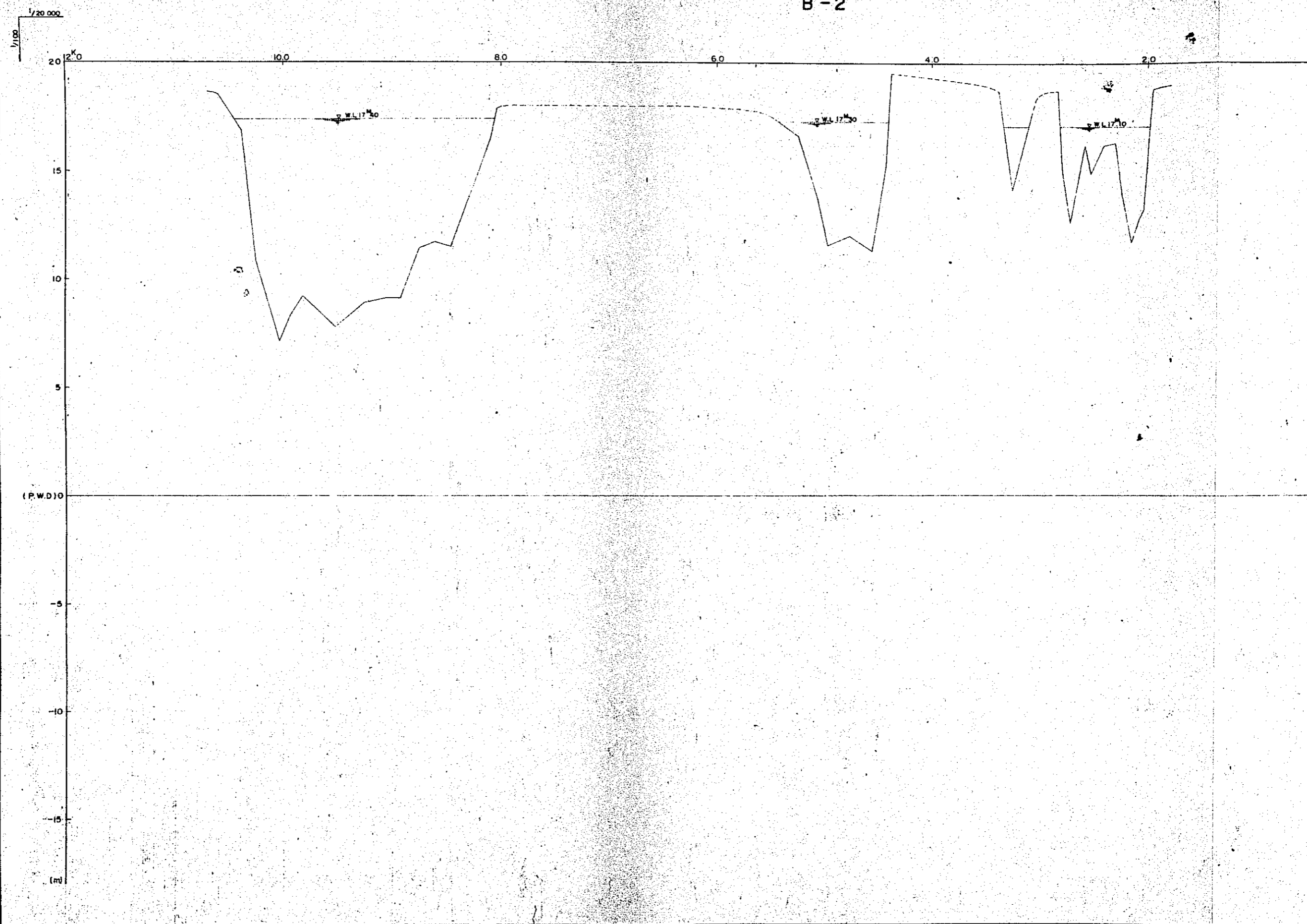


B - 1

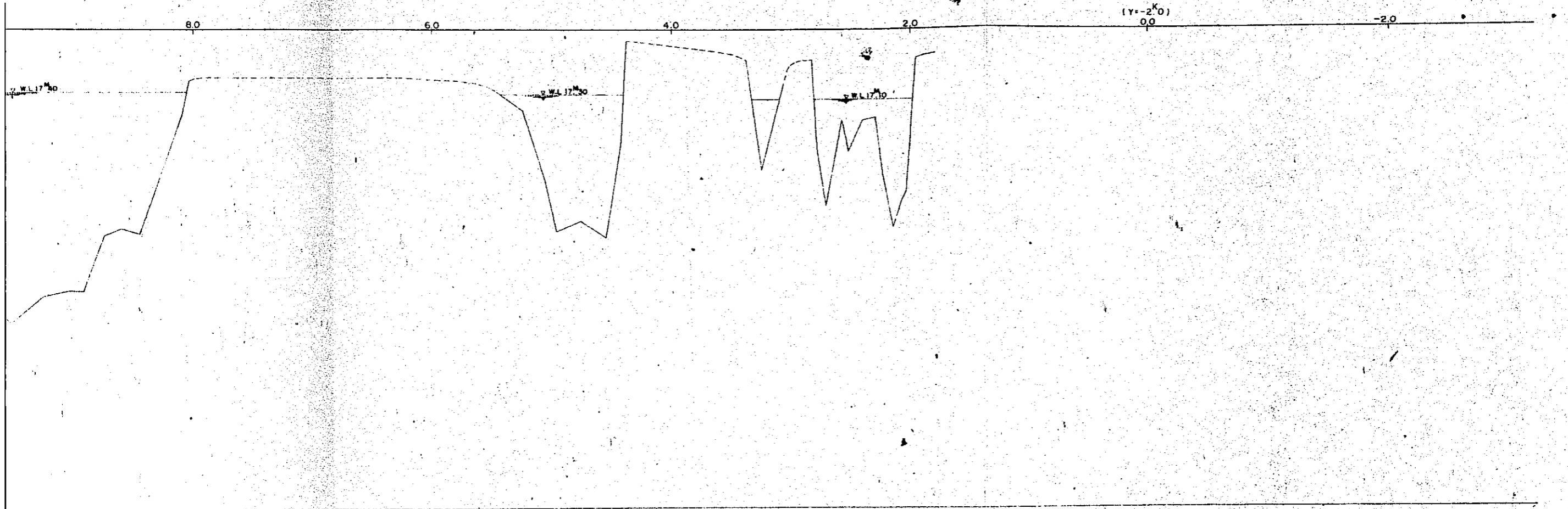


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|---|-------------|
| PROJECT BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 1 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-2'

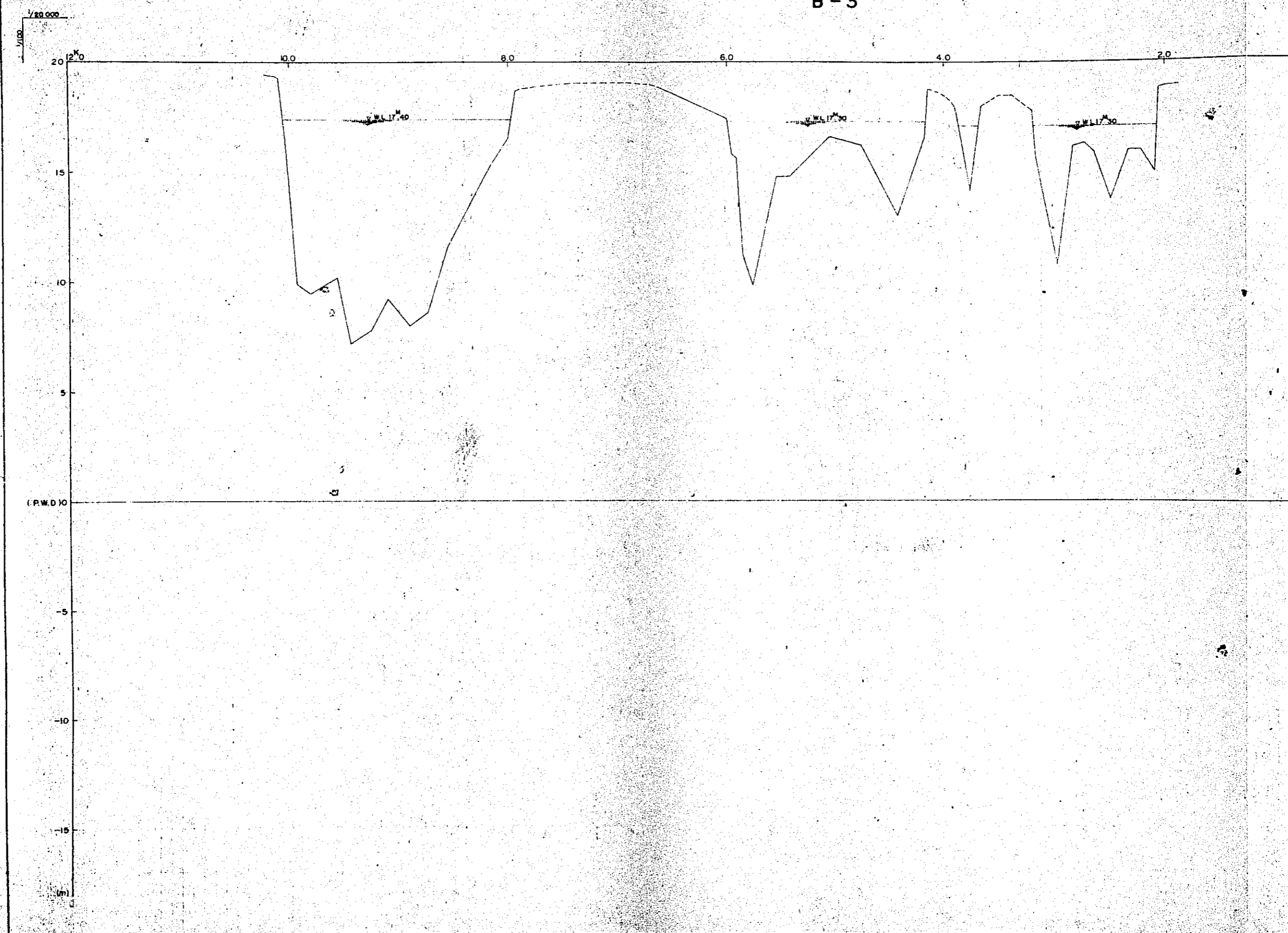


B-2

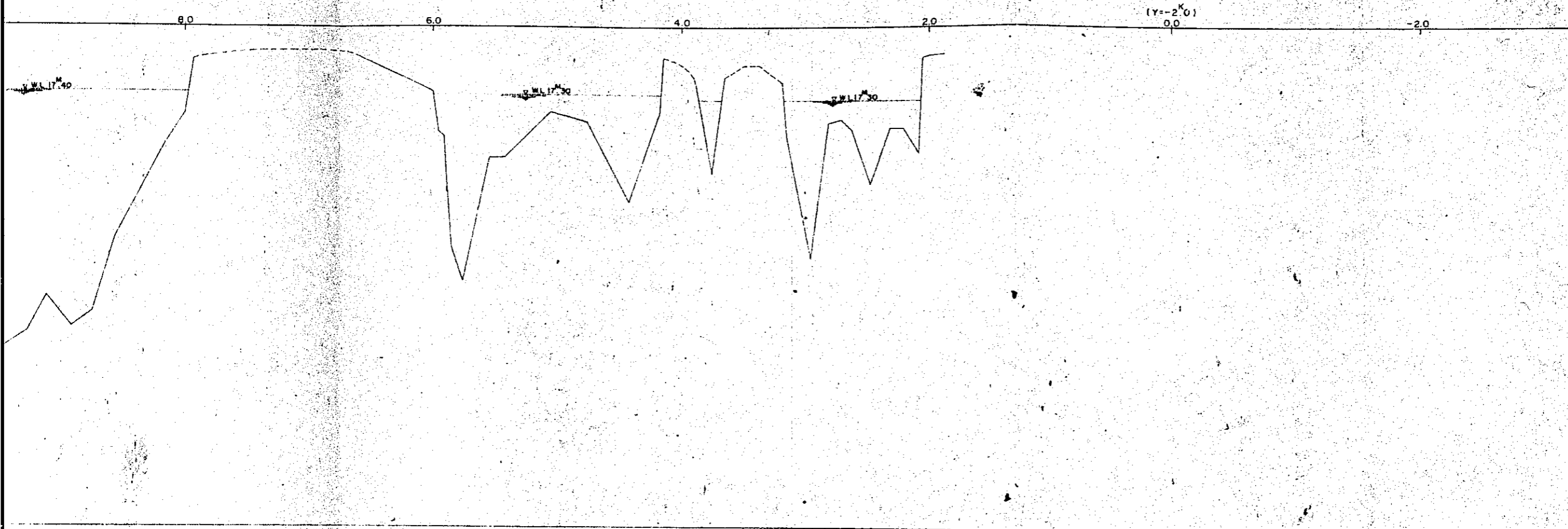


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| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20,000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 2 | CHECKED BY |
| SURVEYED ON 9-15-OCT-1973 | DRAWN BY |
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| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-3

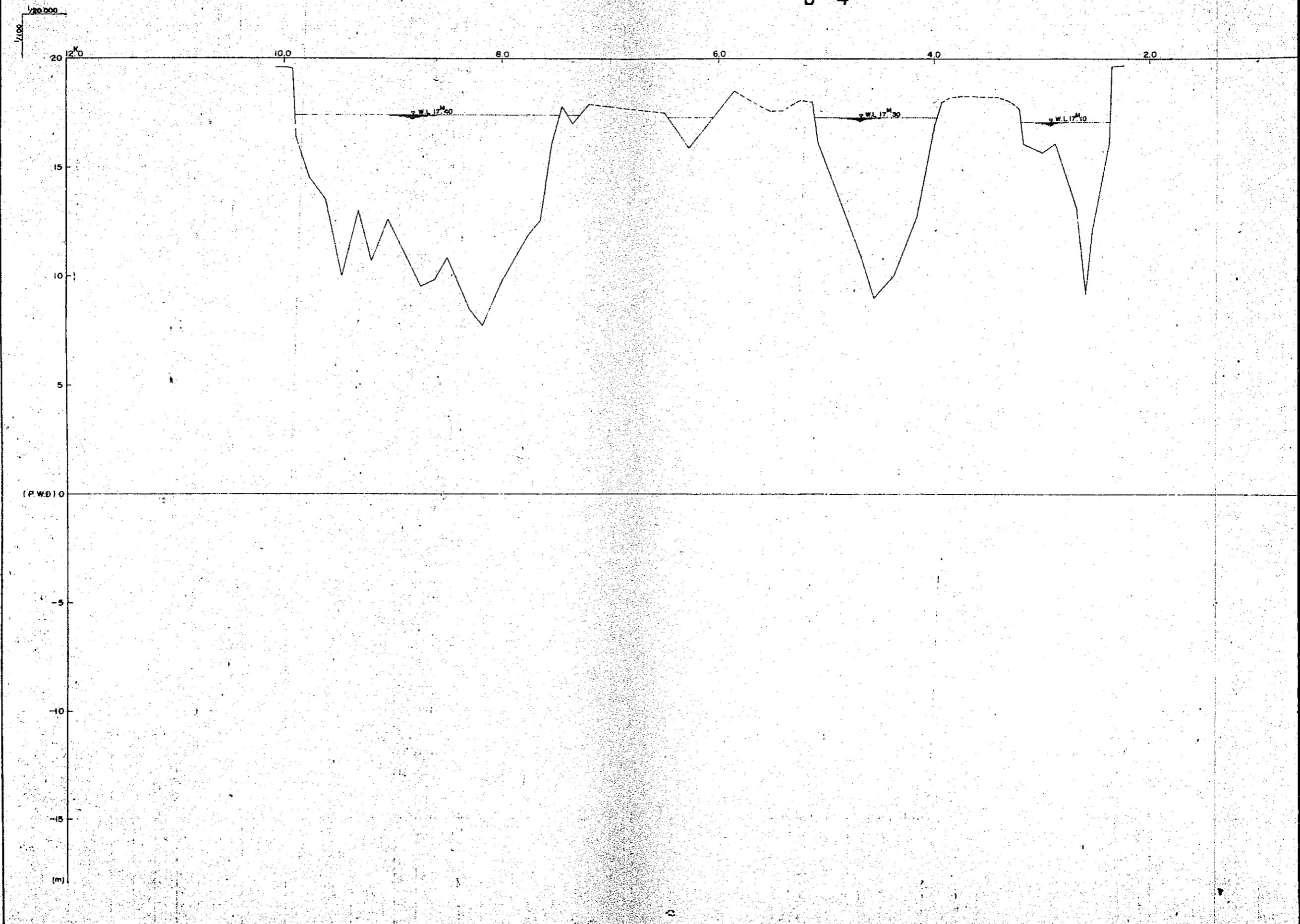


B-3

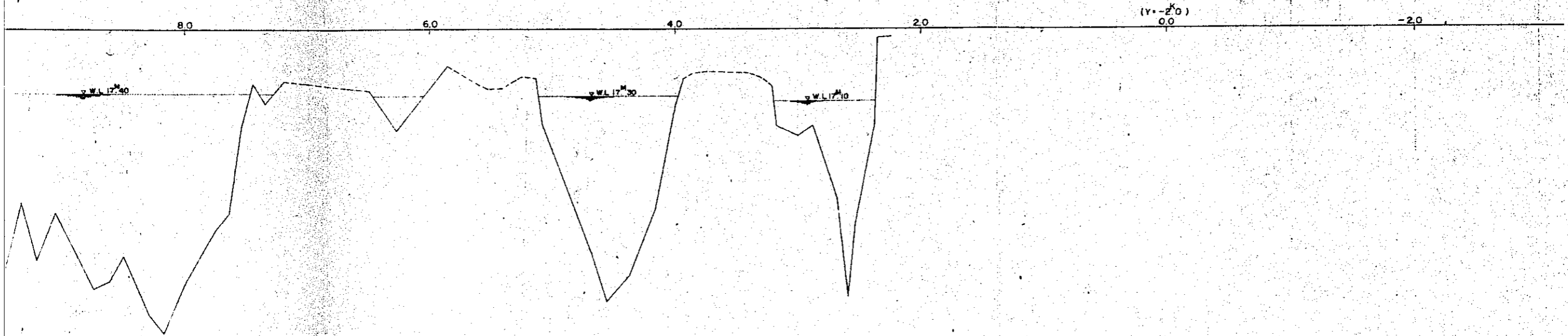


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|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 3 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT. - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-4

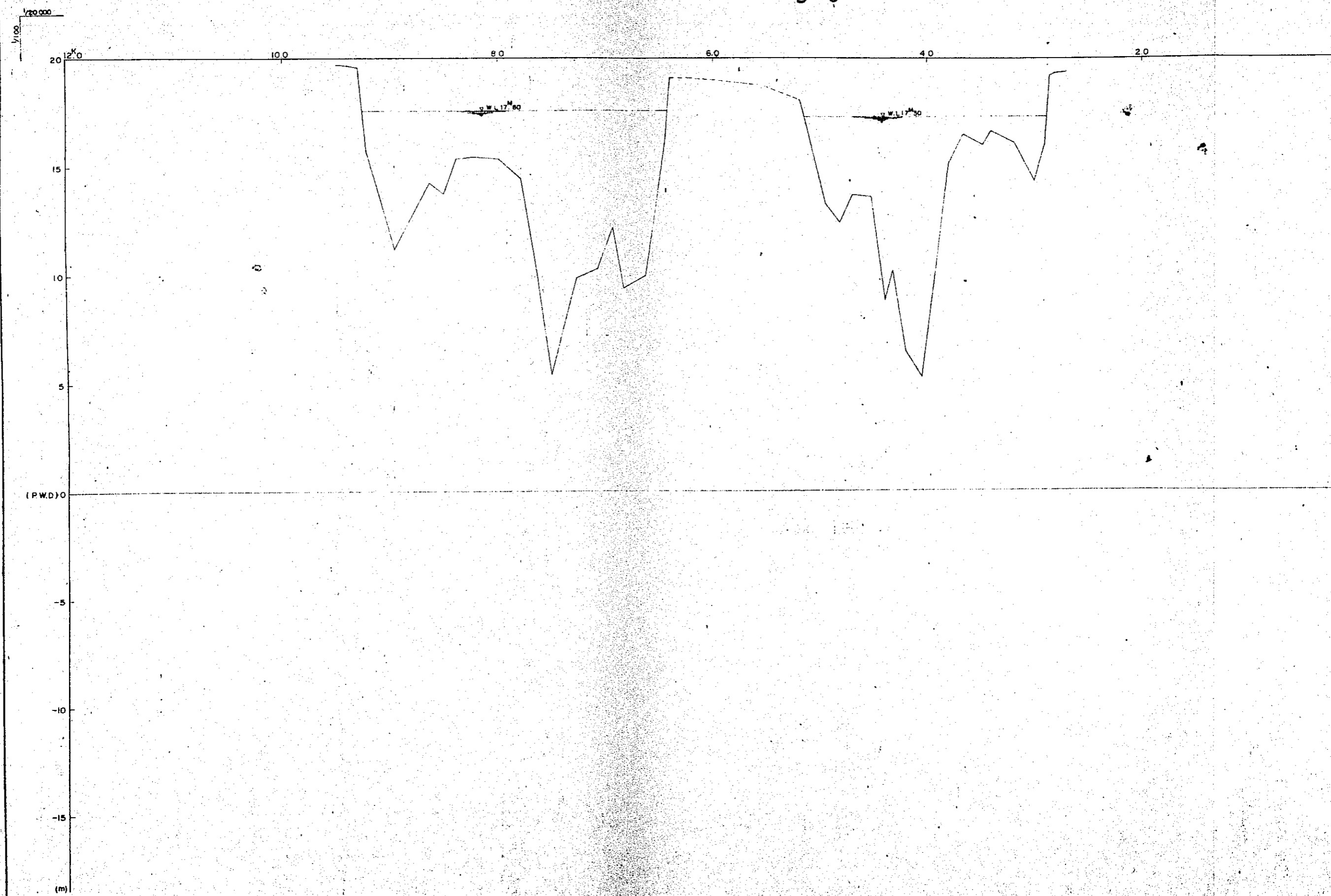


B-4

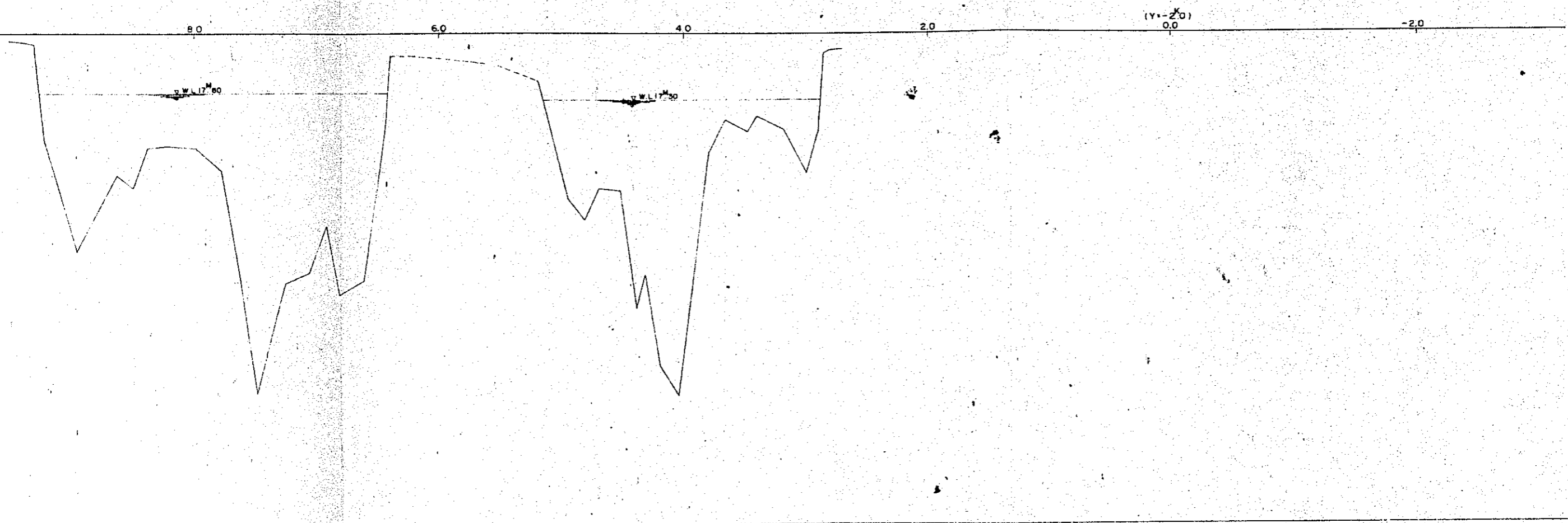


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|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 4 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-5



B-5

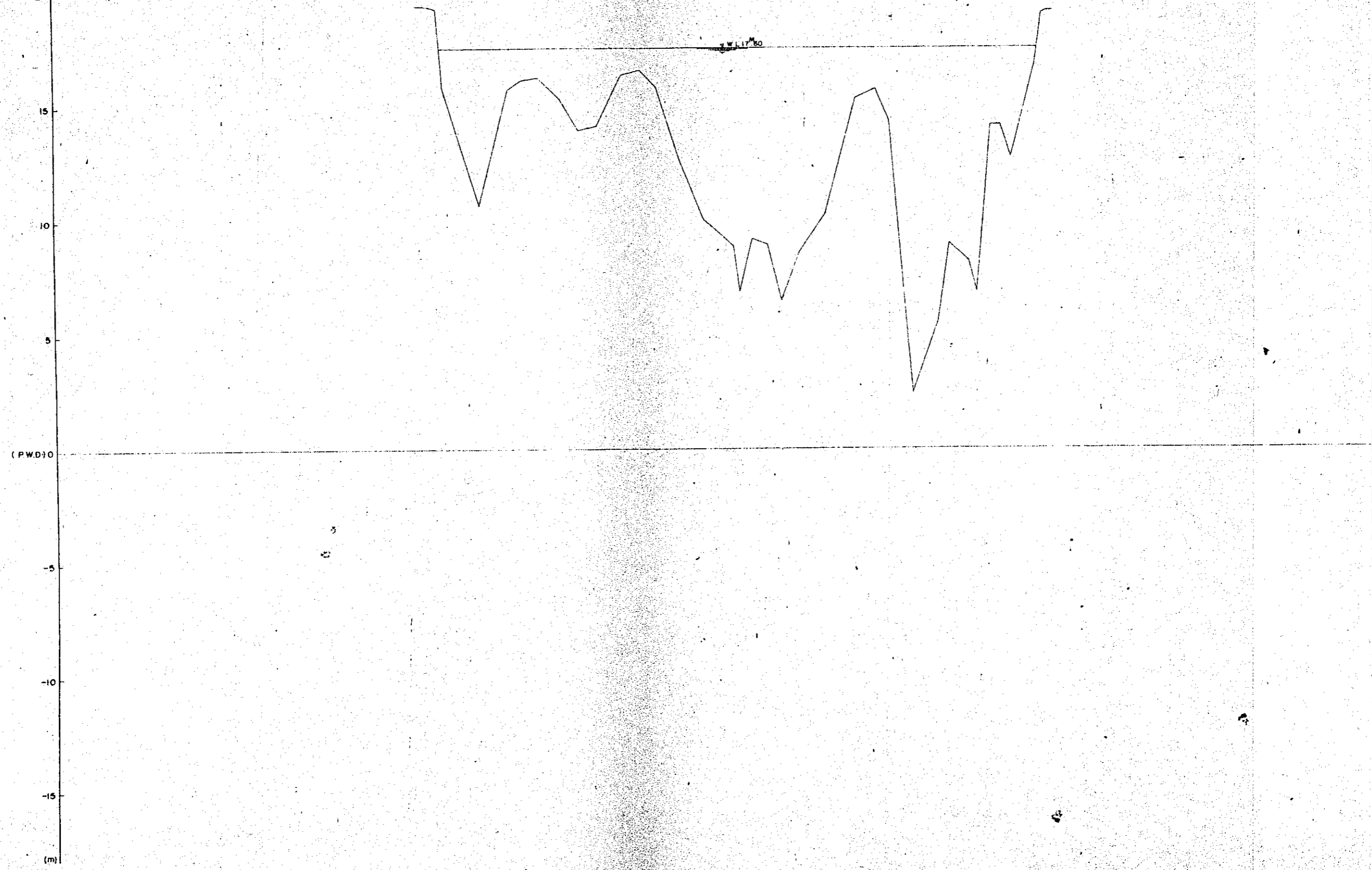


| | |
|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO. B - 5 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT. - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY J A P A N | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION J A P A N | |

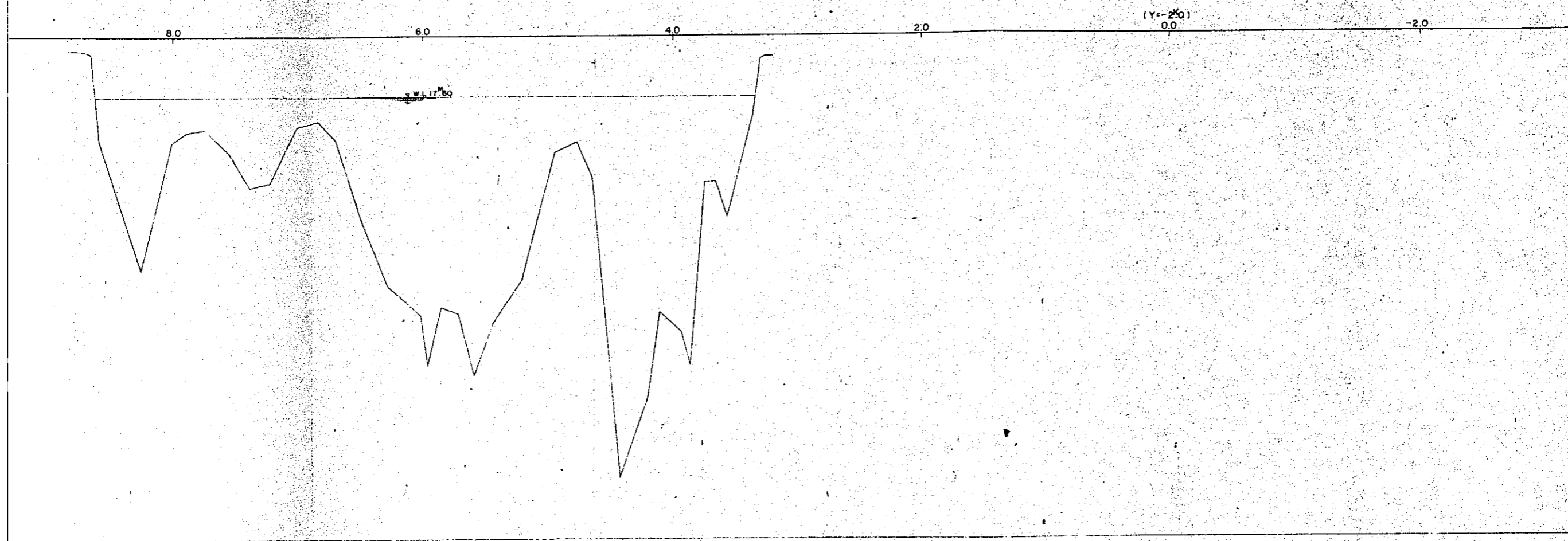
B-6

1/2000
1/100

20 100 80 60 40 20



B-6

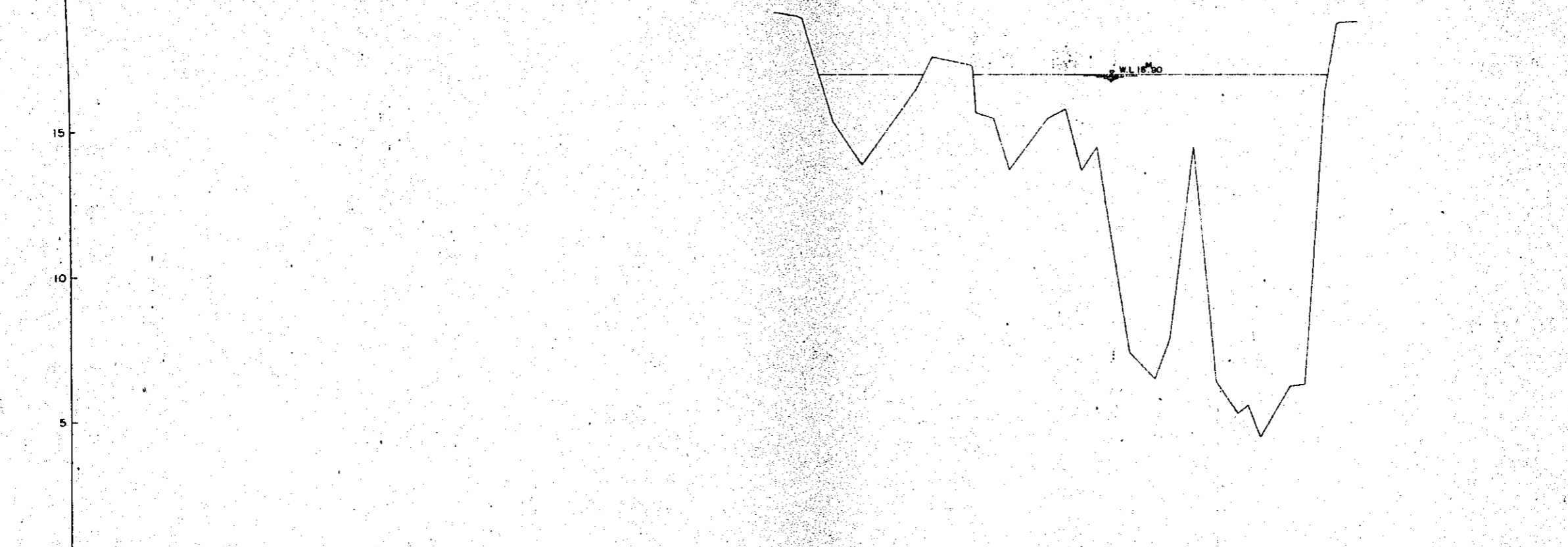


| | |
|---|-------------|
| PROJECT BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 6 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-7

1/20000
1/100

20 12.0 10.0 8.0 6.0 4.0 2.0



(P.W.D) 0

-5

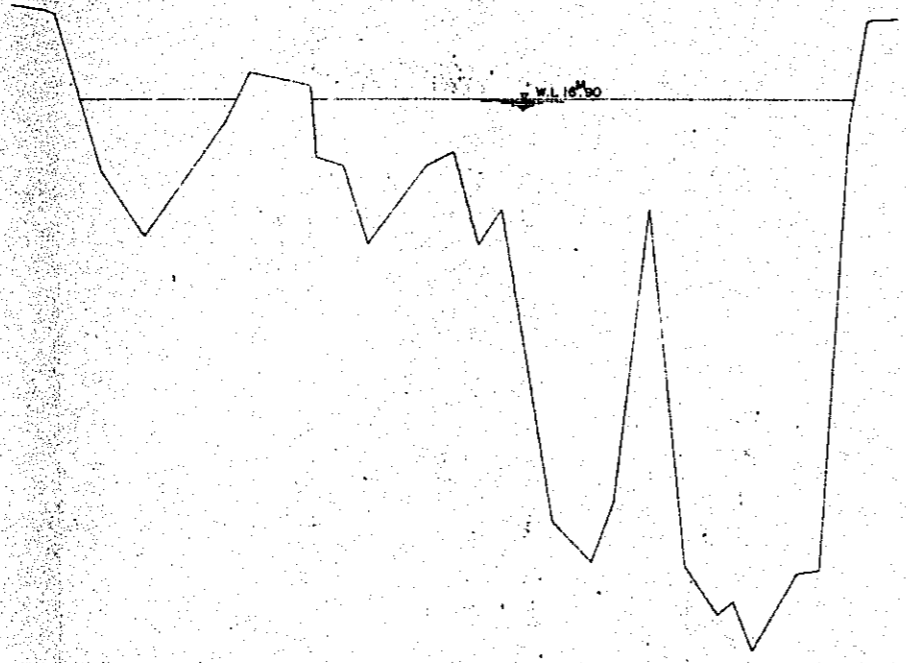
-10

-15

(97)

B-7

6.0 6.0 4.0 2.0 (Y=-2.0) 0.0 -2.0



| | |
|--|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 7 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-8

1/20000

20 12.0

10.0

8.0

6.0

4.0

2.0

15

10

5

(P.W.D) 0

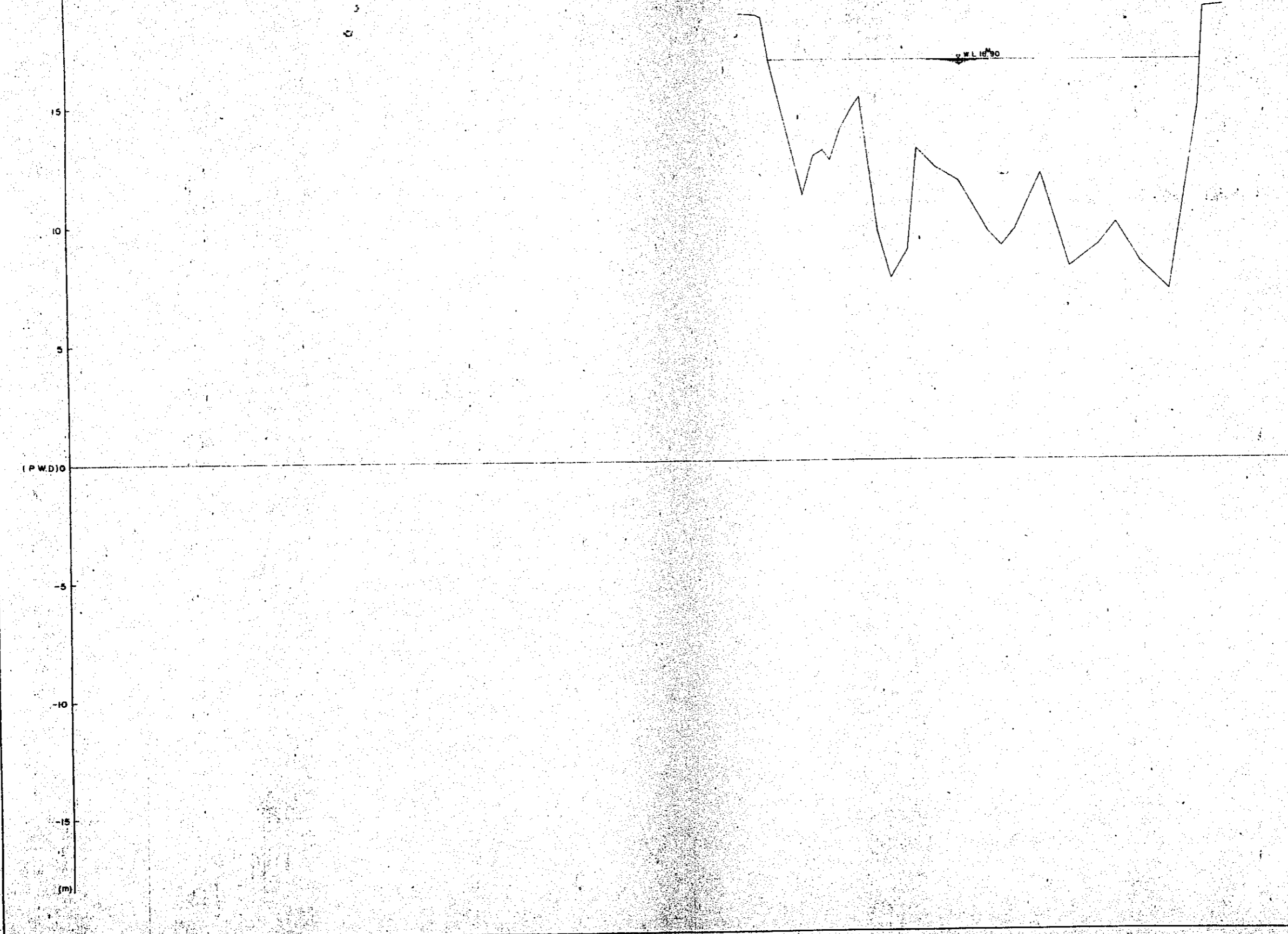
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-10

-15

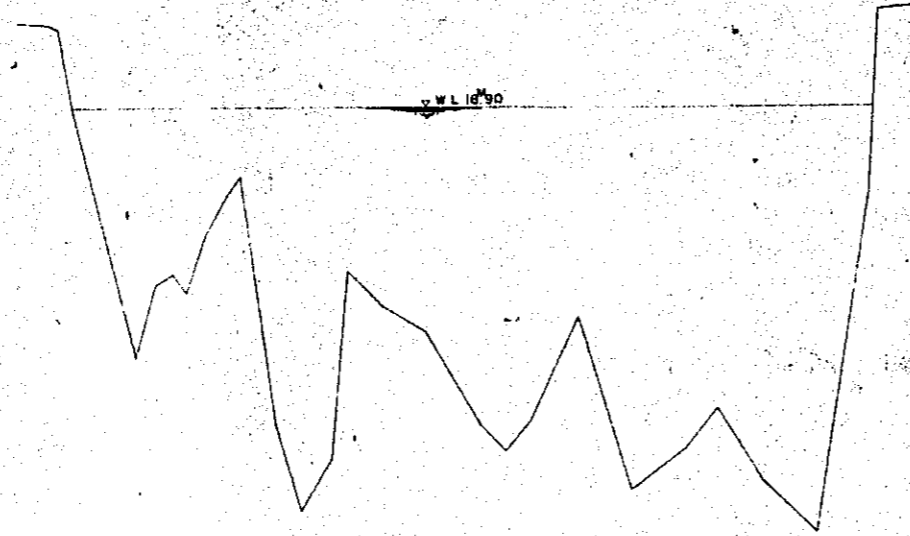
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W.L. 1990



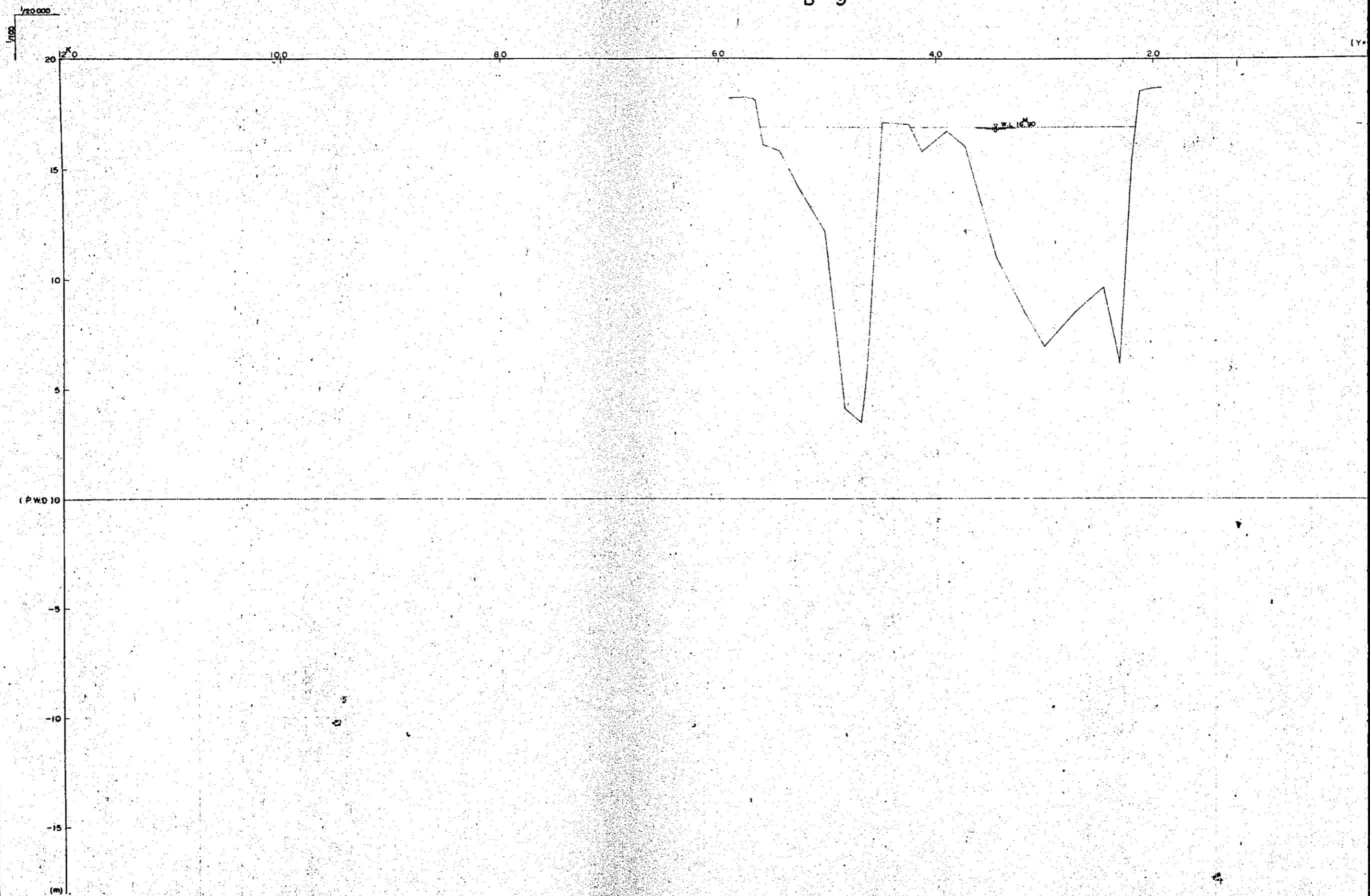
B-8

8.0 6.0 4.0 2.0 (1+2'0) 0.0 -2.0



| | |
|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 8 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-9



B-9

80

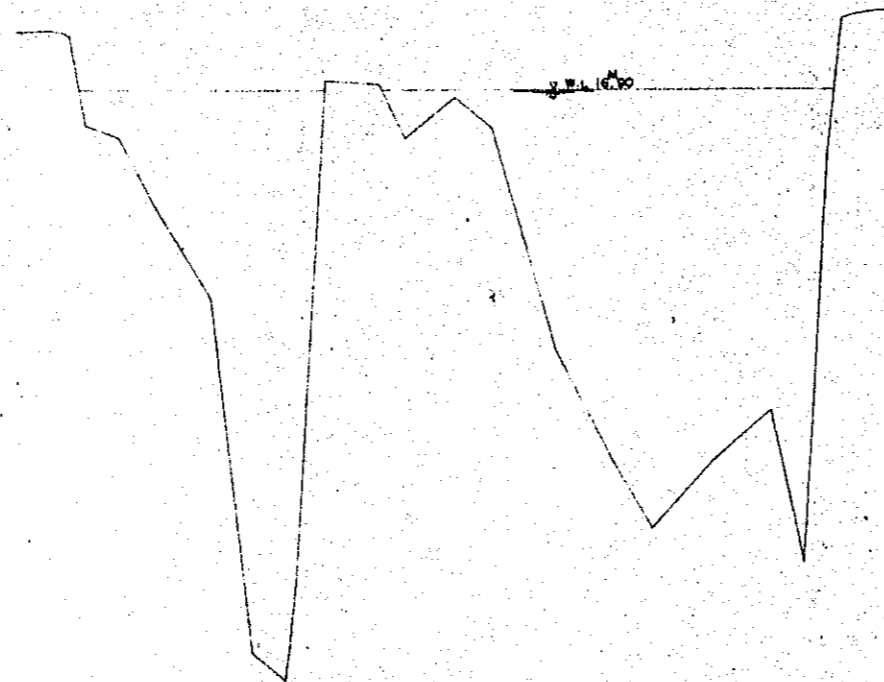
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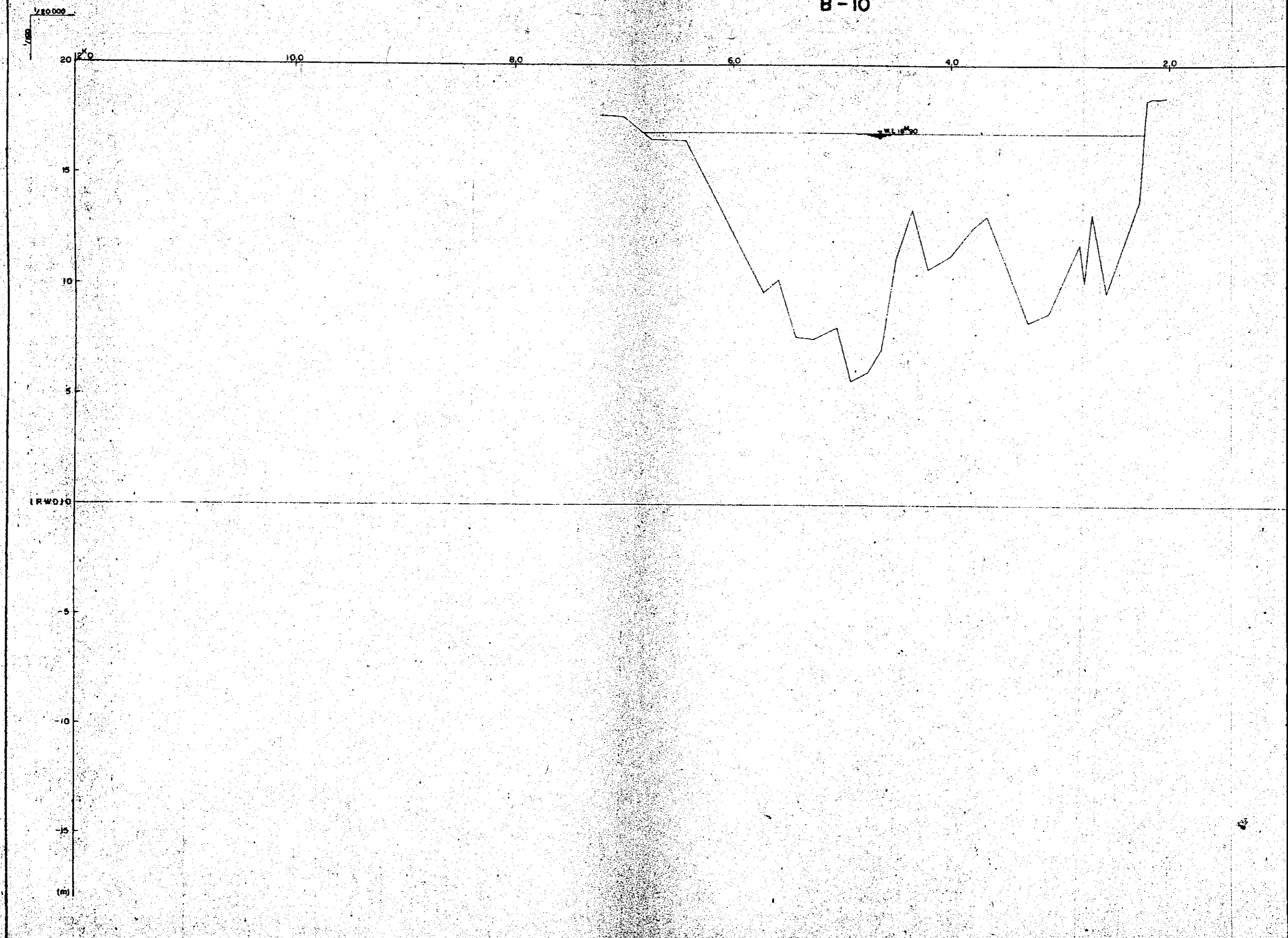
(Y=20)
0.0

-20



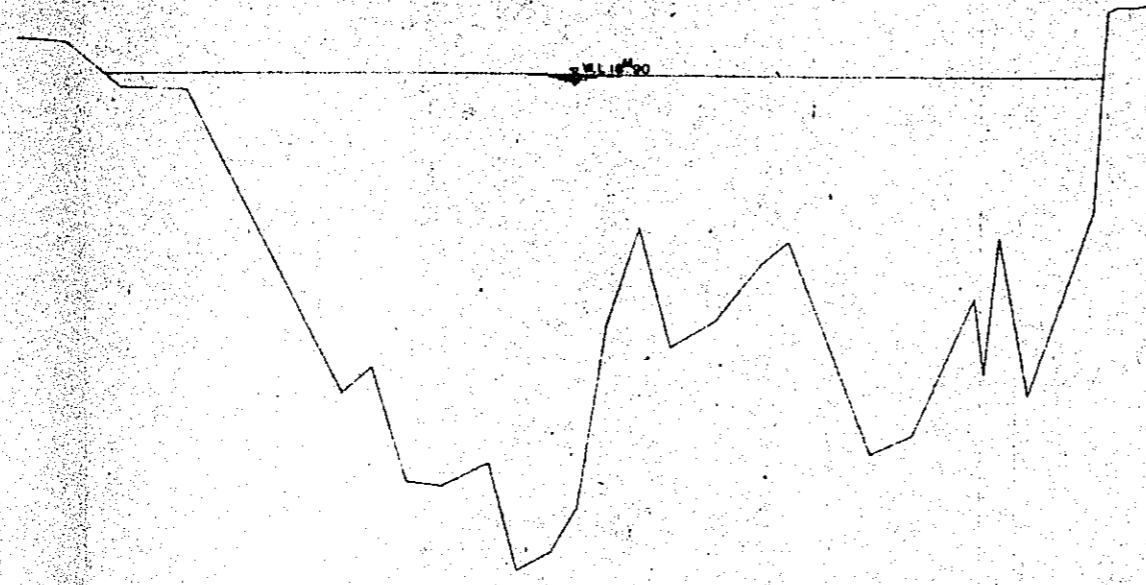
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|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | | | |
| SITE | | BAHADURABAD | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE | H = 1 / 20 000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | B - 9 | CHECKED BY | |
| SURVEYED ON | 9 - 15 - OCT. - 1973 | DRAWN BY | |
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| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

B-10



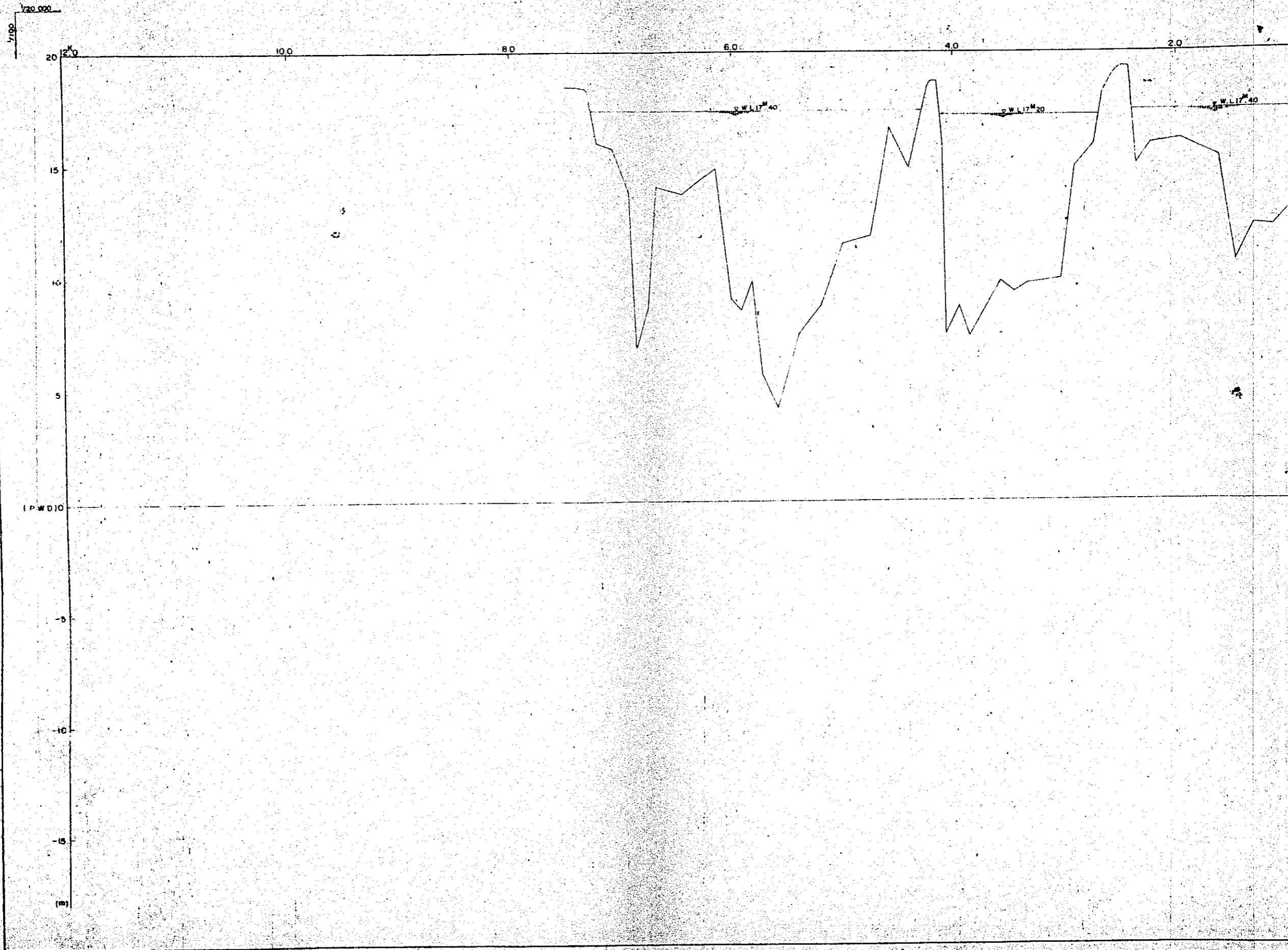
B-10

8.0 6.0 4.0 2.0 (Y=0) 0.0 -2.0



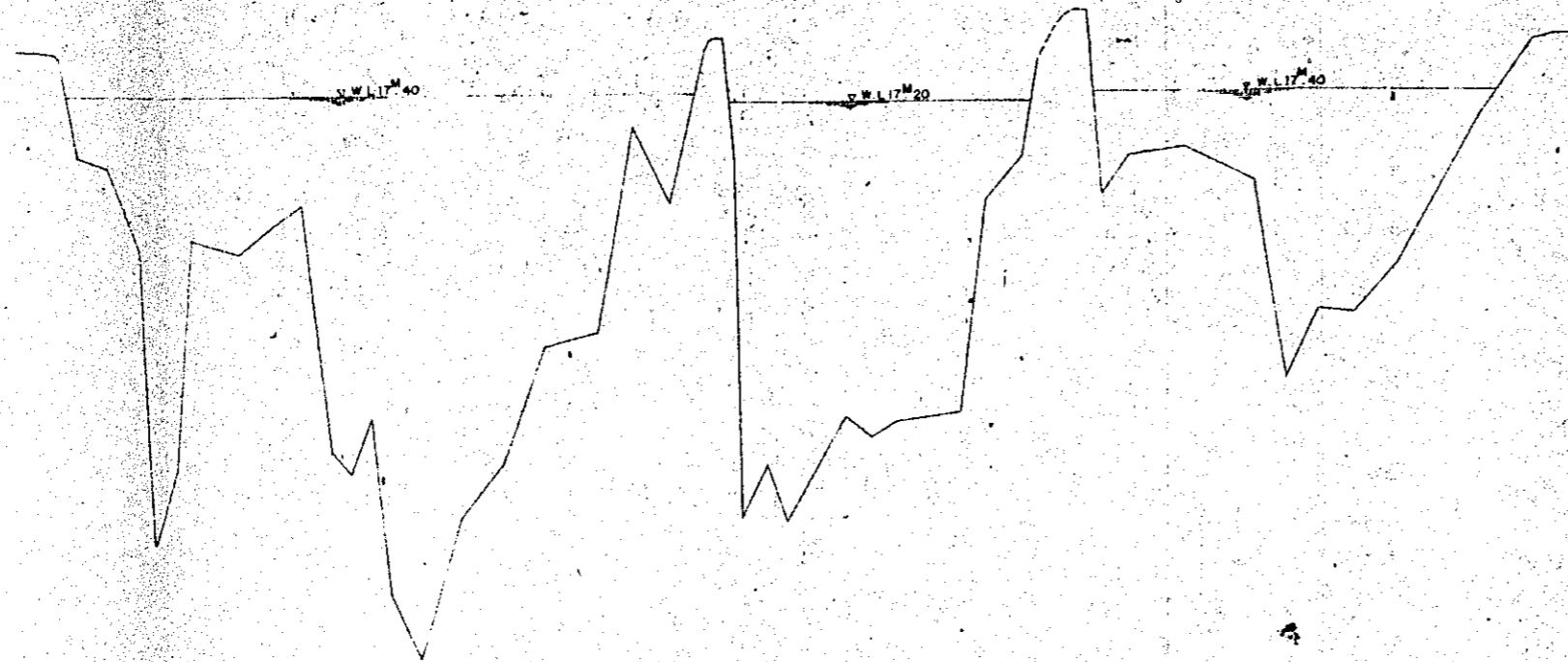
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|---|-------------|
| PROJECT BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20,000 V = 1 / 100 | APPROVED BY |
| SHEET NO B-10 | CHECKED BY |
| SURVEYED ON 9-15-OCT.-1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-11



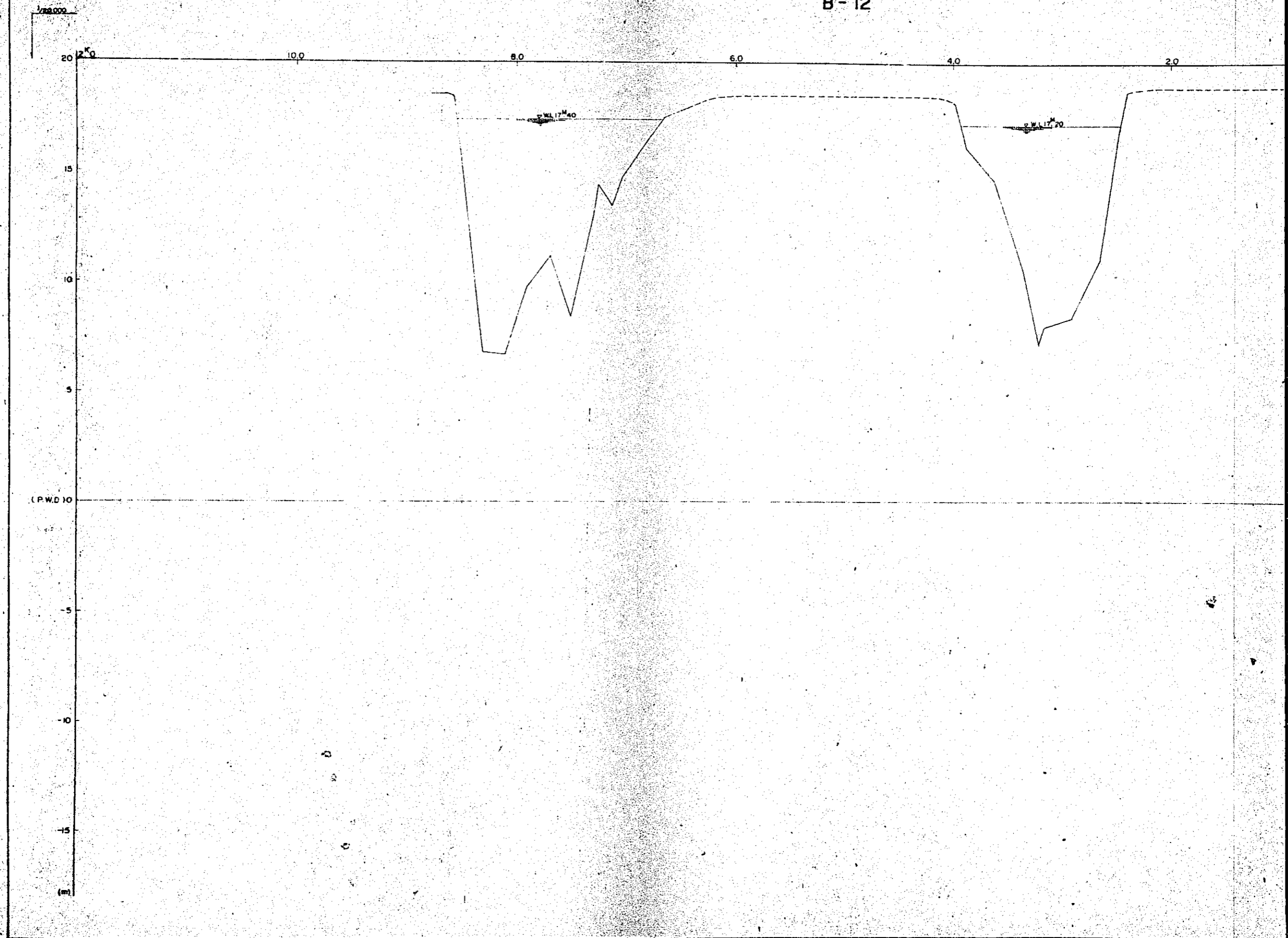
B - II

80 60 40 20 (Y=20) 0.0 20



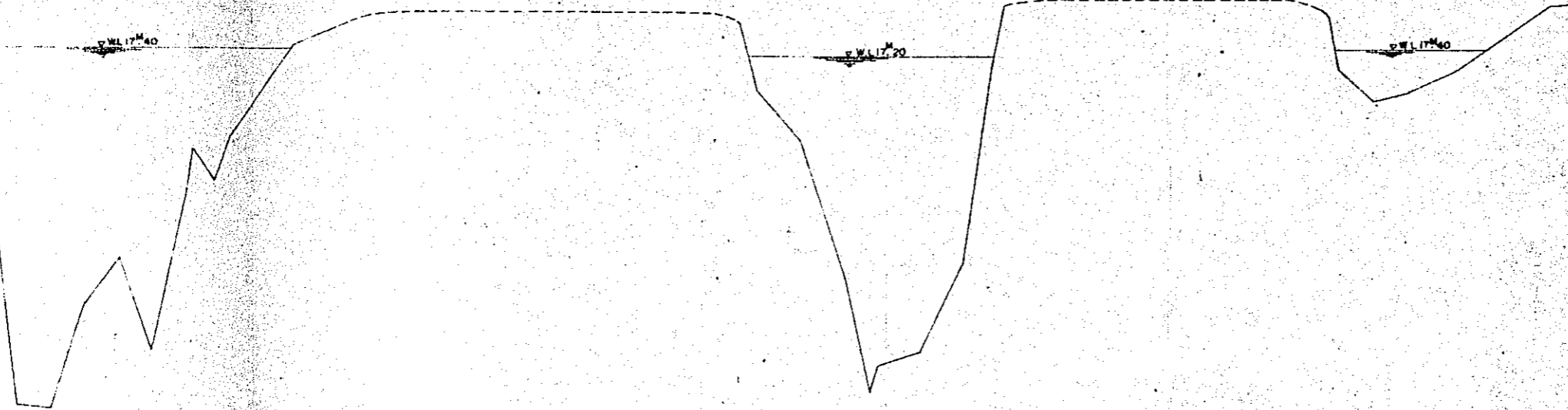
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|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - II | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
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| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-12



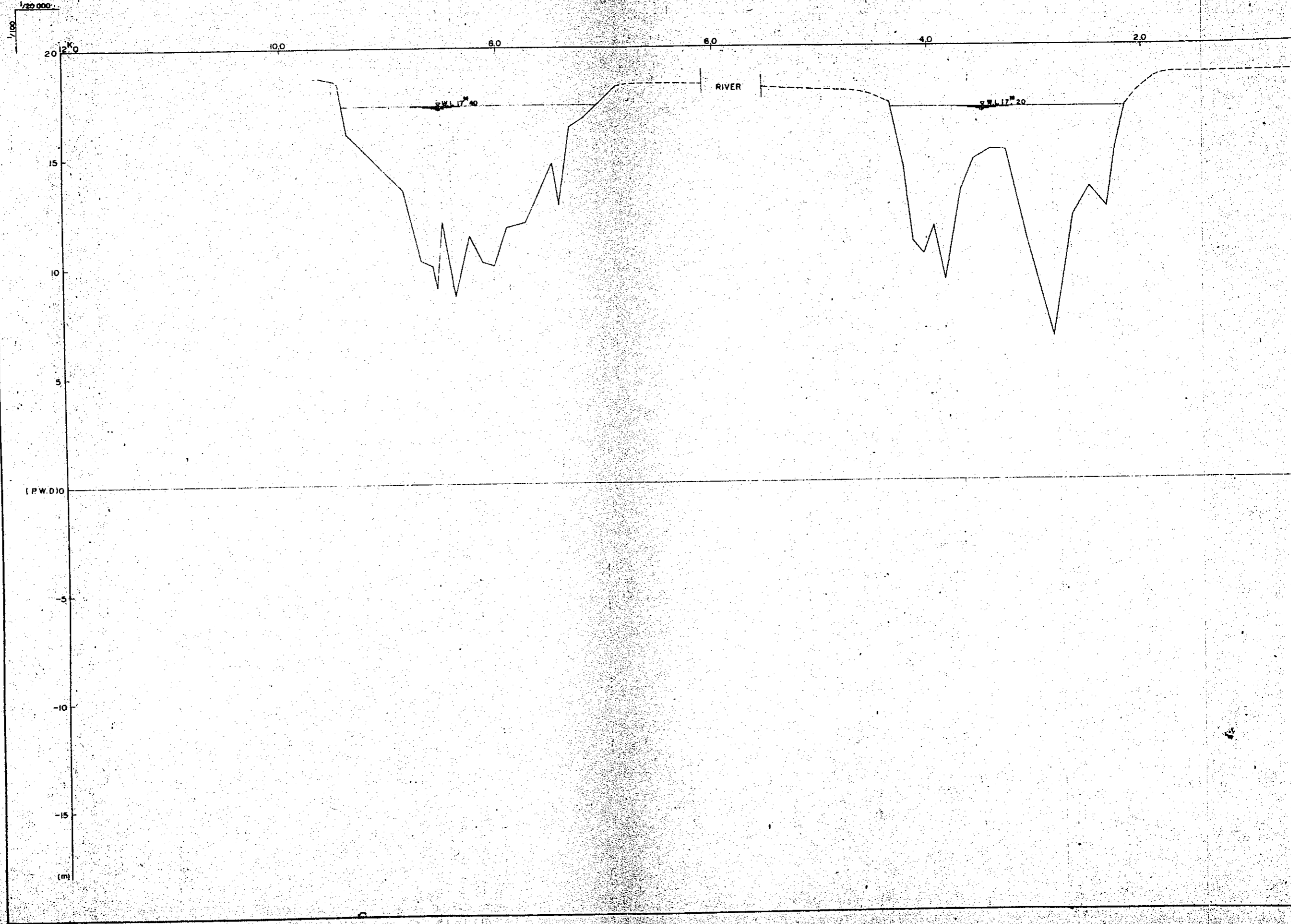
B-12

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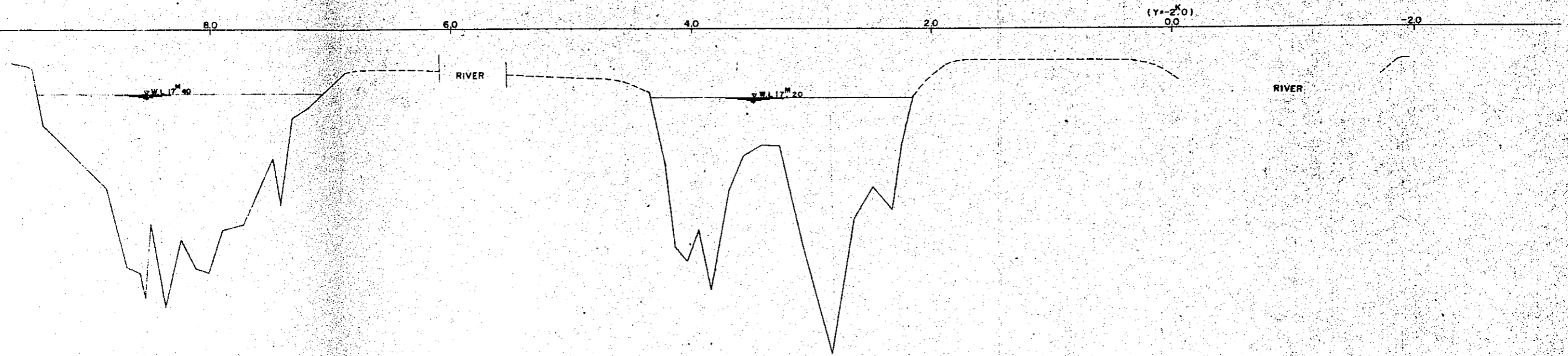


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|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B - 12 | CHECKED BY |
| SURVEYED ON 9 - 15 - OCT - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-13

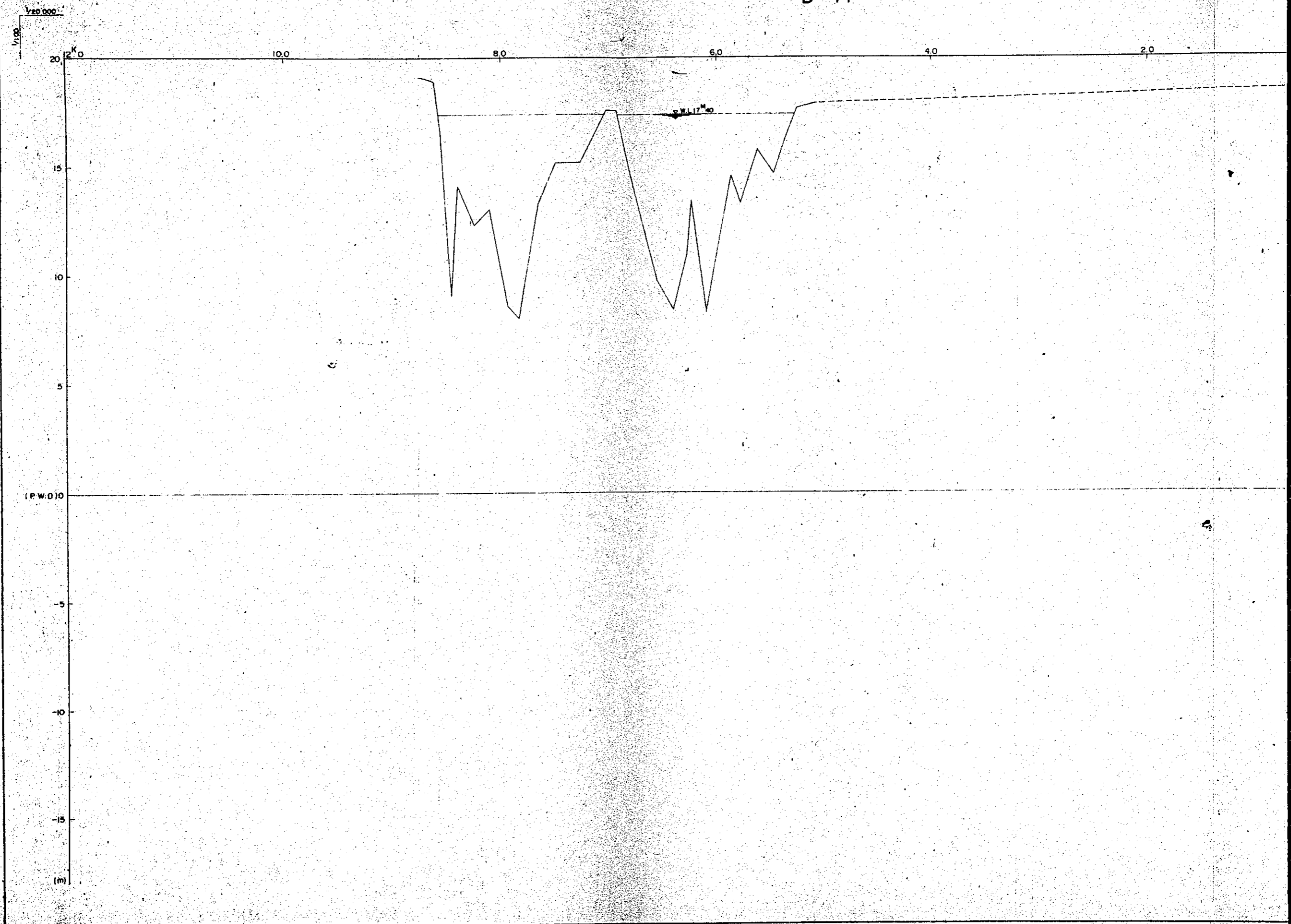


B-13

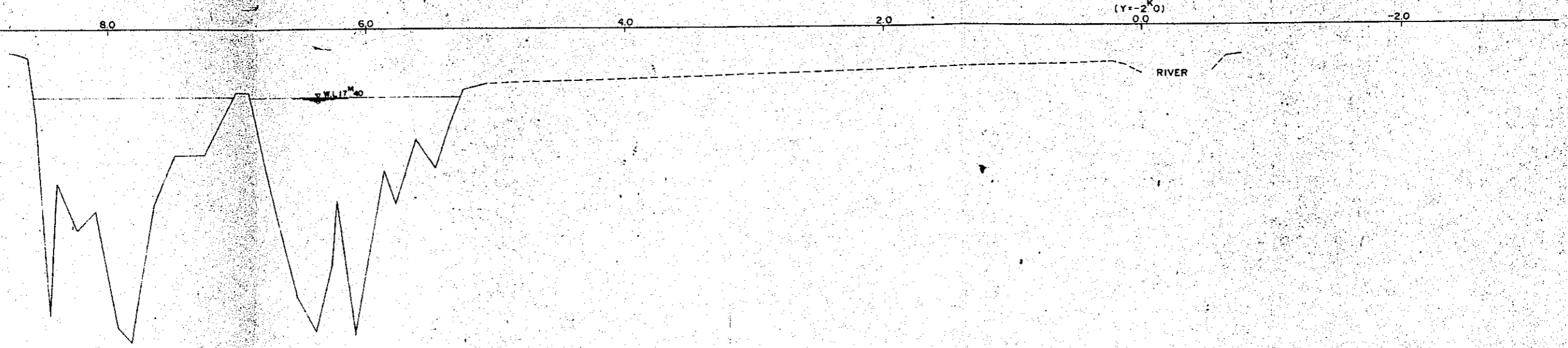


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|---|-------------|
| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1 / 20 000 V = 1 / 100 | APPROVED BY |
| SHEET NO B-13 | CHECKED BY |
| SURVEYED ON 9-13-OCT-1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

B-14



B-14



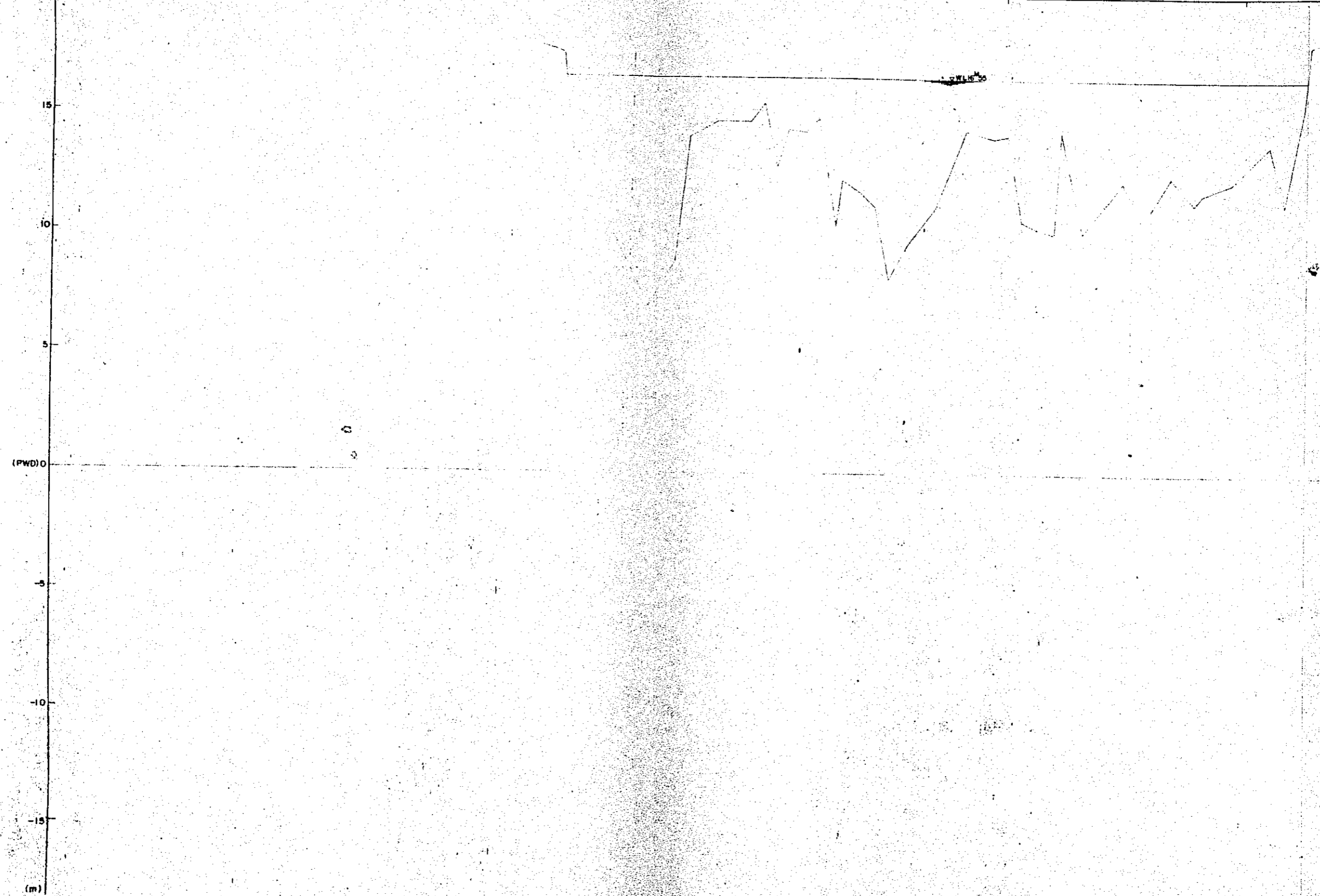
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| PROJECT BANGLADESH | |
| JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE BAHADURABAD | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND BAHADURABAD PROPOSED SITE | |
| SCALE H = 1/20,000 V = 1/100 | APPROVED BY |
| SHEET NO B-14 | CHECKED BY |
| SURVEYED ON 9-15-OCT-1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

G-1

1/20,000

1/100

120 100 80 60 40 20



G-1

80

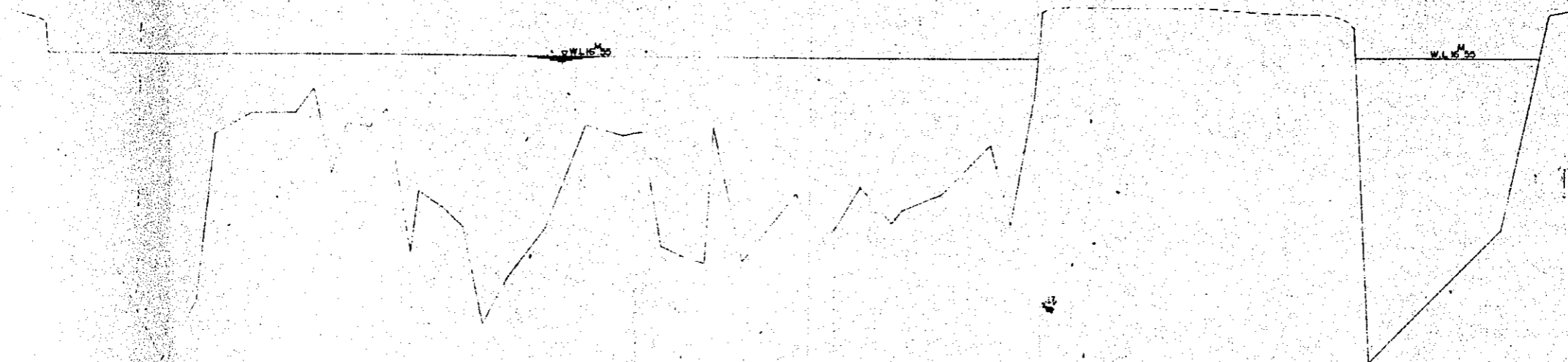
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40

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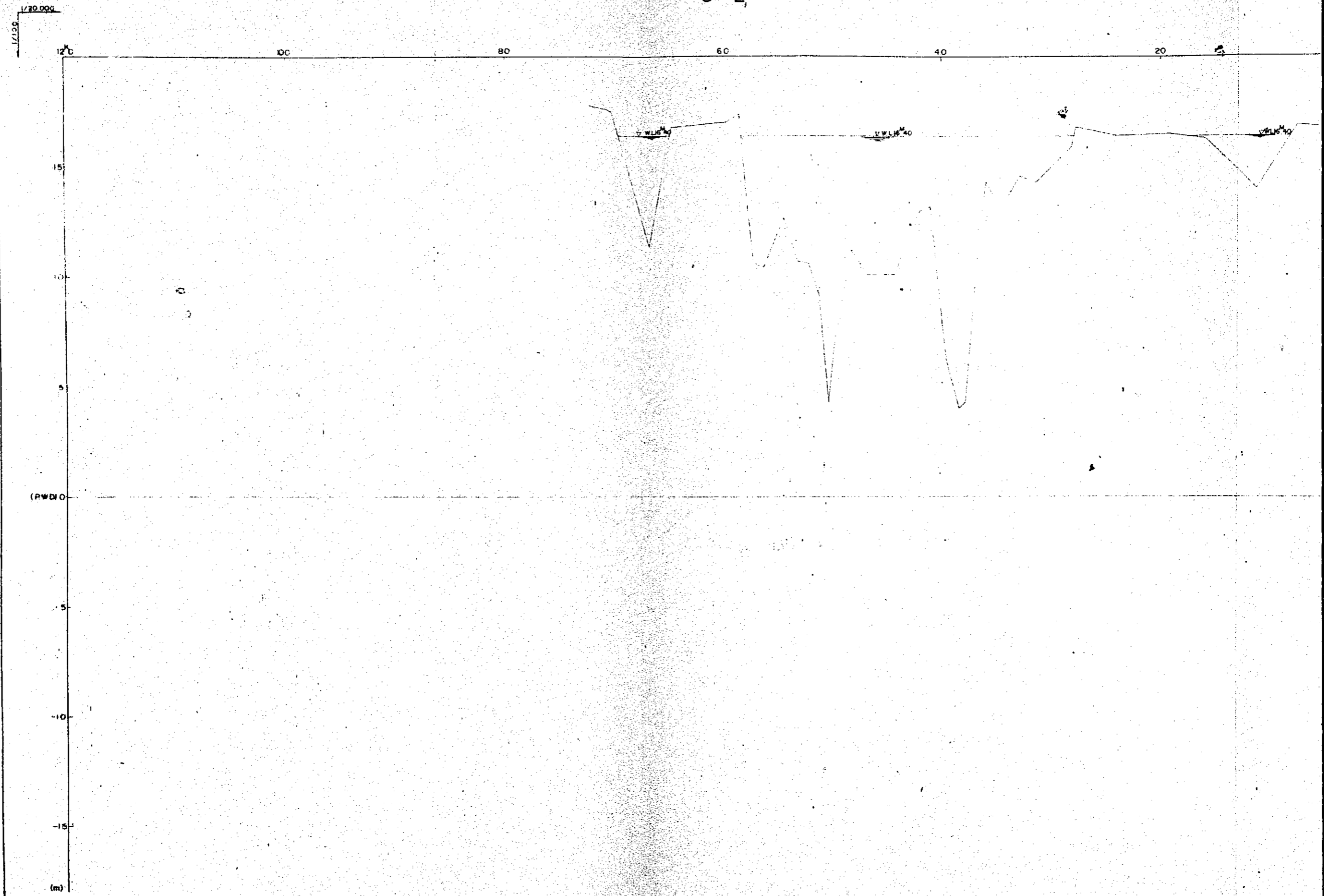
(Y=00)
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-20



| | | | |
|---|-------------------------------|--|--|
| PROJECT | | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | | | |
| SCALE | H = 1 / 20 000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 1 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-2



G-2

80

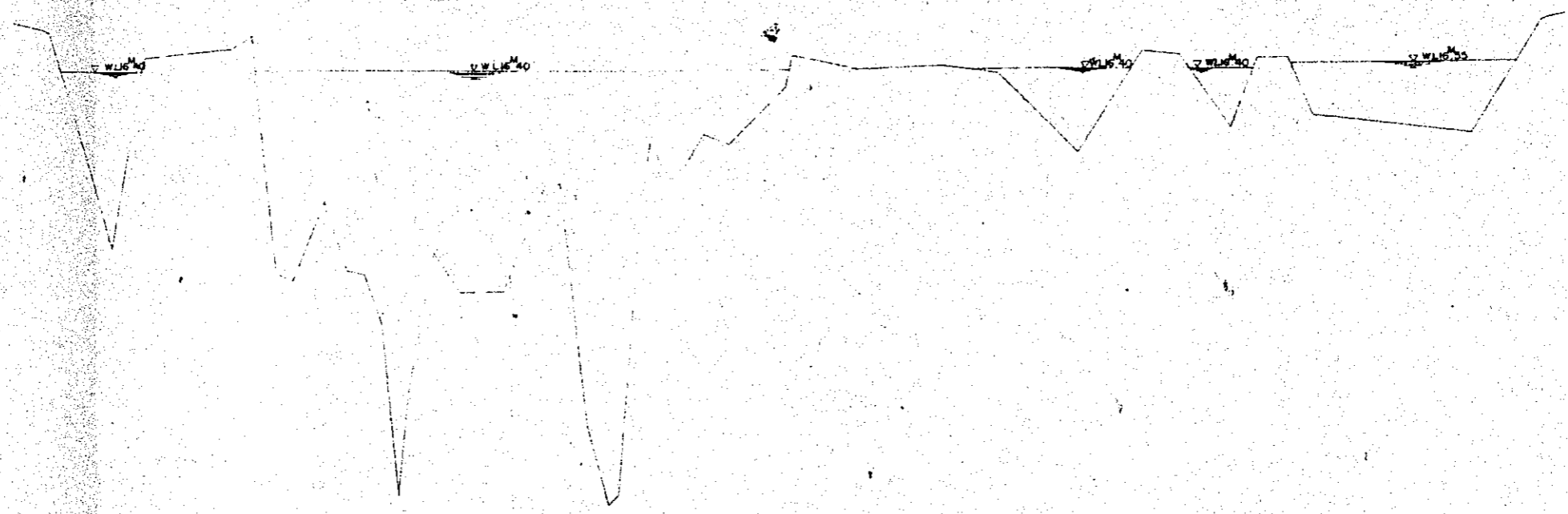
60

40

20

(Y=100)
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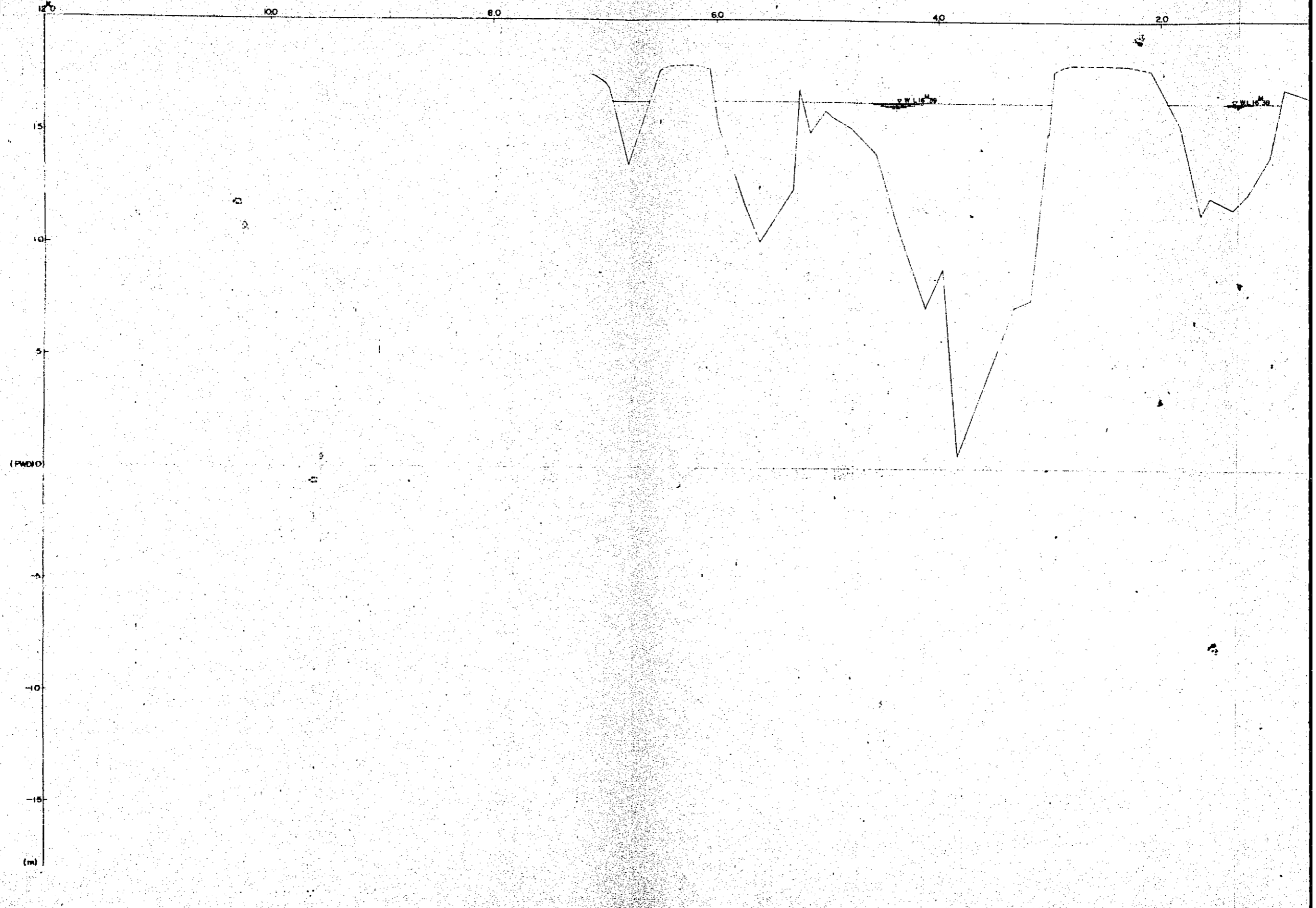
-20



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|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 2 | CHECKED BY | |
| SURVEYED ON | 16 - 19 - OCT - 1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

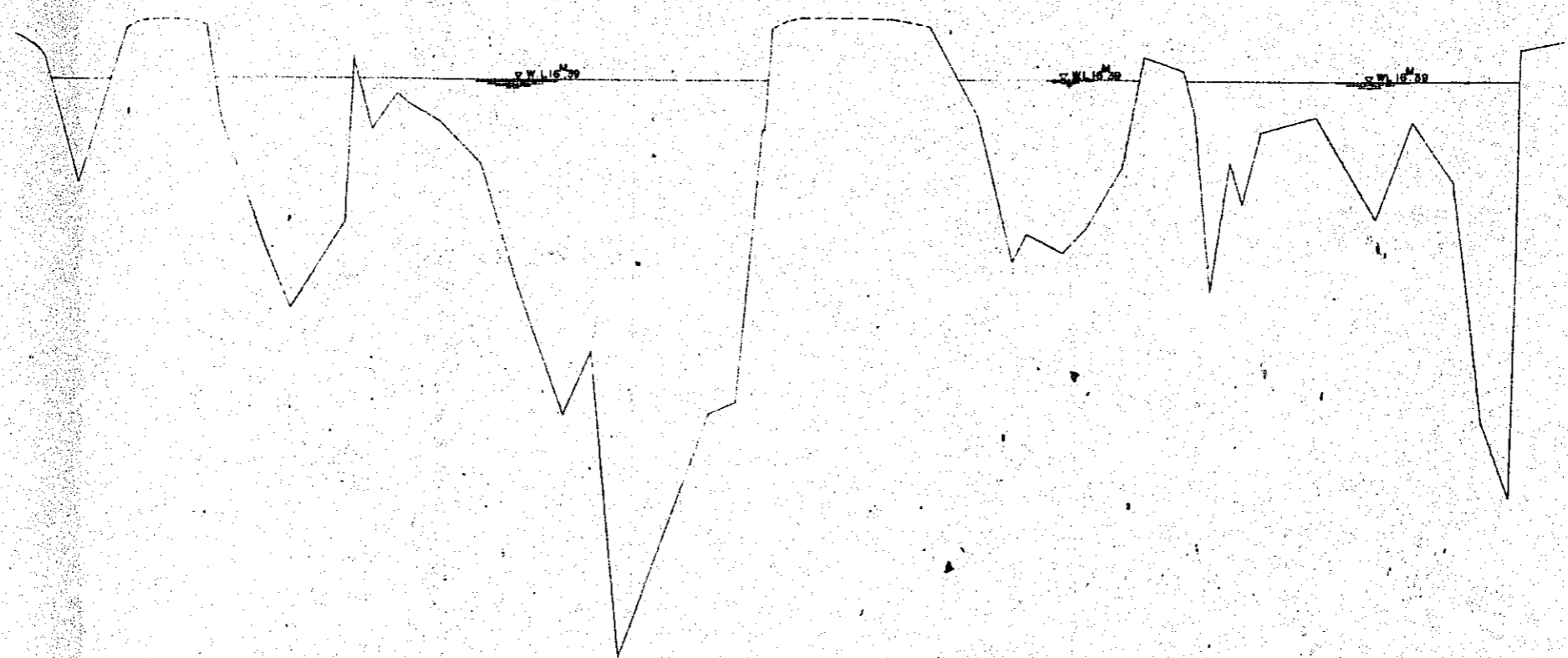
G-3

1/20 000
1/100



G-3

80 60 40 20 (Y=10⁰⁰) 00 -20



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|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 3 | CHECKED BY | |
| SURVEYED ON | 18-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-4

1/20,000

1/100

120

100

80

60

40

20

15

10

5

(FWD) 0

-5

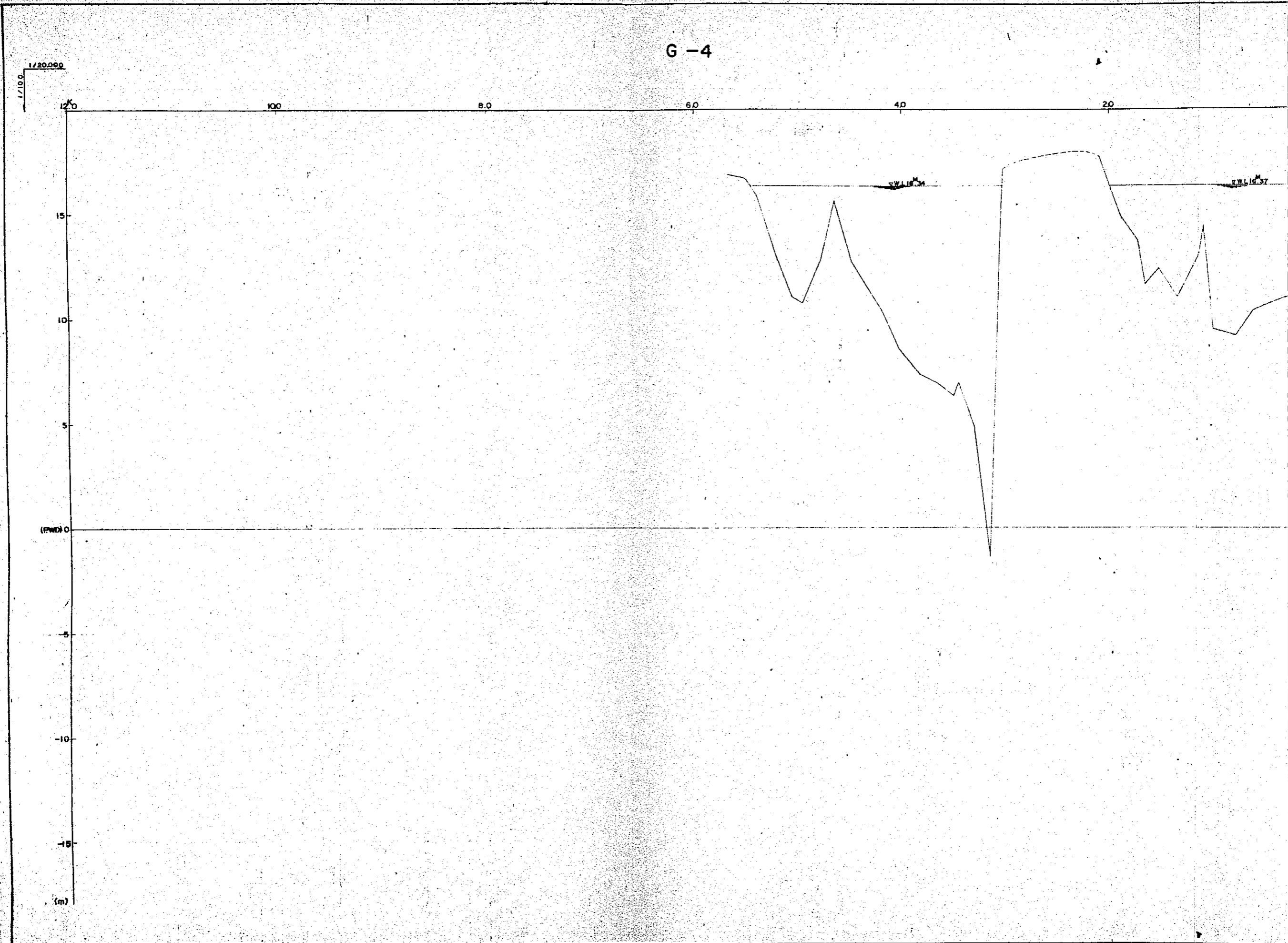
-10

-15

(m)

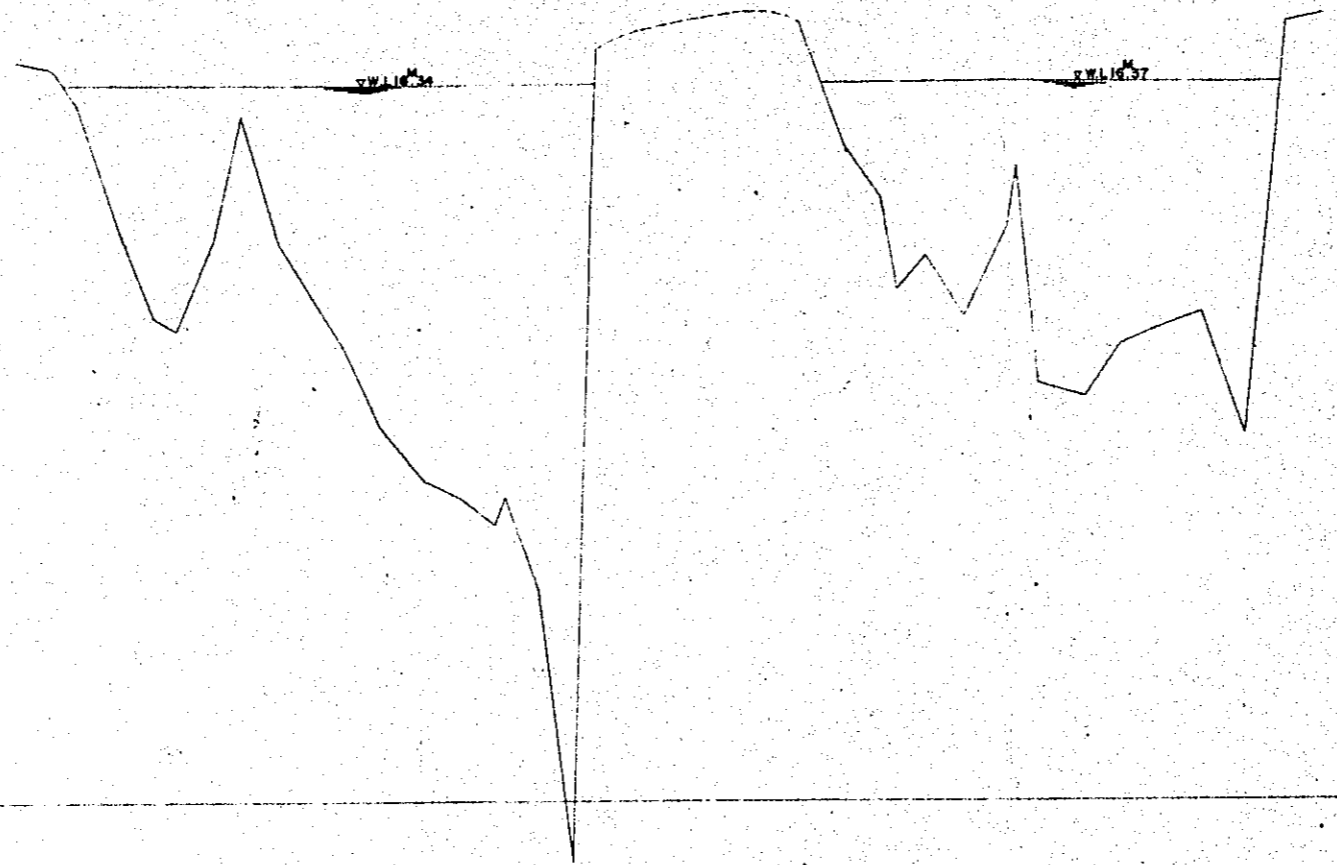
29.1634

29.1637



G-4

80 60 40 20 00 (Y=100) -20



| | | | |
|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 4 | CHECKED BY | |
| SURVEYED ON | 16 - 19 - OCT - 1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-5

1/20000

1/100

120 100 80 60 40 20

15

-10

5

(PWD) 0

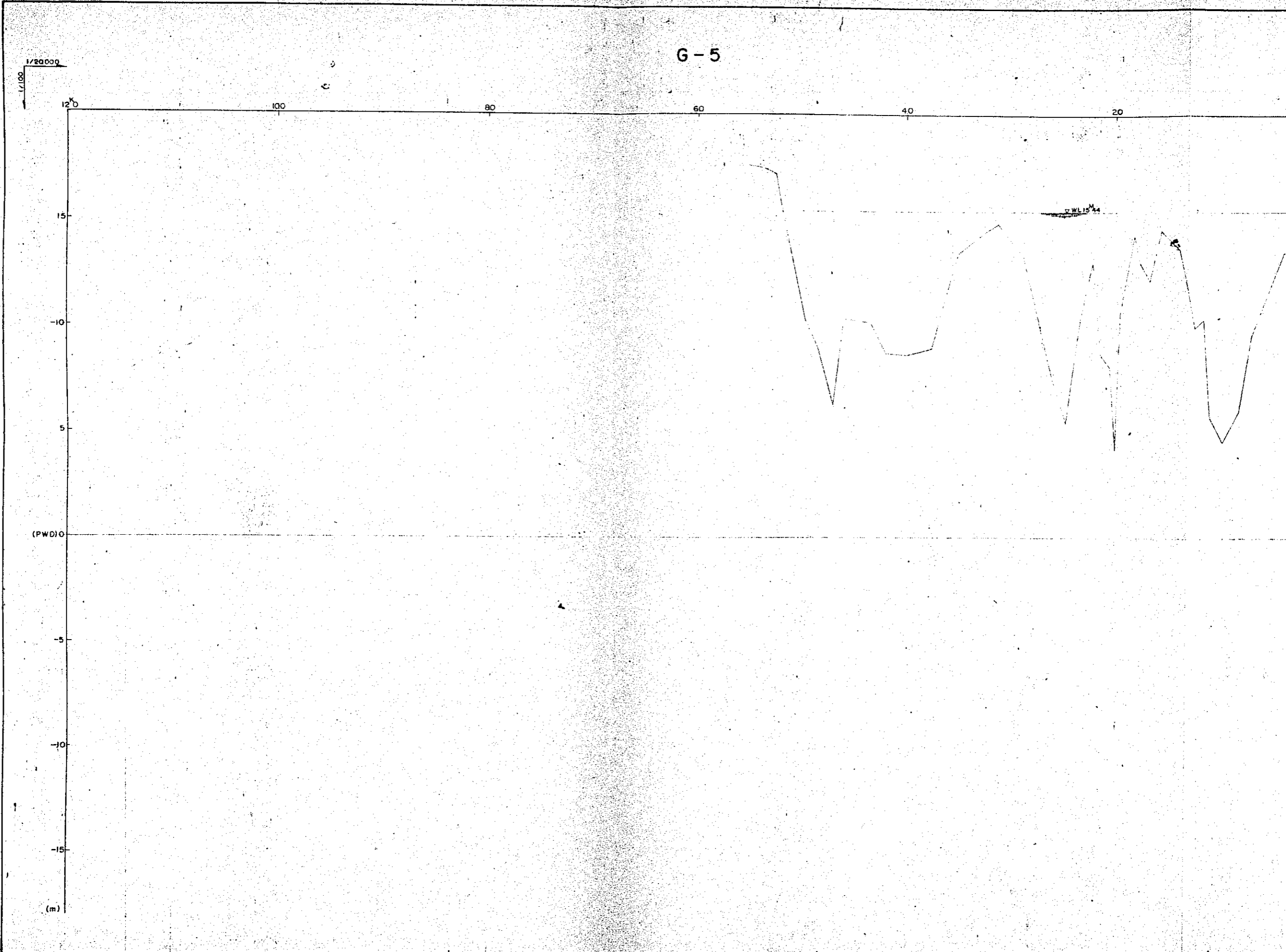
-5

-10

-15

(m)

TWL 15.4



G-5

80

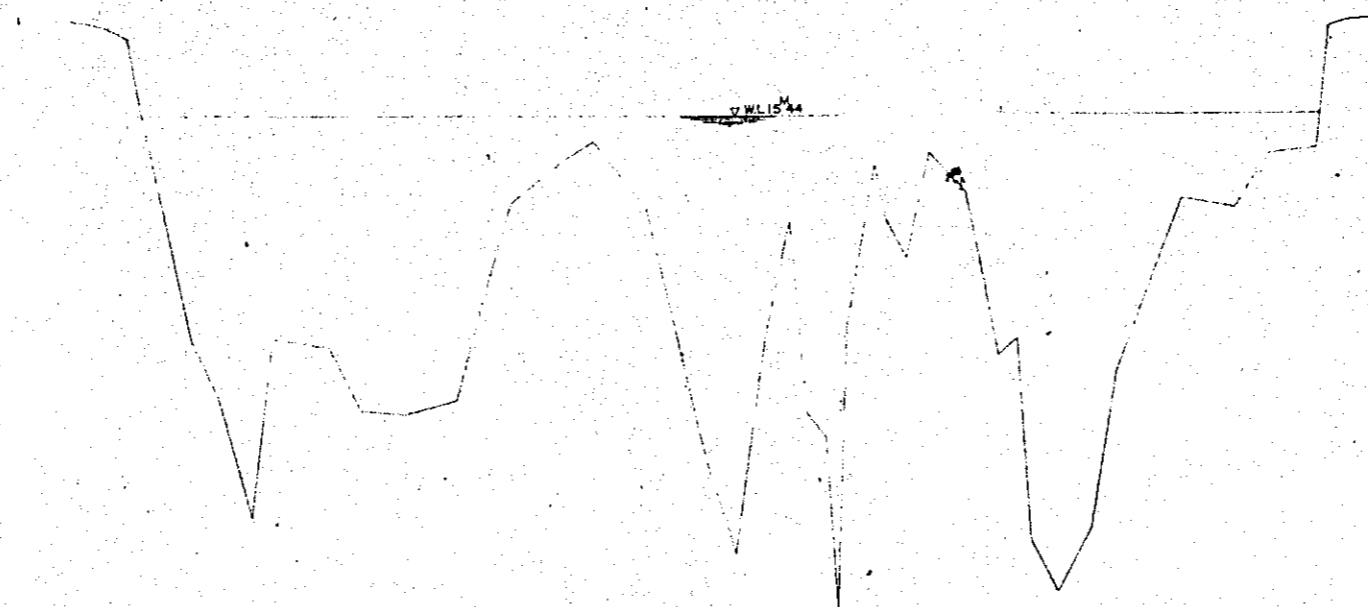
60

40

20

(+100)
0.0

-20



| | | | |
|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G-5 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-6

1/20,000

00171

12.0

10.0

8.0

6.0

4.0

2.0

-15

10

5

(PWD) 0

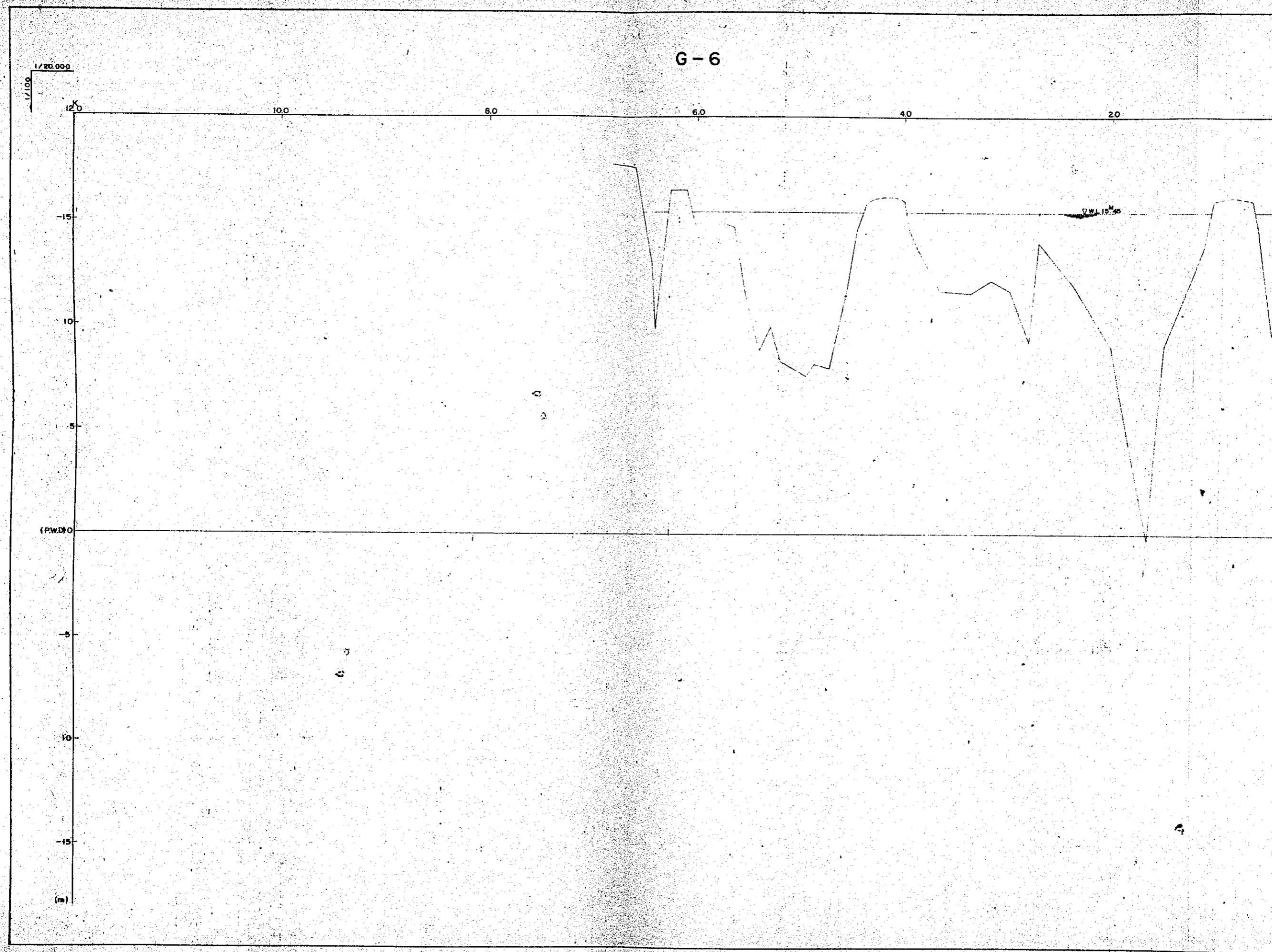
-5

10

-15

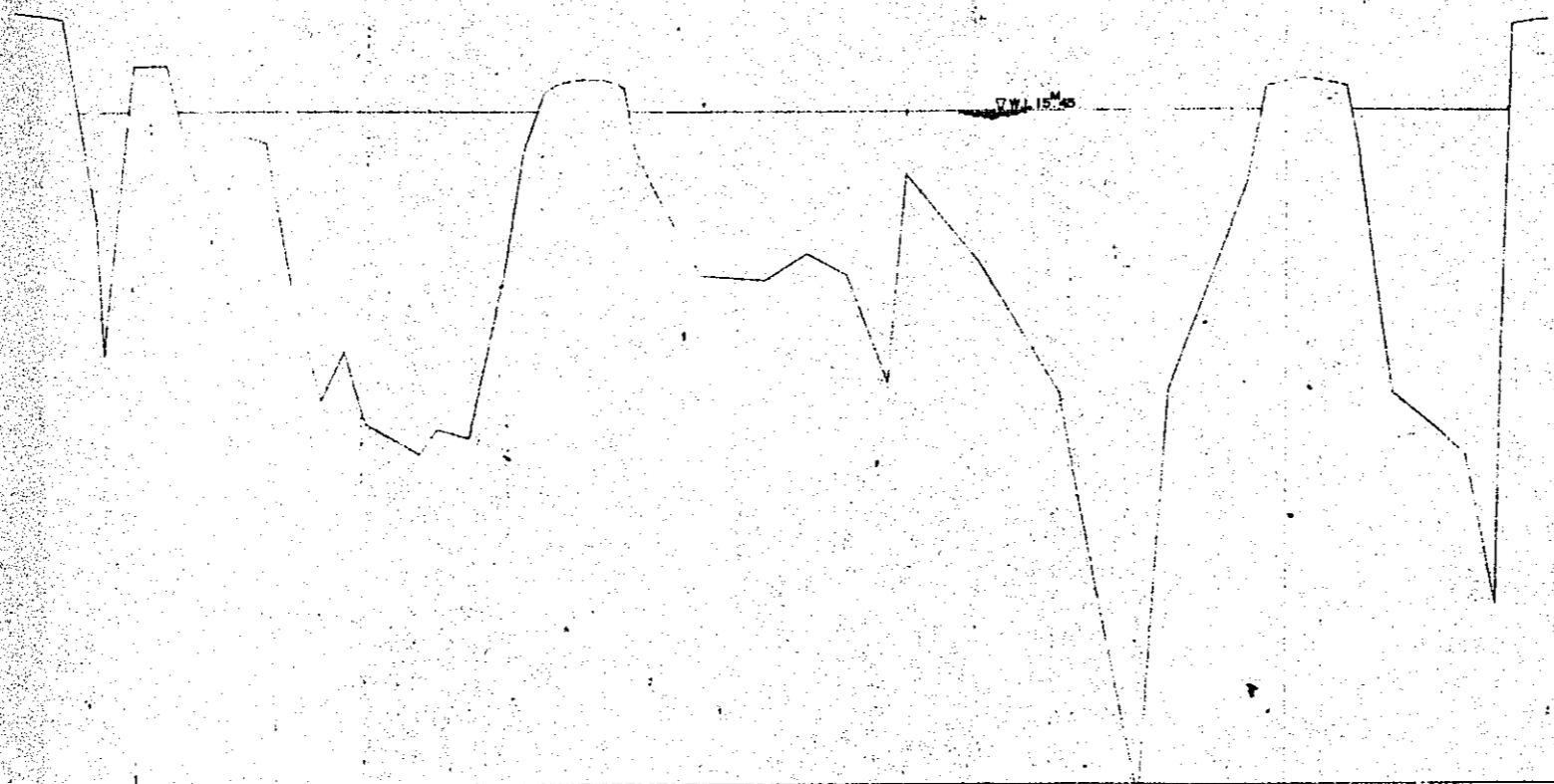
(m)

7.11.15.95



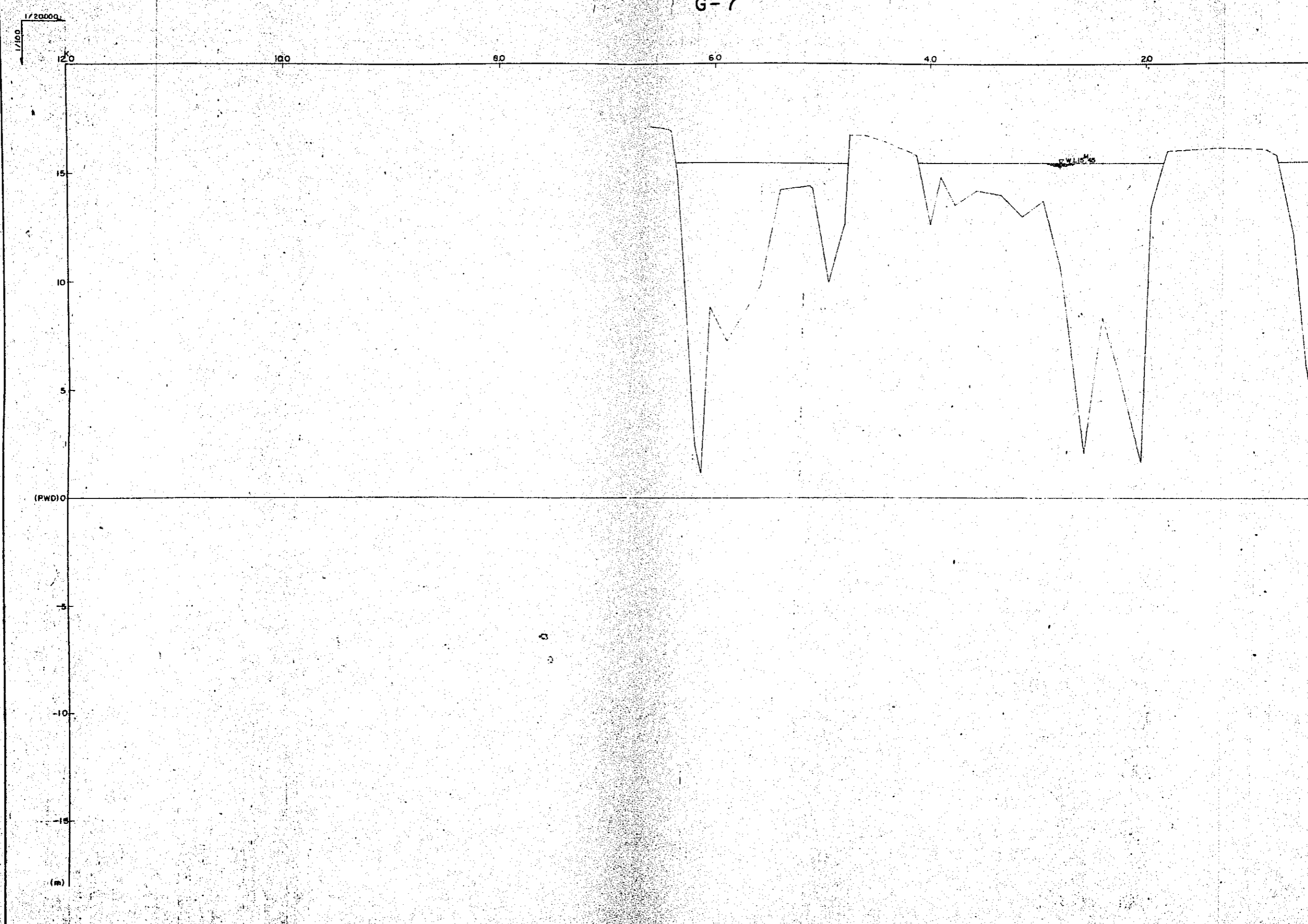
G-6

8.0 6.0 4.0 2.0 (Y=0.0) 0.0 -2.0



| | | |
|---|---|-------------|
| PROJECT | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | GABARGAON | |
| TITLE | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY |
| SHEET NO | G - 6 | CHECKED BY |
| SURVEYED ON | 16 - 19 - OCT. - 1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | |

G-7



G-7

80

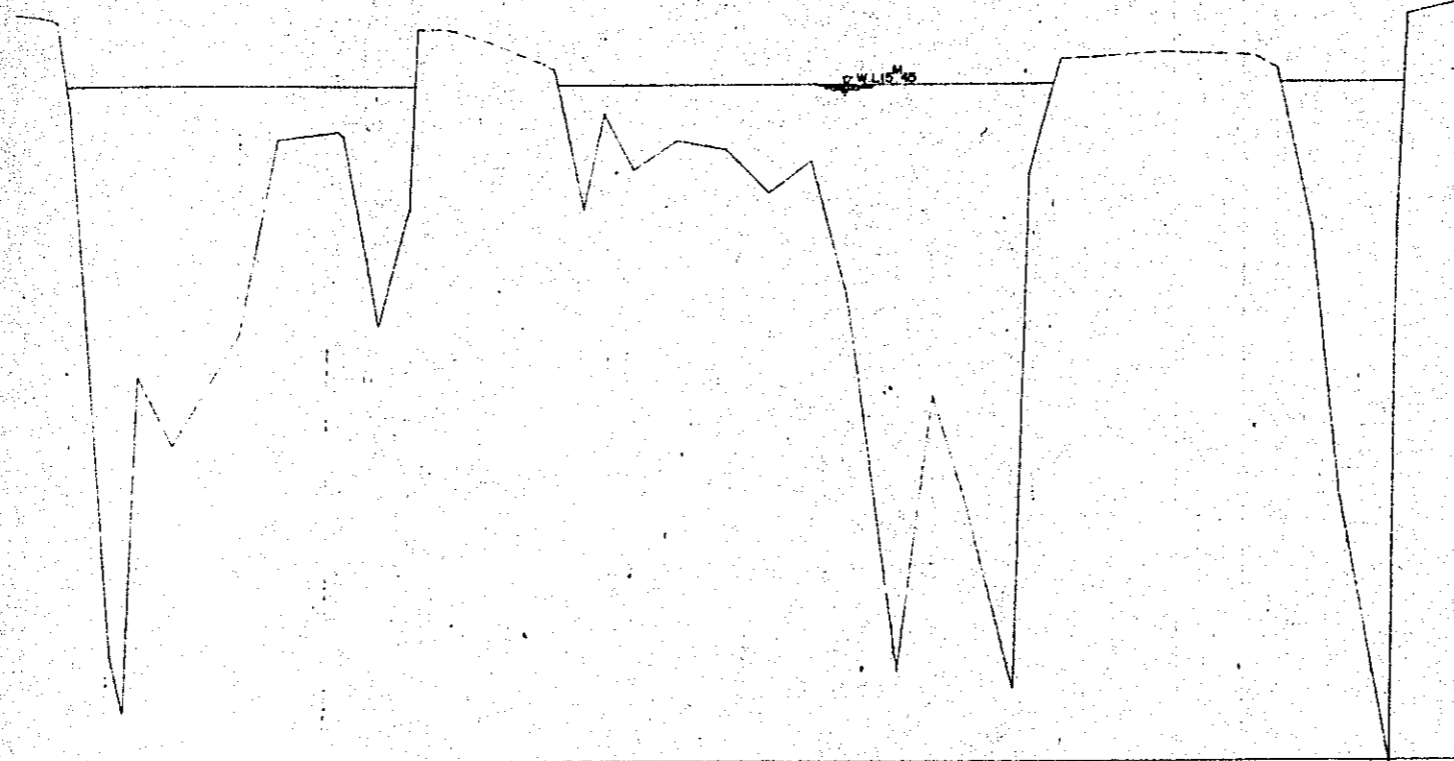
60

40

20

(V=100)
00

-20



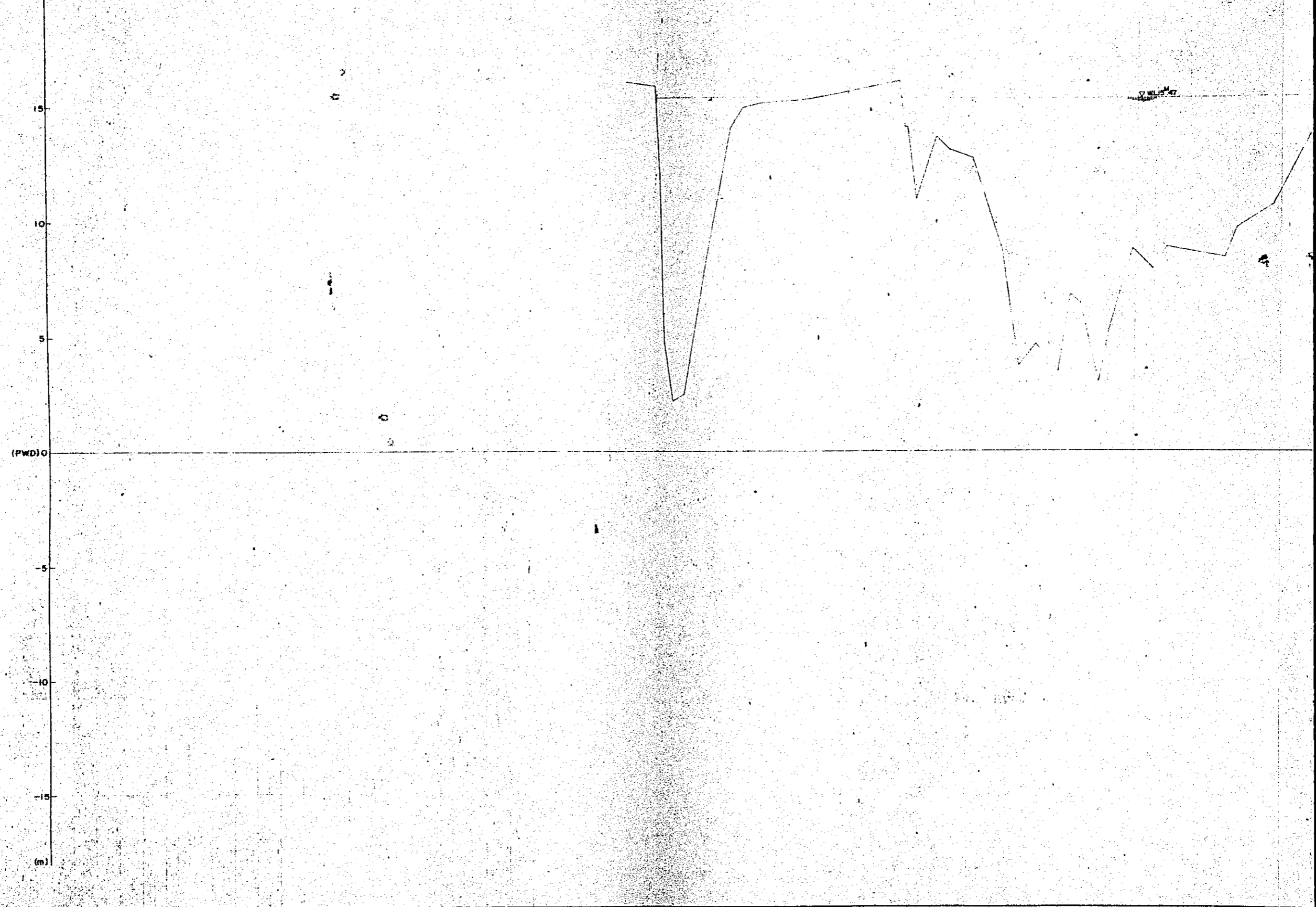
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| PROJECT | | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 7 | CHECKED BY | |
| SURVEYED ON | 19 - OCT - 1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-8

1/20,000

1/100

12.0 10.0 8.0 6.0 4.0 2.0



G-8

80

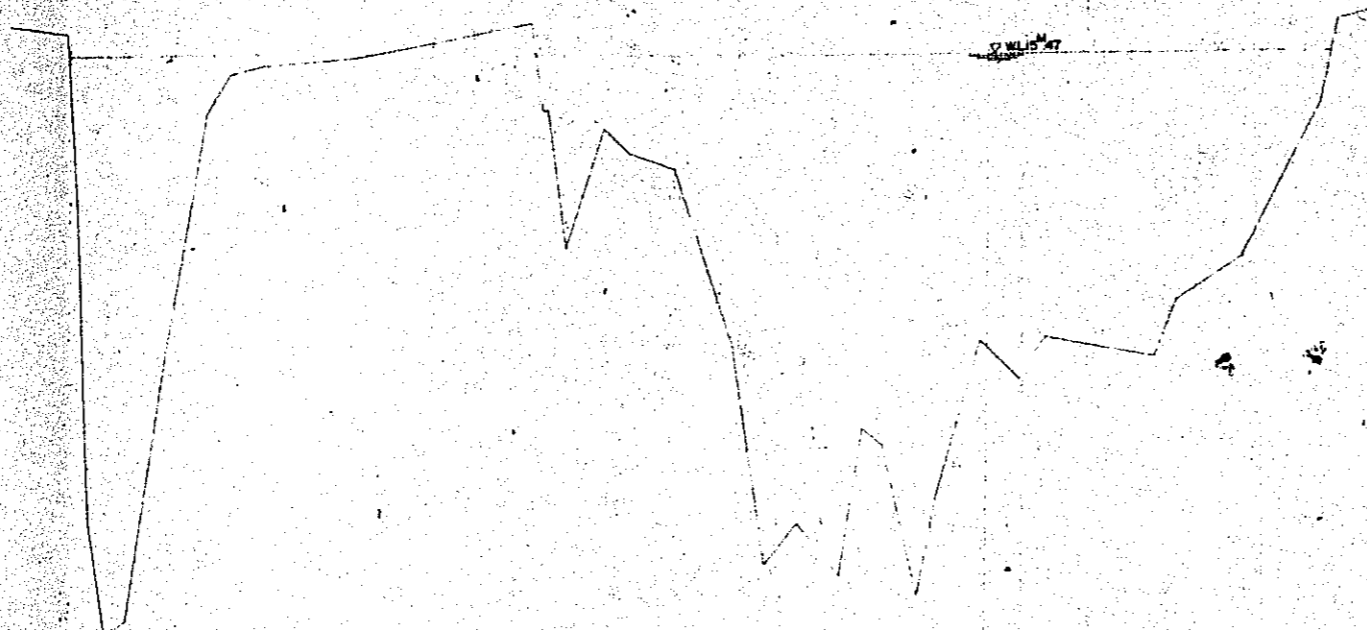
60

40

20

(y-sd) 00

-20

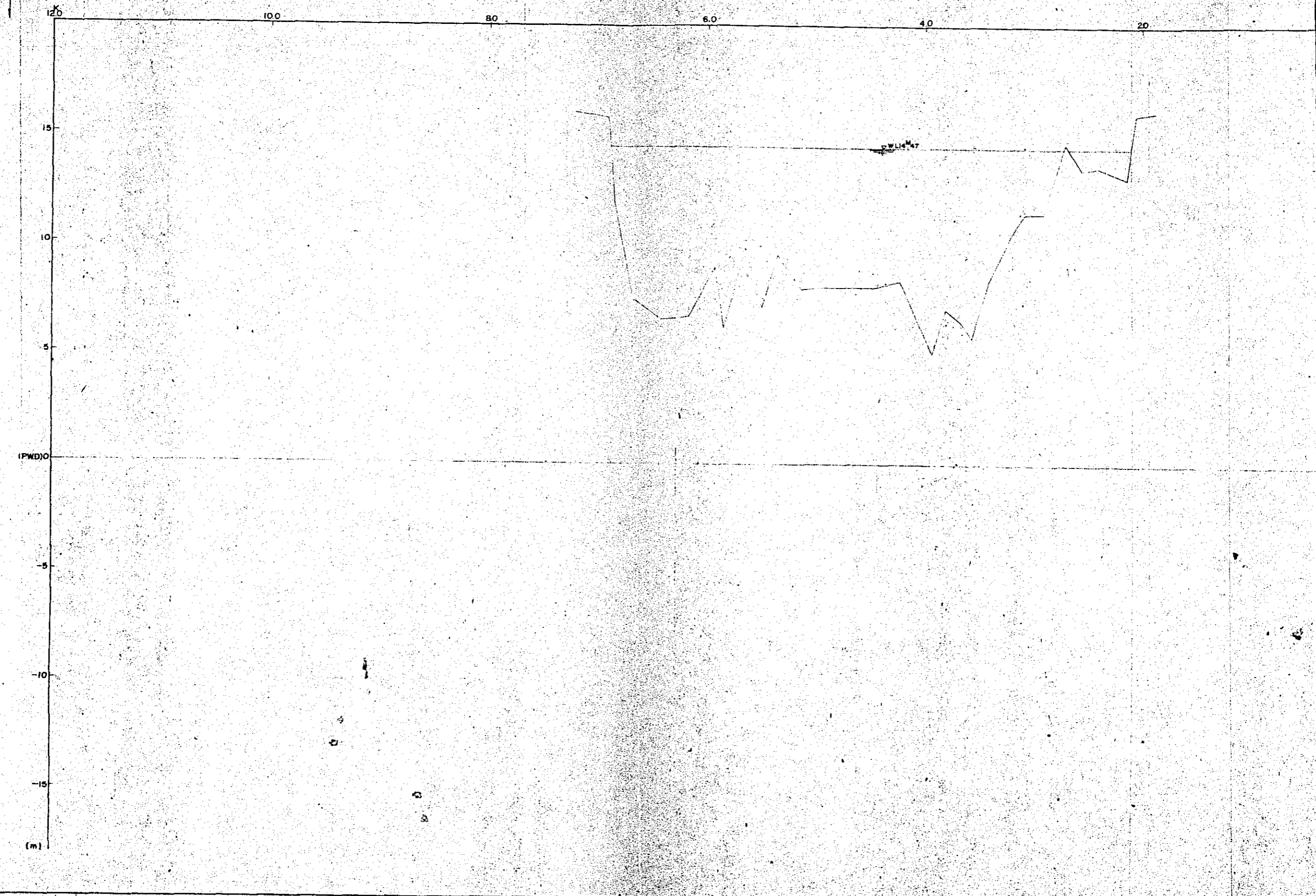


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|---|-------------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20,000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 8 | CHECKED BY | |
| SURVEYED ON | 16 - 19 - OCT. - 1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-9

1/20000

1/100



G-9

60

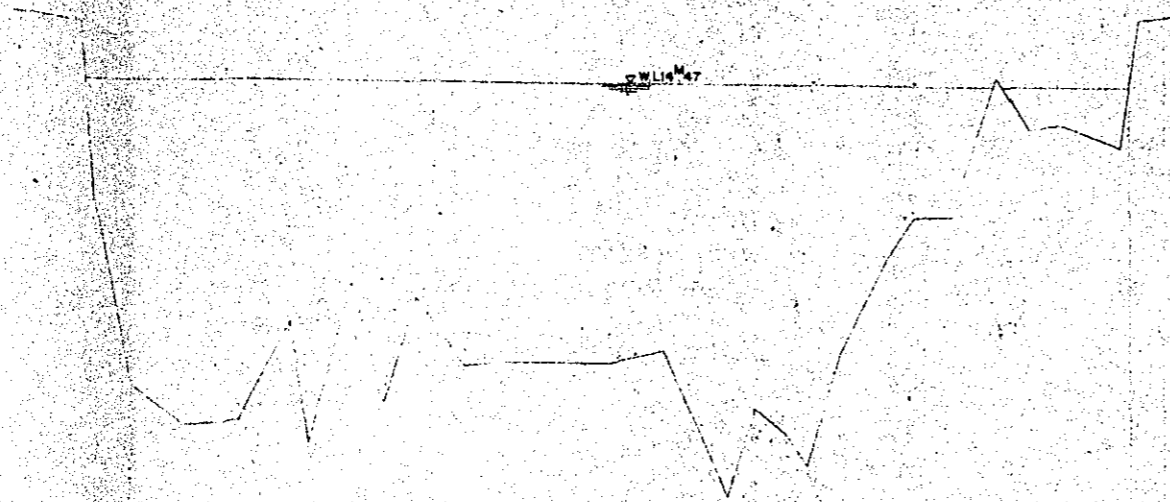
6.0

4.0

20

(Y=10.0)
00

-2.0



| | | | |
|---|------------------------------|---|--|
| PROJECT | | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1 / 20000 V = 1 / 100 | APPROVED BY | |
| SHEET NO | G - 9 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-10

1720002

1.00

120

100

80

60

40

20

15

10

5

(PWD) 0

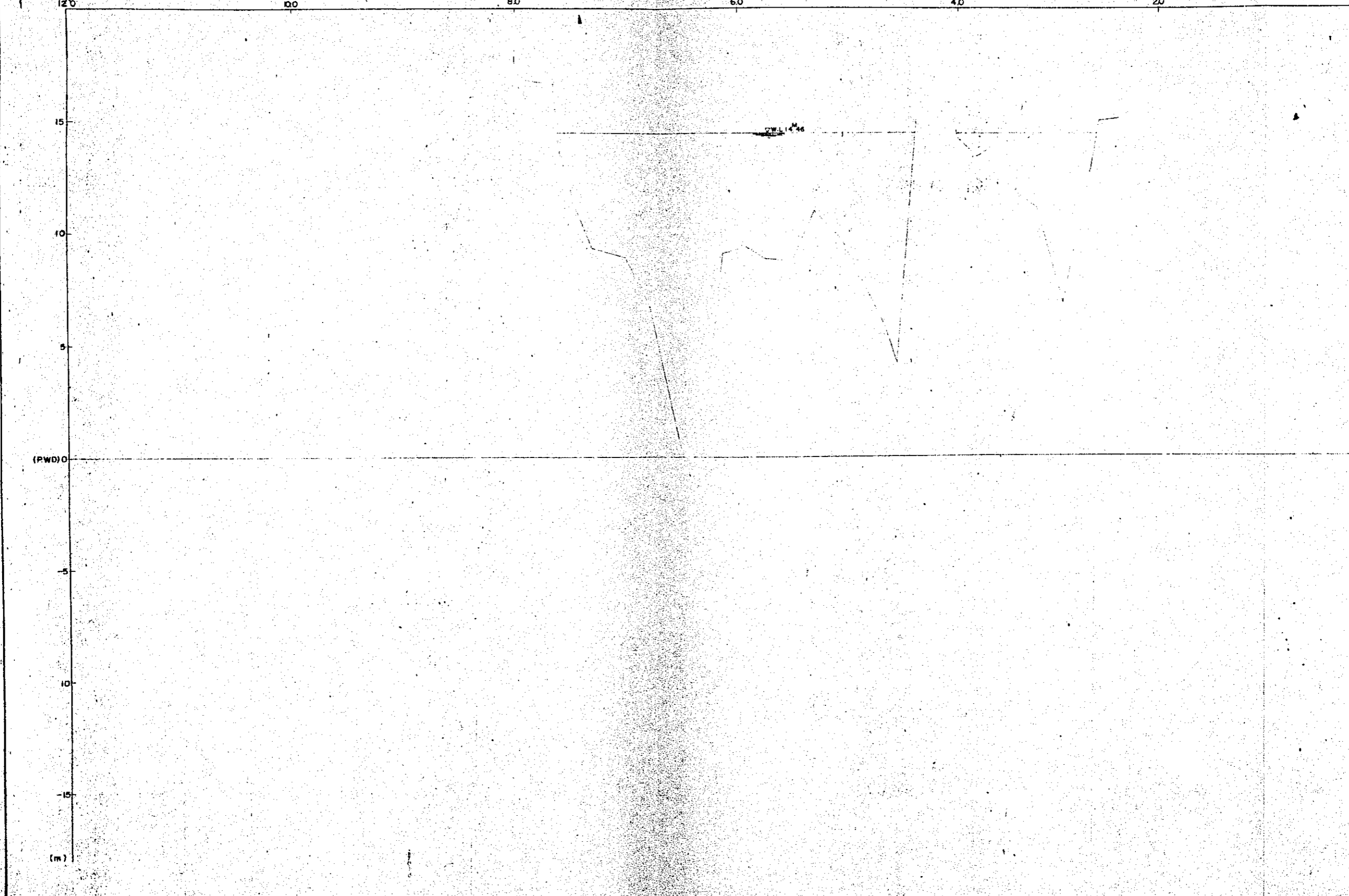
-5

-10

-15

(m)

27.1.46



G-10

80

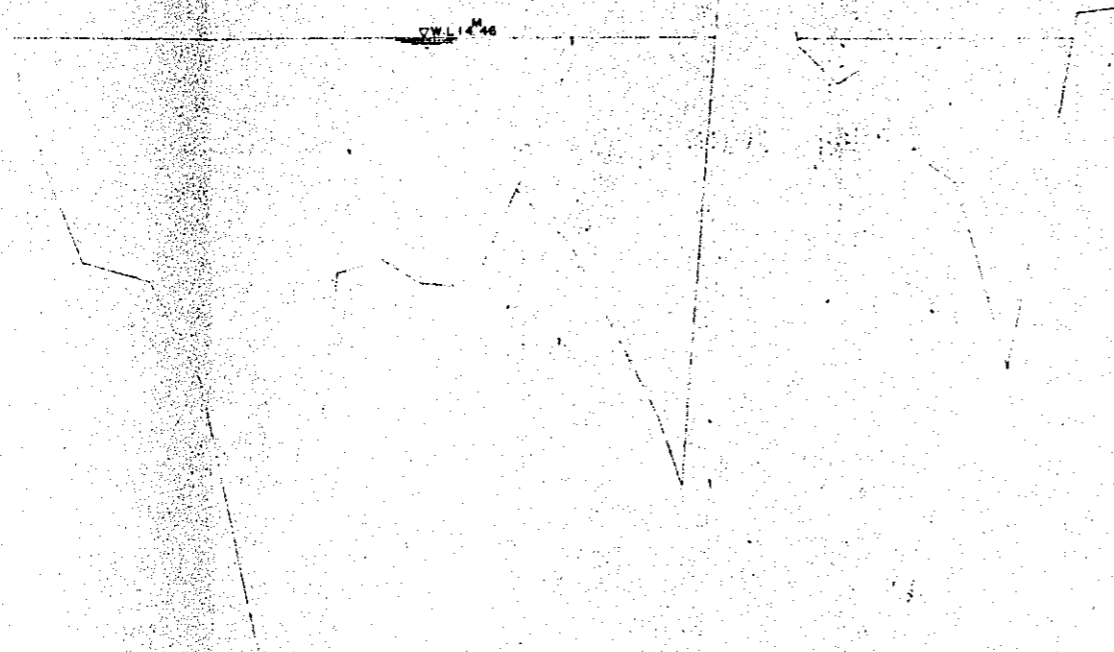
60

40

20

(1+100)
00

-20

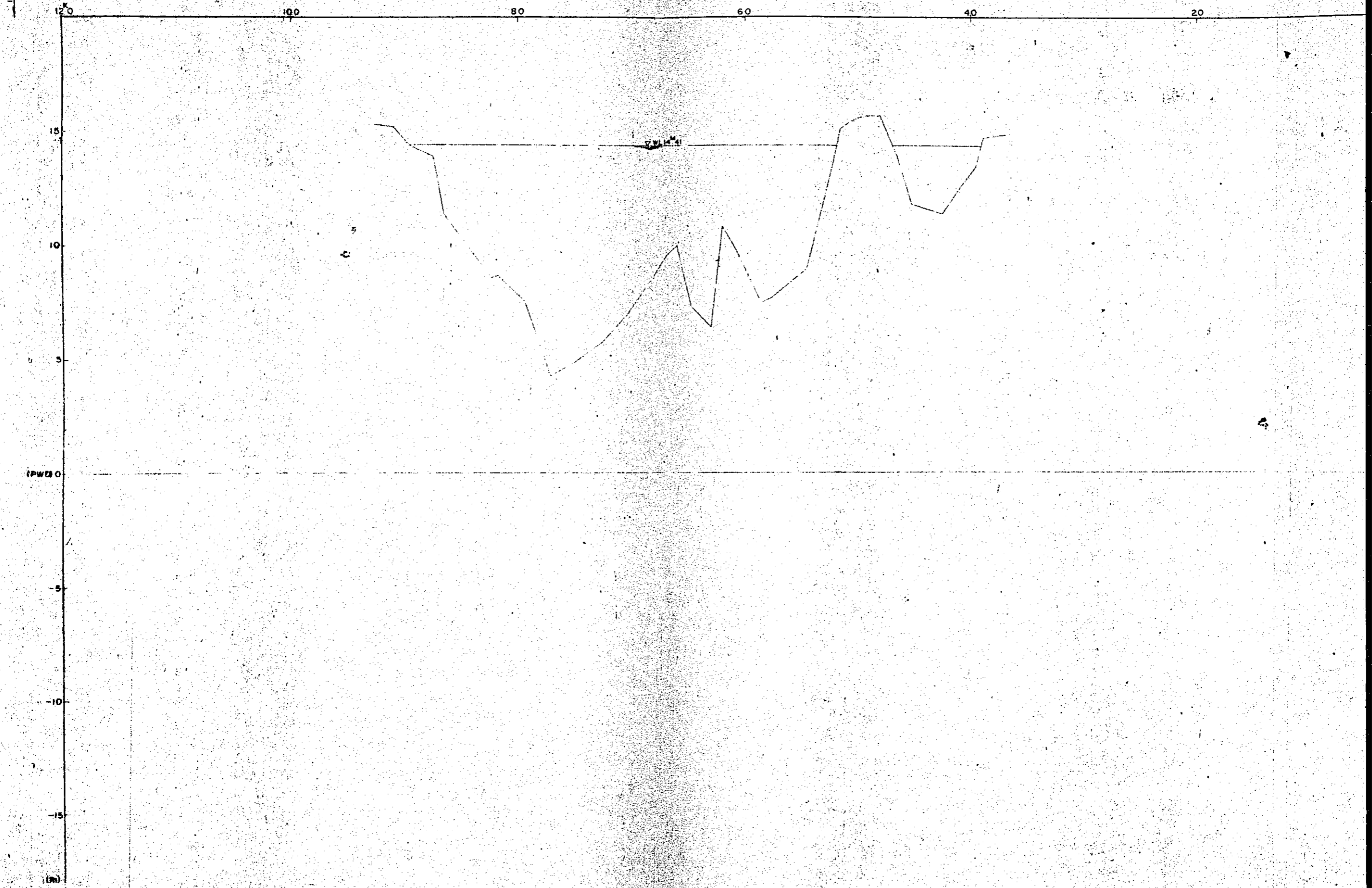


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|---|---|-------------|
| PROJECT | BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | GABARGAON | |
| TITLE | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1" / 20,000 V = 1" / 100 | APPROVED BY |
| SHEET NO | G-10 | CHECKED BY |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | |

G-II

1/20000

1/100



G-11

80

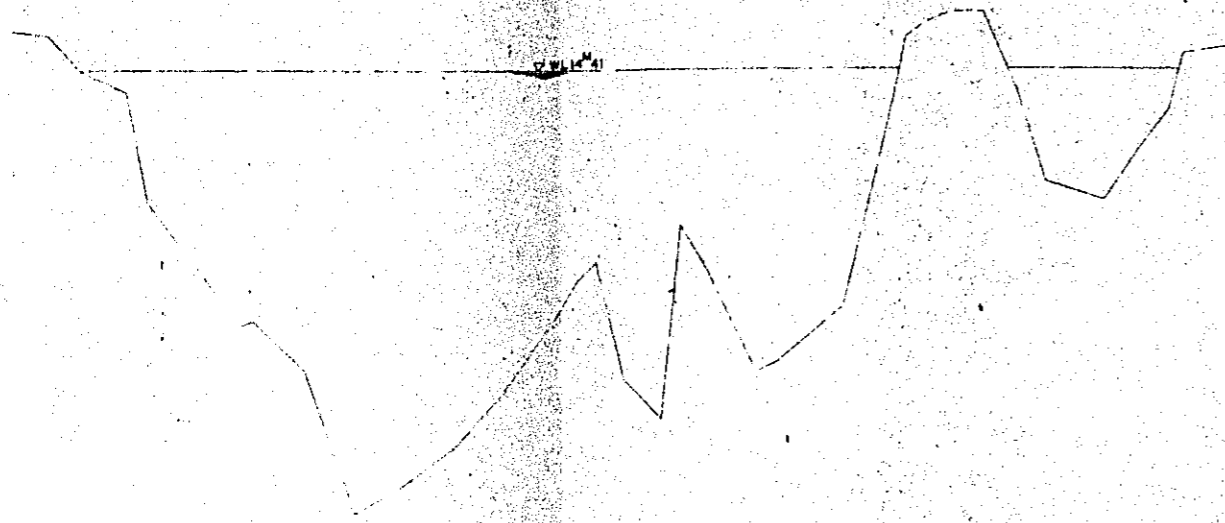
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40

20

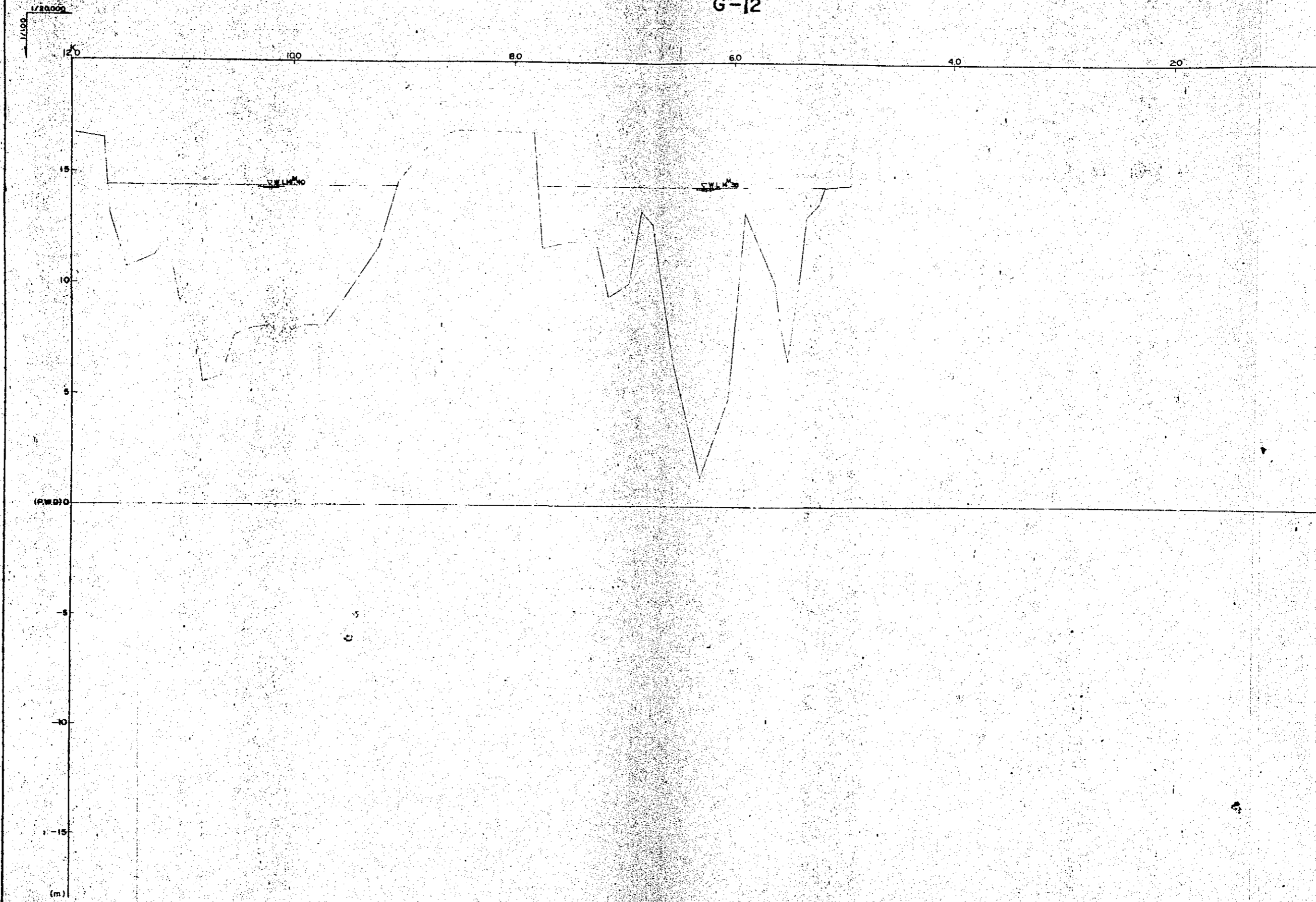
(Y=00)
00

-20



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|---|---------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1/20,000 V = 1/100 | APPROVED BY | |
| SHEET NO | G-11 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-12



G-12

80

60

40

20

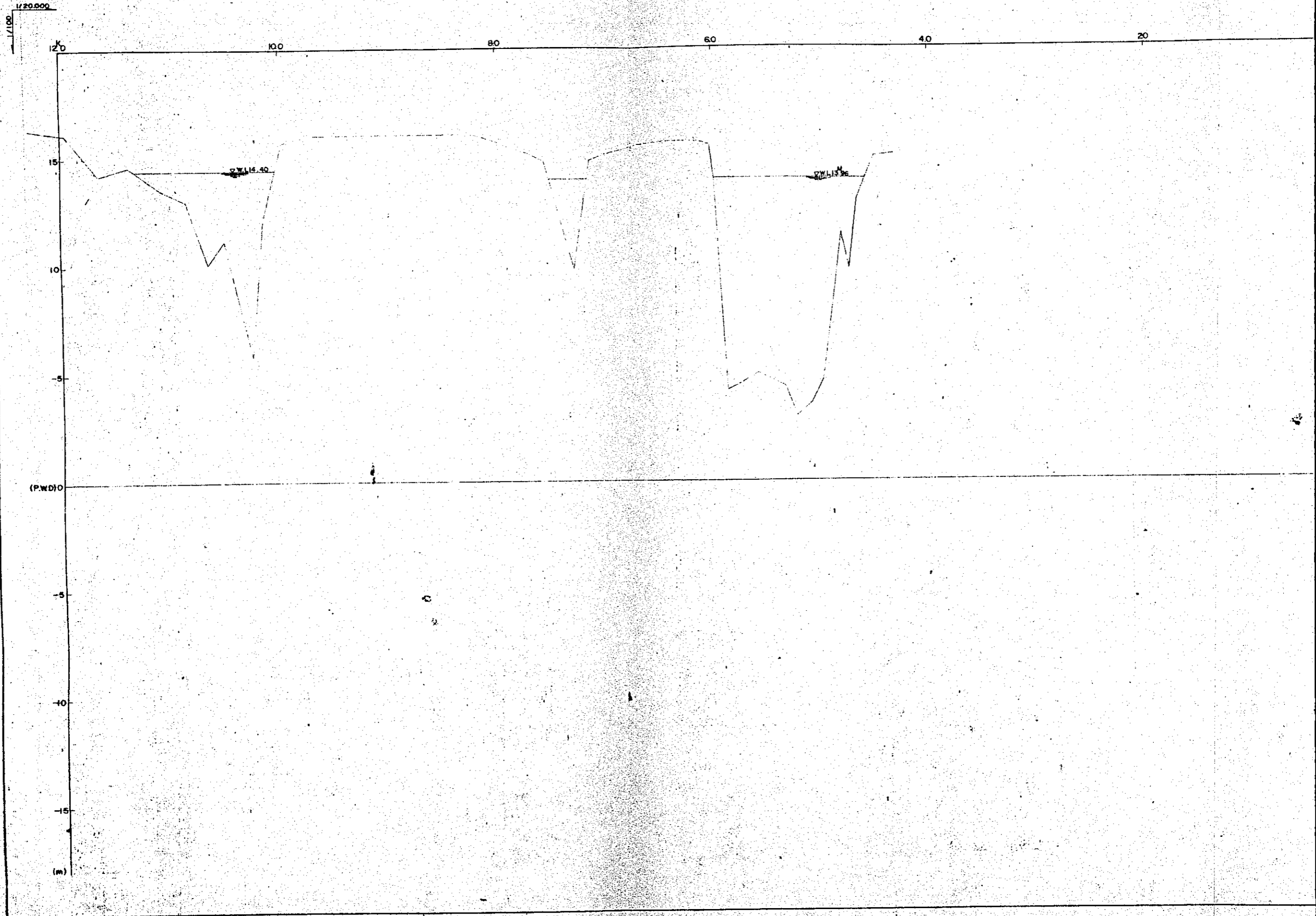
(Y+100)
0.0

-20



| | | | |
|---|--------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1/20000 V = 1/100 | APPROVED BY | |
| SHEET NO | G-12 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT.-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

G-13



G-13

80

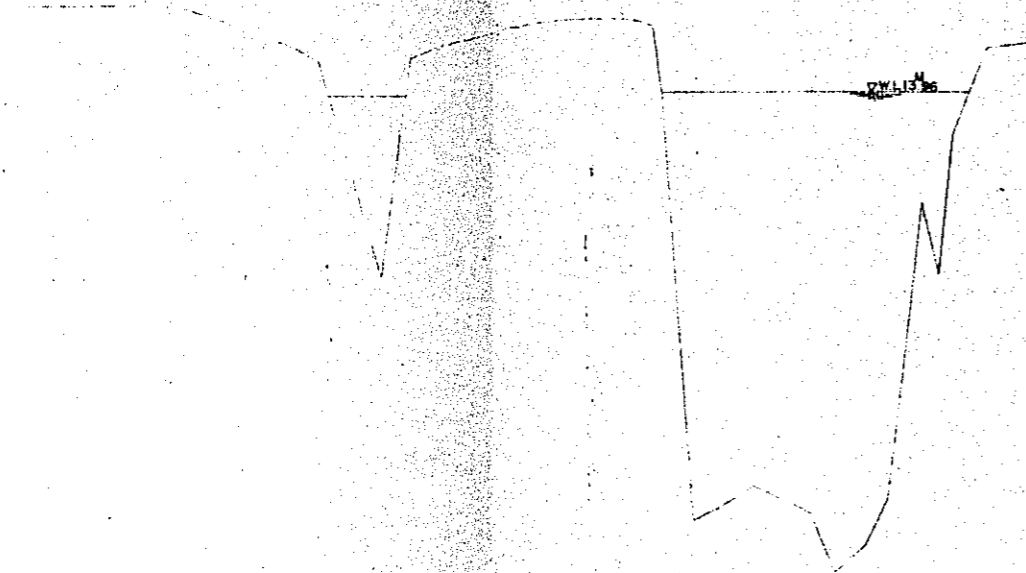
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40

20

00

-20

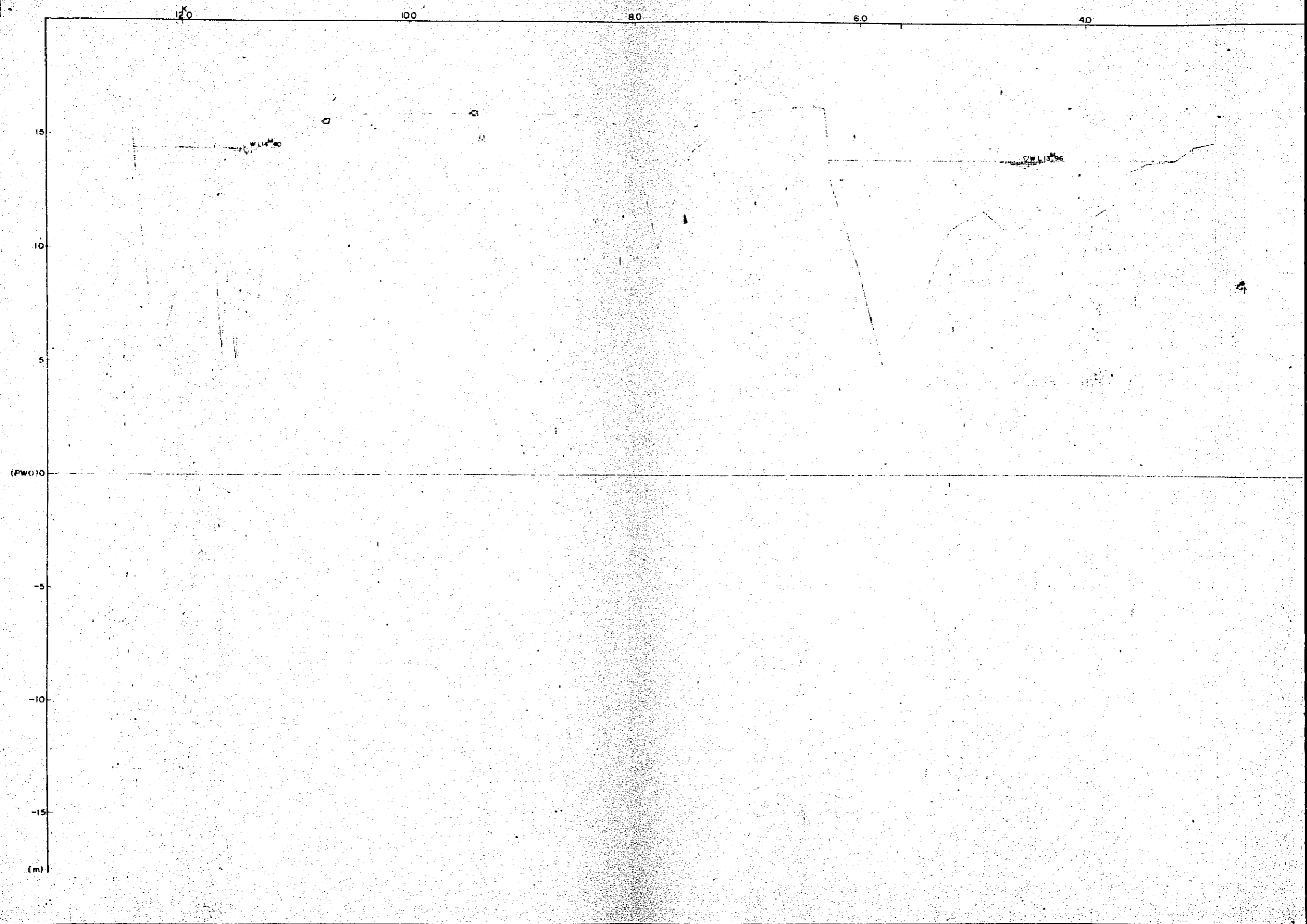


| | |
|---|-------------|
| PROJECT BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE GABARGAON | |
| TITLE LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE H = 1 / 20,000 V = 1 / 100 | APPROVED BY |
| SHEET NO G-13 | CHECKED BY |
| SURVEYED ON 16-19-OCT.-1973 | DRAWN BY |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

G-14

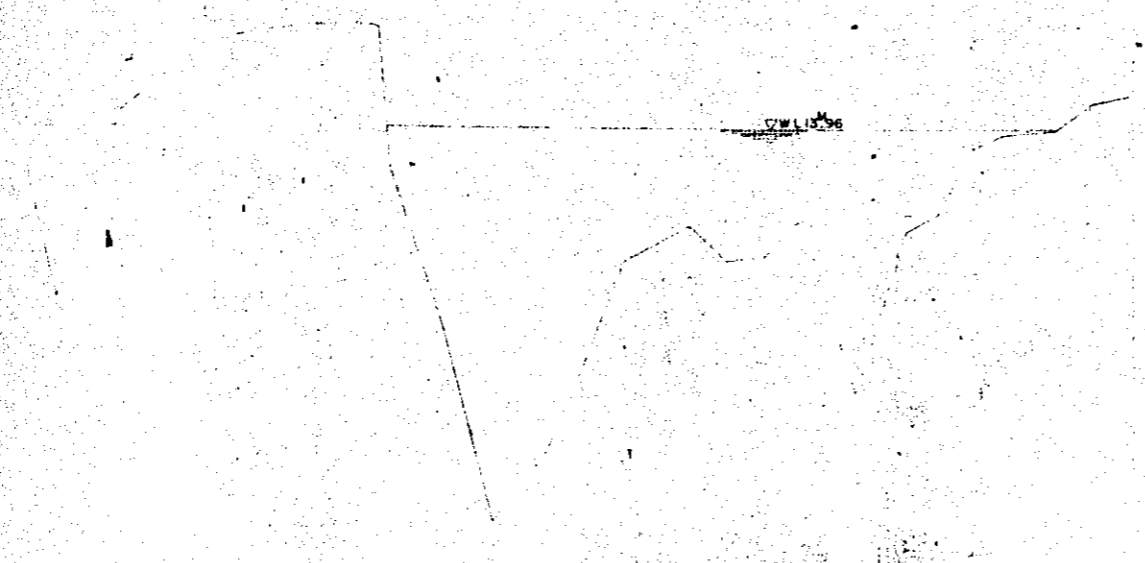
1/20,000

1/200



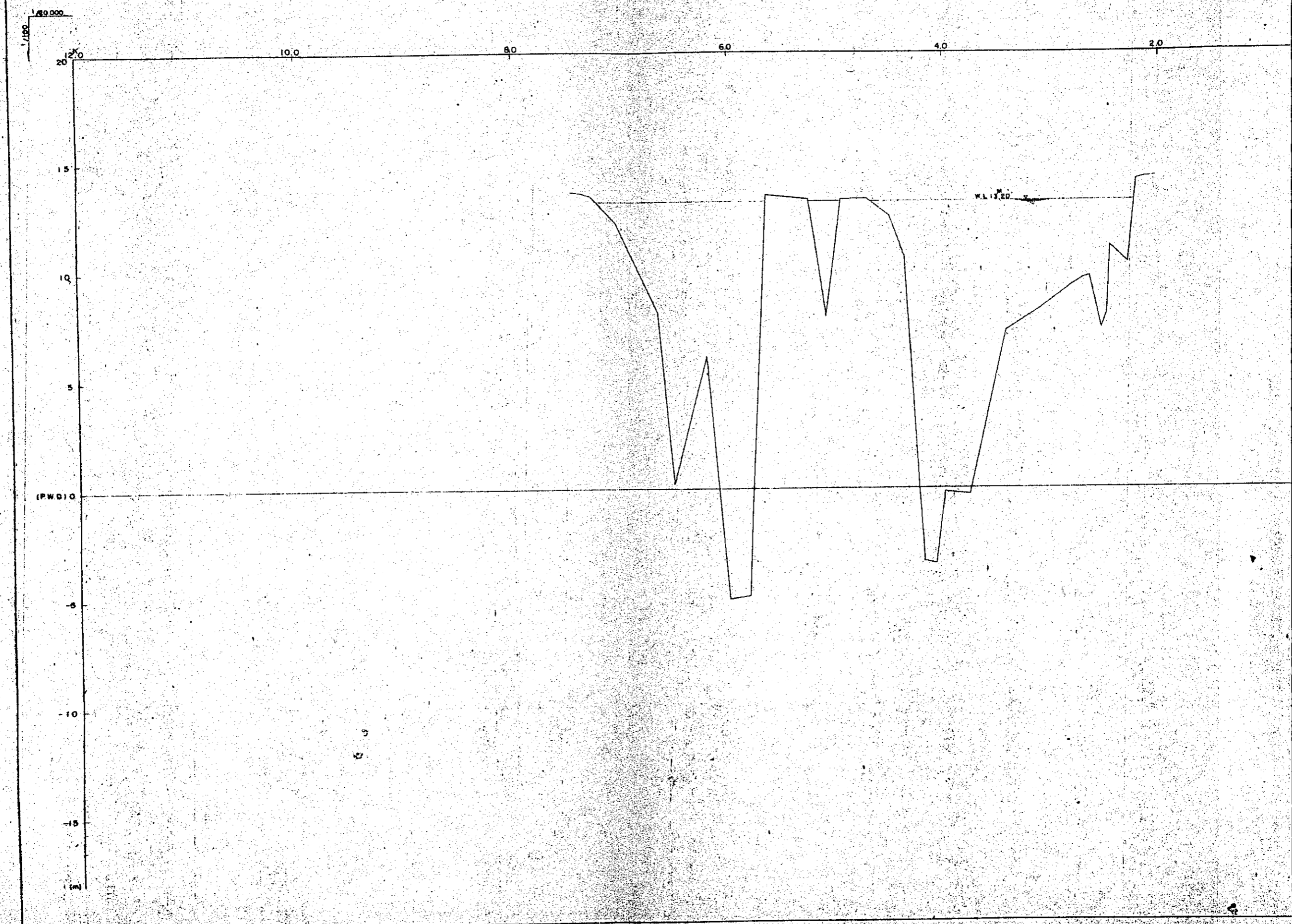
G-14

100 80 60 40 20 (Y=100) 00 -20



| | | | |
|---|---------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | GABARGAON | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND GABARGAON PROPOSED SITE | |
| SCALE | H = 1/20,000 V = 1/100 | APPROVED BY | |
| SHEET NO. | G-14 | CHECKED BY | |
| SURVEYED ON | 16-19-OCT-1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |

S - 1



S - 1

80

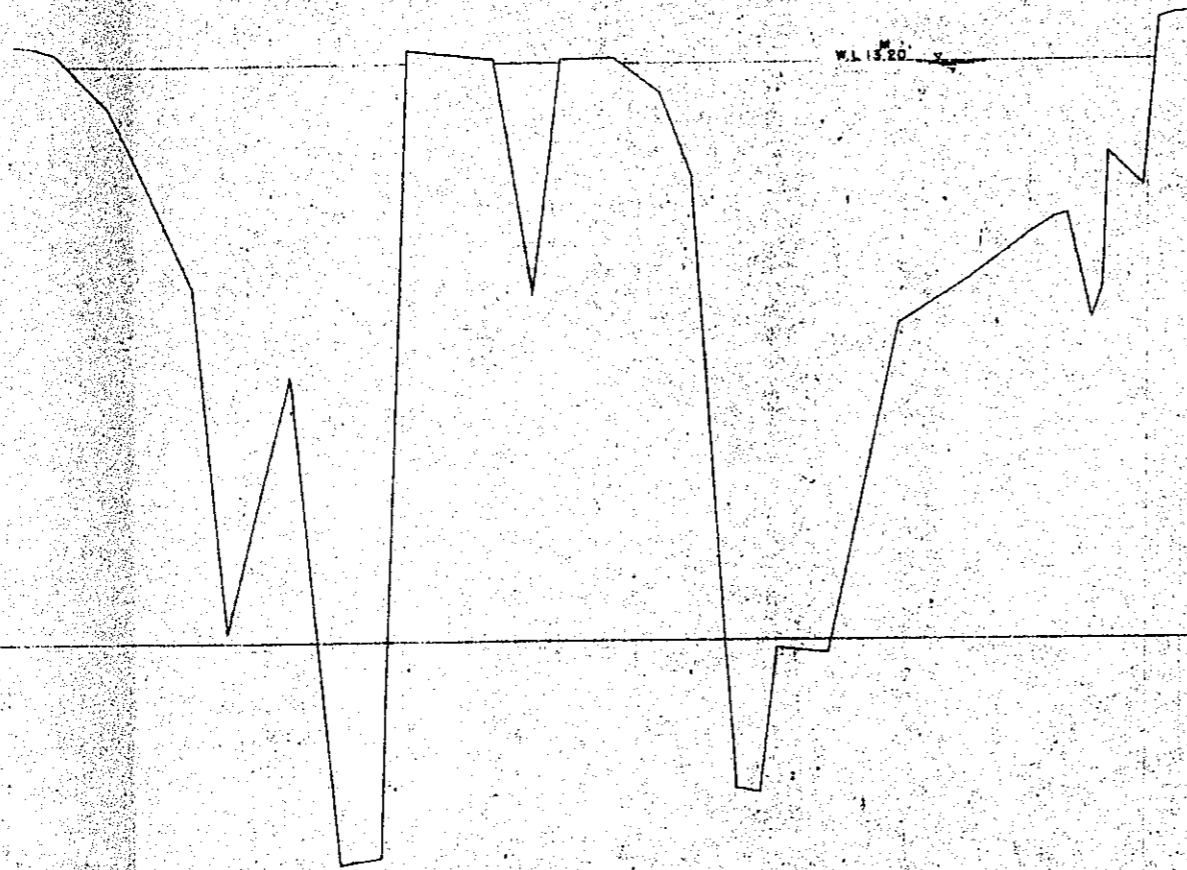
60

40

20

(Y = 20)
0.0

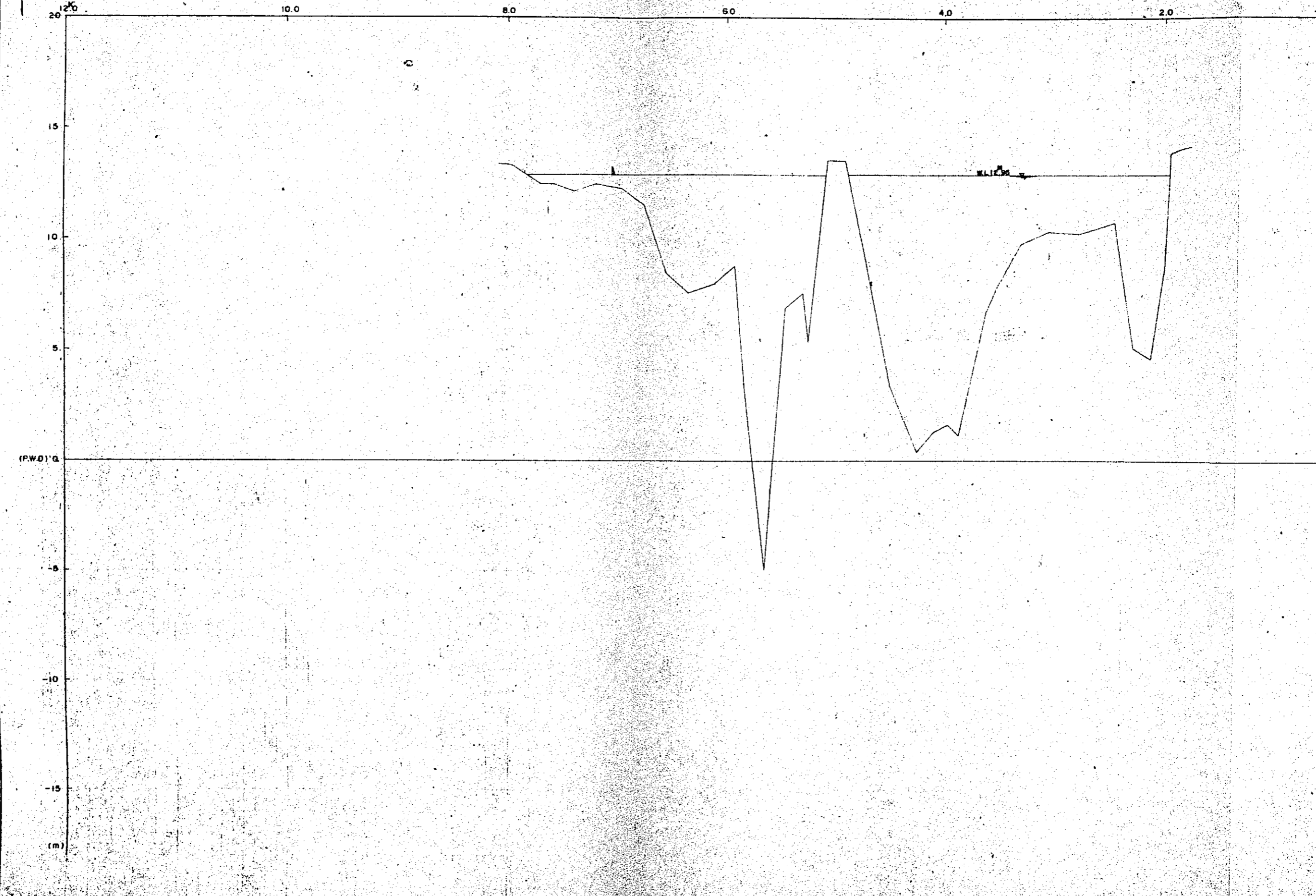
-20



| | |
|--|--------------|
| PROJECT: BANGLADESH JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE: SIRAJGANJ | |
| TITLE: LATERAL PROFILE OF THE JAMUNA RIVER AROUND SIRAJGANJ PROPOSED SITE | |
| SCALE: H: 1 / 20000 V: 1 / 100 | APPROVED BY: |
| SHEET NO: S - 1 | CHECKED BY: |
| SURVEYED ON: 18 - 26 - SEP - 1973 | DRAWN BY: |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | |
| REPORTED BY: INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | |

S-2

1/20 000
1/100



S - 2

8.0

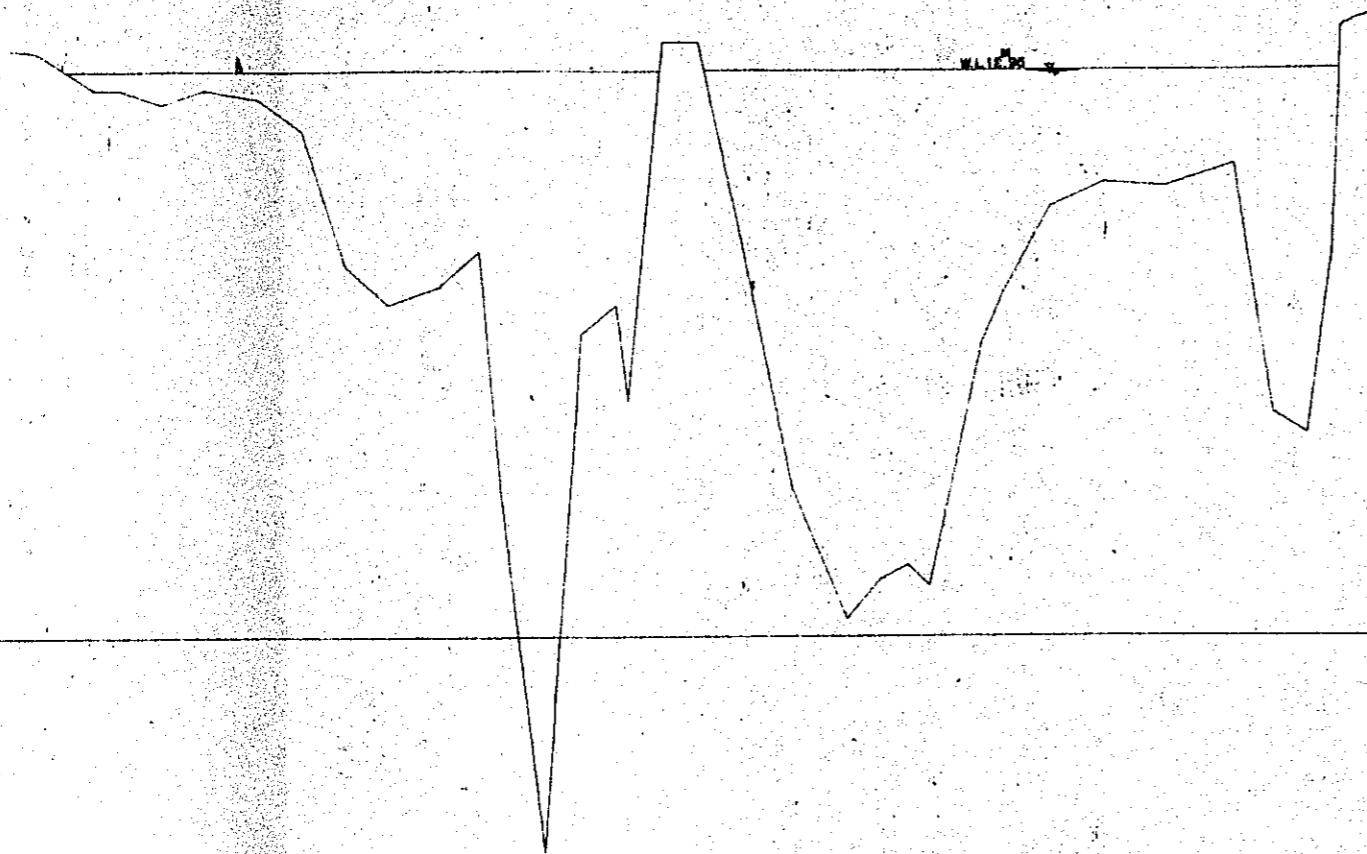
6.0

4.0

2.0

(Y=20)
0.0

2.0



| | | | |
|---|--------------------------|---|--|
| PROJECT | | BANGLADESH | |
| | | JAMUNA BRIDGE CONSTRUCTION PROJECT | |
| SITE | | SIRAJGANJ | |
| TITLE | | LATERAL PROFILE OF THE JAMUNA RIVER AROUND SIRAJGANJ PROPOSED SITE | |
| SCALE | H = 1/20000 V = 1/100 | APPROVED BY | |
| SHEET NO. | S - 2 | CHECKED BY | |
| SURVEYED ON | 18 - 26 SEP - 1973 | DRAWN BY | |
| OVERSEAS TECHNICAL CORPORATION AGENCY JAPAN | | | |
| REPORTED BY INTERNATIONAL ENGINEERING CONSULTANTS ASSOCIATION JAPAN | | | |