| PROJECT TITLE: <u>AYE</u> | RS RESIDENCE | ZONE ATLAS/DRNG. F | FILE #: C-20/D22, PWDN 9900139 |
|---------------------------|--|--|--|
| DRB #: | EPC #: | _ WORK ORDER #: | |
| LEGAL DESCRIPTION: | LOTS 16 BLOCK 13, Tract 3, Unit | 3, NORTH ALBUQUERQU | JE ACRES |
| CITY ADDRESS: 9520 | OAKLAND AVENUE, NE, ALB., NM | 87122 | |
| ENGINEERING FIRM: - | Advanced Engineering and Consulting, LLC | CONTACT: S | Shahab Biazar - |
| ADDRESS: 10205 S | Snowflake Ct. NW Alb., NM 87114 | _ PHONE: | (505) 899-5570 |
| OWNER: ROGER | AYERS | _ CONTACT: | |
| ADDRESS: 8300 W | yoming, NE, #3013, Alb., NM 87113 | PHONE: | |
| ARCHITECT: | · · · · · · · · · · · · · · · · · · · | CONTACT: | |
| ADDRESS: | | PHONE: | |
| SURVEYOR: | · | CONTACT: | |
| ADDRESS: | | PHONE: | |
| CONTRACTOR: | | CONTACT: | · · · · · · · · · · · · · · · · · · · |
| ADDRESS: | | PHONE: | |
| X GRADING PLA EROSION CON | GRADING & DRAINAGE PLAN N | PRELIMINAL S. DEV. PLAN S. DEV. PLAN SECTOR PLA FINAL PLAT | AN APPROVAL RY PLAT APPROVAL I FOR SUB'D. APPROVAL I FOR BLDG. PERMIT APPROVAL AN APPROVAL APPROVAL APPROVAL N PERMIT APPROVAL |
| | | | ERMIT APPROVAL E OF OCCUPANCY APPROVAL |
| PRE-DESIGN MEETING: YES | | | RMIT APPROVAL |
| NO | | PAVING PER | MIT APPROVAL |
| COPY PROVIDE | | S. A. D. DRAIN | NAGE REPORT |
| | | DRAINAGE R | EQUIREMENTS |
| | | OTHER - | |
| | | | |
| | | | |
| DATE SUBM | | * Sa | |

BY:

SHAHAB BIAZAR

County of Vernalillo

State of New Mexico

TOM RUTHERFORD, CHAIR
DISTRICT 3
BARBARA J. SEWARD, VICE CHAIR
DISTRICT 4
KEN SANCHEZ, MEMBER
DISTRICT 1
STEVE D. GALLEGOS, MEMBER
DISTRICT 2
LES HOUSTON, MEMBER
DISTRICT 5
JUAN R. VIGIL, COUNTY MANAGER



2400 BROADWAY, S.E.
ALBUQUERQUE, NEW MEXICO 87102
PUBLIC WORKS (505) 848-1500

MARK J. CARRILLO, ASSESSOR
JUDY D. WOODWARD, CLERK
IRA ROBINSON, PROBATE JUDGE
JOE BOWDICH, SHERIFF
ORLANDO VIGIL, TREASURER

August 19, 1999

Shahab Biazar, P.E.
Advanced Engineering and Consulting
10209 Snowflake Ct. NW
Albuquerque, New Mexico 87114

RE: Drainage Report and Grading and Drainage Plan for Ayers Residence, Lot 16, Block 13, Tract 3, Unit 3, NAA, (C20/D22) (PWDN 990139) Engineer's Stamp Dated 8/4/99.

Dear Shahab:

Based on the information provided in the submittal of August 4, 1999, the above referenced plan is approved for Building Permit release.

As you are aware, the Engineer's Certification is required prior to the release of the Certificate of Occupancy for this residence.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982, or contact Brad Catanach at the County.

Sincerely,

Susan M. Calongne, P.E.

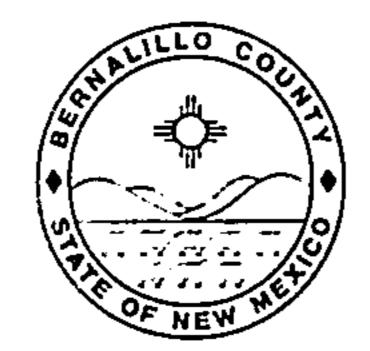
City/County Floodplain Administrator

c: Brad Catanach, P.E., Bernalillo County Public Works Division
Lisa Ann Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority
File

County of Vernalillo

State of New Mexico

TOM RUTHERFORD, CHAIR
DISTRICT 3
BARBARA J. SEWARD, VICE CHAIR
DISTRICT 4
KEN SANCHEZ, MEMBER
DISTRICT 1
STEVE D. GALLEGOS, MEMBER
DISTRICT 2
LES HOUSTON, MEMBER
DISTRICT 5
JUAN R. VIGIL, COUNTY MANAGER



2400 BROADWAY, S.E.
ALBUQUERQUE, NEW MEXICO 87102
PUBLIC WORKS (505) 848-1500

MARK J. CARRILLO, ASSESSOR
JUDY D. WOODWARD, CLERK
IRA ROBINSON, PROBATE JUDGE
JOE BOWDICH, SHERIFF
ORLANDO VIGIL, TREASURER
July 21, 1999

Shahab Biazar, P.E.

Advanced Engineering and Consulting 10209 Snowflake Ct. NW Albuquerque, New Mexico 87114

RE: Drainage Report and Grading and Drainage Plan for Ayers Residence, Lot 16, Block 13, Tract 3, Unit 3, NAA, (C20/D22) (PWDN 990139) Engineer's Stamp Dated 7/7/99.

Dear Shahab:

This letter is a compilation of comments from my office as well as from County Public Works and AMAFCA. Prior to approval of the above referenced plan, the following comments must be addressed:

- 1. This site is located along the main La Cueva arroyo, one of the major arroyos in NAA. Since this arroyo is very wide and braided, predicting the dominant flow path can be difficult. It appears that the runoff from smaller rainfall events may occur predominately within the northern thalweg located just south of this Lot, thus becoming the dominant flow path in the 100-year events. Therefore, it may not be prudent to assume that the dominant flow is 130' south of the property. Please plot the erosion setback (ESB) limits on the plan. Any development proposed within the ESB must be constructed to scour depth, therefore a scour analysis and scour protection is required.
- 2. The plan shows the limits of the 100-year WSEL. Is this the water surface from your calculations, or the FEMA floodplain limit? Please plot the FEMA floodplain limit on the plan. Also plot the WSEL and EGL from your analysis for comparison. Show the locations of some of the cross sections through the Lot on the plan. Also plot the energy grade line (EGL) and proposed AMAFCA easement. Is the finish floor elevation higher than the EGL?

Due to the difficulty of this Lot, you may wish to research the drainage plan for Lot 15 adjacent to this site (City drainage file C20/D13). If you have any questions regarding these comments, please call me at 924-3982, or contact Brad Catanach at the County.

Sincerely,

Susan M. Calongne, P.E.

City/County Floodplain Administrator

c: Brad Catanach, P.E., Bernalillo County Public Works Division
Lisa Ann Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority
File

| PROJECT TITLE: | AYERS RESIDENCE | ZONE ATLAS/DRN | G. FILE #: C-20 DOGS | | | |
|-----------------|---|------------------|---|--|--|--|
| DRB #: | EPC #: | WORK ORDER #: | | | | |
| LEGAL DESCRIPT | ION: LOTS 16 BLOCK 13, Tract 3, Unit | 3, NORTH ALBUQUE | RQUE ACRES | | | |
| CITY ADDRESS: | 9520 OAKLAND AVENUE, NE, ALB., NM | 87122 | • • • • • • • • • • • • • • • • • • • | | | |
| ENGINEERING FIR | M: Advanced Engineering and Consulting, LLC | _ CONTACT: | Shahab Biazar | | | |
| ADDRESS: | 10205 Snowflake Ct. NW Alb., NM 87114 | PHONE: | (505) 899-5570 | | | |
| OWNER: R | OGER AYERS | CONTACT: | | | | |
| ADDRESS: | 8300 Wyoming, NE, # 3013, Alb., NM 87113 | _ PHONE: | | | | |
| ARCHITECT: | · · · · · · · · · · · · · · · · · · · | _ CONTACT: | | | | |
| ADDRESS: | , , , , , , , , , , , , , , , , , , , | PHONE: | | | | |
| SURVEYOR: | · | CONTACT: | | | | |
| ADDRESS: | | PHONE: | | | | |
| CONTRACTOR: | | CONTACT: | | | | |
| ADDRESS: | | PHONE: | | | | |
| X GRADIA EROSIO | AGE PLAN EPTUAL GRADING & DRAINAGE PLAN NG PLAN ON CONTROL PLAN | S. DEV. I | INARY PLAT APPROVAL PLAN FOR SUB'D. APPROVAL PLAN FOR BLDG. PERMIT APPROVAL R PLAN APPROVAL | | | |
| | EER'S CERTIFICATION | | LAT APPROVAL | | | |
| OTHER | | X BUILDIN | TION PERMIT APPROVAL IGATE OF OCCUPANCE APPROVAT | | | |
| PRE-DESIGN MEET | ΓING: | | ICATE OF OCCUPANCY APPROVAL G PERMIT APPROVAL | | | |
| YES | | | PERMIT APPROVAL | | | |
| NO | | | RAINAGE REPORT | | | |
| COPY F | PROVIDED | | GE REQUIREMENTS | | | |
| DAT | 'E SUBMITTED: 07/06/99 | OTHER | D © © W © D JUL 07 1999 HYDROLOGY SECTION | | | |

BY:

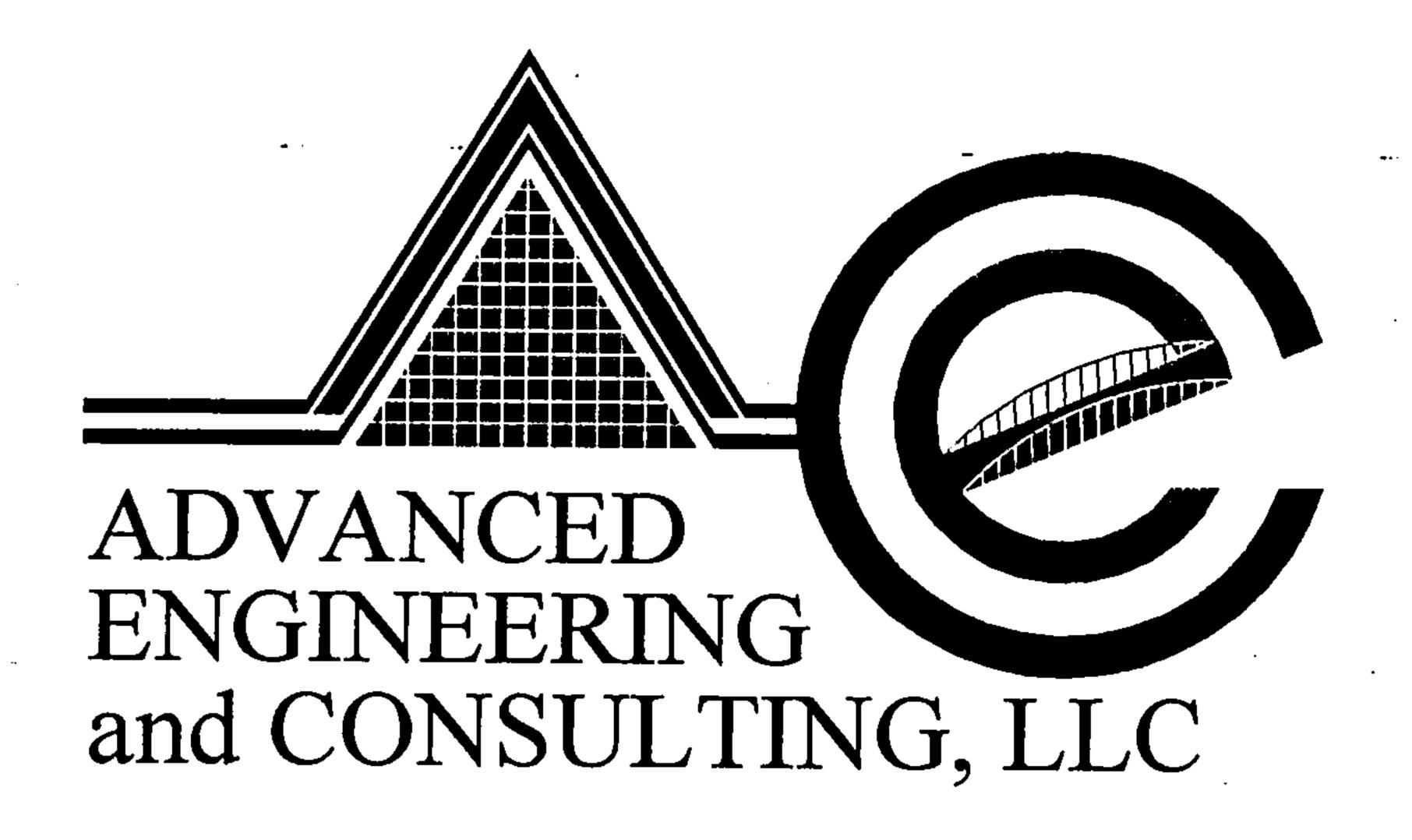
SHAHAB BIAZAR

| PROJECT TITLE: | AYERS RESIDENCE | ZONE ATLAS/DRNG. | FILE #: C-20 | | | |
|----------------|---|----------------------------|---------------------------------------|--|--|--|
| DRB #: EPC #: | | _ WORK ORDER #: | · | | | |
| LEGAL DESCRIP | TION: LOTS 16 BLOCK 13, Tract 3, Unit | 3, NORTH ALBUQUERO | QUE ACRES | | | |
| CITY ADDRESS: | 9520 OAKLAND AVENUE, NE, ALB., NM | 87122 | | | | |
| ENGINEERING F | IRM: Advanced Engineering and Consulting, LLC | _ CONTACT: | Shahab Biazar | | | |
| ADDRESS: | 10205 Snowflake Ct. NW Alb., NM 87114 | PHONE: | (505) 899-5570 | | | |
| OWNER: | ROGER AYERS | CONTACT: | • | | | |
| ADDRESS: | 8300 Wyoming, NE, # 3013, Alb., NM 87113 | _ PHONE: | · · · · · · · · · · · · · · · · · · · | | | |
| ARCHITECT: | | CONTACT: | · . | | | |
| ADDRESS: | | _ PHONE: _ | | | | |
| SURVEYOR: | | CONTACT: | | | | |
| ADDRESS: | | _ PHONE: _ | | | | |
| CONTRACTOR: | | _ CONTACT: | | | | |
| ADDRESS: | | PHONE: | | | | |
| | | - | | | | |
| TYPE OF SUBMIT | TAL: | CHECK TYPE OF APP | ROVAL SOUGHT: | | | |
| X DRAIN | NAGE REPORT | SKETCH PLAN APPROVAL | | | | |
| DRAIN | NAGE PLAN | PRELIMINARY PLAT APPROVAL | | | | |
| CONC | EPTUAL GRADING & DRAINAGE PLAN | S. DEV. PL | AN FOR SUB'D. APPROVAL | | | |
| X GRAD | ING PLAN | S. DEV. PL | AN FOR BLDG. PERMIT APPROVAL | | | |
| EROS | ION CONTROL PLAN | SECTOR PLAN APPROVAL | | | | |
| ENGIN | NEER'S CERTIFICATION | FINAL PLA | AT APPROVAL | | | |
| OTHEI | R . | FOUNDATION PERMIT APPROVAL | | | | |
| | • | X BUILDING | PERMIT APPROVAL | | | |
| PRE-DESIGN MEE | ETING: | CERTIFIC | ATE OF OCCUPANCY APPROVAL | | | |
| YES | | X GRADING | PERMIT APPROVAL | | | |
| NO | | PAVING P | ERMIT APPROVAL | | | |
| COPY | PROVIDED | S. A. D. DR | AINAGE REPORT | | | |
| · | | DRAINAGI | E REQUIREMENTS | | | |
| ÷. | | OTHER | | | | |
| • | | | | | | |
| DA | TE SUBMITTED: 07 / 06 / 99 | | D) 国 (| | | |
| | BY: SHAHAB BIAZAR | | HYDROLOGY SECTION | | | |

DRAINAGE REPORT FOR

Lots 16, Block 13, Tract 3, Unit 3, North Albuquerque Acres

Prepared by:



10205 Snowflake Ct. NW Albuquerque, New Mexico 87114

Prepared For:

Roger Ayers 8300 Wyoming Boulevard, NE, Apt.# 3013 Albuquerque, New Mexico 87113

July, 1999



Shahab Biazar PE NO. 13479

Location

Lots 16, Block 13, Tract 3, Unit 3 of North Albuquerque Acres is a ± 0.727 acre site which is located at southwest corner of Oakland Avenue and Holbrook Street. See attached vicinity map for location.

Purpose

Advanced Engineering and Consulting, LLC on behalf of Roger Ayers has prepared this grading and drainage solution for the proposed site. This grading and drainage plan is prepared in order to obtain grading and drainage approval as well as building permit approval for Mr. Ayers future house.

Existing Drainage Conditions

The site slopes from north to south and drains to an existing arroyo located at the southerly portion of the property. The site at existing conditions generates 1.37 cfs under a 100-year, 6-hour storm. As shown on FIRM Map number 35001C0141-D the southerly portion of the site falls within a 100-year flood plain, Zone AO (depth 2). Based on the Resource Technology, Inc. Hydrology Maps Exhibit 8, Basin 110.0, AP (analysis point and flow rates) 110.90, the flood plain is created based on a 100-year storm runoff of 3048.00 cfs. A reduced copy the Exhibit 8 is located in the map pocket.

Proposed Conditions and On-Site/Offsite Drainage Management Plan

The owners are proposing to build ± 4000 sf new building. The drainage patterns, for onsite and offsite, will remain the same. Under proposed conditions the site, at a flow rate of 2.08 cfs, will continue to drain south to the existing arroyo.

We have calculated the 100-year water surface elevation using HEC-RAS. The approximate location of the bank line of the main arroyo are shown on the HEC-RAS Cross-Section Plan. The main arroyo which carries the dominant flow is located ±130' south of the southerly boundary line.

An erosion setback was calculated using the Center line Setback (CSB, 178.54') and Bankline Setback (BSB, 208.45'). A Center Line Setback of 219.79' also was calculated using the 6 feet per 100 cfs plus the half of the W_D . The floodplain is fairly wide, and the setbacks (CSB & BSB) falls within the 100-year water surface elevation. Since the floodplain is so wide and the main arroyo is $\pm 130'$ south of the southerly boundary line no flood damage will danger the Ayers future resident. The house will be maintained 30' away from the 100-year water surface elevation.

Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, revised January 1993, was used for the runoff calculations. The site falls under Zone 4 based on Figure A-1 of page A-1. We used HEC-Ras program to calculate the hydraulics of the arroyo. We also used "Sediment and Erosion Design Guide" prepared by AMAFCA to calculate the erosion set back into the tract.

water the word

RUNOFF DRAINAGE DATA

The site is @ Zone 3

DEPTH (INCHES) @ 100-YEAR STORM

 $P_{60} = 2.14$ inches

 $P_{360} = 2.60 \text{ inches}$

 $P_{1440} = 3.10 \text{ inches}$

DEPTH (INCHES) @ 10-YEAR STORM

 $P_{60} = 2.14 \times 0.667$

= 1.43 inches

 $P_{360} = 1.73$

 $P_{1440} = 2.07$

See the summary output from AHYMO calculations.

Also see the following summary tables.

斯斯斯

RUNOFF CALCULATION RESULTS

| BASIN | AREA (SF) | AREA (AC) | AREA (MI²) |
|---------|-----------|-----------|------------|
| Lots 16 | 31675.09 | 0.72716 | 0.001136 |

PROPOSED

| BASIN | Q-100 | Q-10 | TREATMENT |
|---------|-------|------|--------------------|
| - | CFS | CFS | A, B, C, D |
| Lots 16 | 2.08 | 1.00 | 43%, 20%, 20%, 17% |

EXISTING

| BASIN | Q-100 | Q-10 | TREATMENT |
|---------|-------|------|------------------|
| | CFS | CFS | A, B, C, D |
| Lots 16 | 1.37 | 0.41 | 100%, 0%, 0%, 0% |

EROSION SETBACK

Erosion setback per Sediment & Erosion Design Guide Section 3.4.5:

Assuming the worse case scenario (Q=3048.00 cfs, end of Basin 110.0, AP 110.90*)

Q_d = Dominant Discharge

$$Q_d = 0.2 Q_{100}$$

(Eq. 3.77)

$$Q_d = 0.2(3048) = 609.60 \text{ cfs}$$

Sc =Critical Slope

$$Sc = 0.037Q_{D}^{-0.133}$$

(Eq. 3.80)

$$Sc = 0.037(609.60)^{-0.133} = 0.0158$$

$$W_D = 4.6Q_D^{0.4}$$

(Eq. 3.78)

$$W_D = 4.6(609.60)^{0.4} = 59.81$$

For 200 cfs
$$< Q_D \le 2000$$
 cfs
Use $Y/W_D = 0.80 + 4log(Q_D)$

(Eq. 3.74b)

$$Y = 59.81(0.80 + 4\log(609.60)) = 714.14$$

Lateral Erosion Distance Lv = y/2

$$Lv = 714.14/2 = 357.07$$

$$\Delta$$
Max = Lv/2 307.07/2 = 178.54' (bankline setback, BSB)

CSB =
$$\Delta$$
Max + 0.50 W_D
= 178.54 + 0.50(59.81) = 208.45' (centerline setback, CSB)

The width of the floodplain is fairly wide and the setback falls within the floodplain.

Also, the setback can be calculated as:

$$CSB = 3048/100*6 + 0.50(59.81) = 212.79'$$
 (use this instead fof 208.45')

* Exhibit 8, Hydrology Maps, Prepared by Resource Technology. See this report for a copy of this exhibit.

```
* LOTS 16, ZONE 3
         100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS)
START
RAINFALL
                    TYPE=1 RAIN QUARTER=0.0 IN
                    RAIN ONE=2.14 IN RAIN SIX=2.60 IN
                   RAIN DELAY=3.10 IN DT=0.03333 HR
COMPUTE NM HYD
                    ID=1 HYD NO=100.0 AREA=0.001136 SQ MI
                   PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00
                   TP=0.1333 HR MASS RAINFALL=-1
          10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS)
START
                    TIME=0.0
RAINFALL
                   TYPE=1 RAIN QUARTER=0.0 IN
                   RAIN ONE=1.43 IN RAIN SIX=1.73 IN
                   RAIN DAY=2.07 IN DT=0.03333 HR
COMPUTE NM HYD
                   ID=1 HYD NO=110.0 AREA=0.001136 SQ MI
                   PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00
                   TP=0.1333 HR MASS RAINFALL=-1
        100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS)
START
RAINFALL
                 .. TYPE=1 RAIN QUARTER=0.0 IN
                   RAIN ONE=2.14 IN RAIN SIX=2.60 IN
                   RAIN DELAY=3.10 IN DT=0.03333 HR
COMPUTE NM HYD
                   ID=1 HYD NO=101.0 AREA=0.001136 SQ MI
                   PER A=43.00 PER B=20.00 PER C=20.00 PER D=17.00
                   TP=0.1333 HR MASS RAINFALL=-1
           ******************
         10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS)
```

START

TIME=0.0

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.43 IN RAIN SIX=1.73 IN

RAIN DAY=2.07 IN DT=0.03333 HR

COMPUTE NM HYD

ID=1 HYD NO=111.0 AREA=0.001136 SQ MI

PER A=43.00 PER B=20.00 PER C=20.00 PER D=17.00

TP=0.1333 HR MASS RAINFALL=-1

FINISH

相

| AHYMO SUMMAR INPUT FILE = | RY TABLE (AHYMO19 = 9933 | 94) - A | MAFCA | Hydrologic Moo | del - January, | 1994 | RUN DATE | E (MON/DAY) | YR) =07 | | 帳 |
|------------------------------|------------------------------|----------------|-----------------|-----------------|----------------------------|-----------------------------|--------------------|----------------------|--------------------|----------|-------|
| COMMAND | HYDROGRAPI IDENTIFICATION | | TO ID NO. | AREA (SQ MI) | PEAK DISCHARGE (CFS) | RUNOFF VOLUME (AC-FT) | RUNOFF (INCHES) | TIME TO PEAK (HOURS) | CFS PER ACRE | PAGE : | • |
| START | | | | | - | - | | | | | |
| | 'PE= 1 · | | | | | | • | | | TIME= | .00 |
| COMPUTE NM H | |) - | 1 | 00117 | 4 77 | | | | | RAIN6= | 2.600 |
| START | | , - | • | .00114 | 1.37 | .040 | .65514 | 1.533 | 1.882 | PER IMP= | .00 |
| | PE= 1 | | | | | | | • | | TIME= | .00 |
| COMPUTE NM H | |) - | 1 | .00114 | . 1 | 04.4 | 40074 | 4 555 | | RAIN6= | 1.730 |
| START | | | • | .00114 | .41 | .011 | .18834 | 1.533 | .564 | PER IMP= | |
| RAINFALL TY | PE= 1 | | | | | | | | | TIME= | .00 |
| COMPUTE NM H | • | } - | 1 | .00114 | 2.08 | 047 | 1 00771 | 4 500 | 2 2/2 | RAIN6= | 2.600 |
| START | | | • | .00114 | . 2.00 | .067 | 1.09771 | 1.500 | 2.860 | PER IMP= | 17.00 |
| RAINFALL TY | PE= 1 | | | | | | | | | TIME= | .00 |
| COMPUTE NM H | |) - | 1 | .00114 | 1 00 | 074 | 50570 | 4 500 | 4 | RAIN6= | 1.730 |
| EINICH | | • | • | .00114 | 1.00 | .031 | .50572 | 1.500 | 1.370 | PER IMP= | 17.00 |

.

FINISH

HEC-RAS OUTPUT FILE

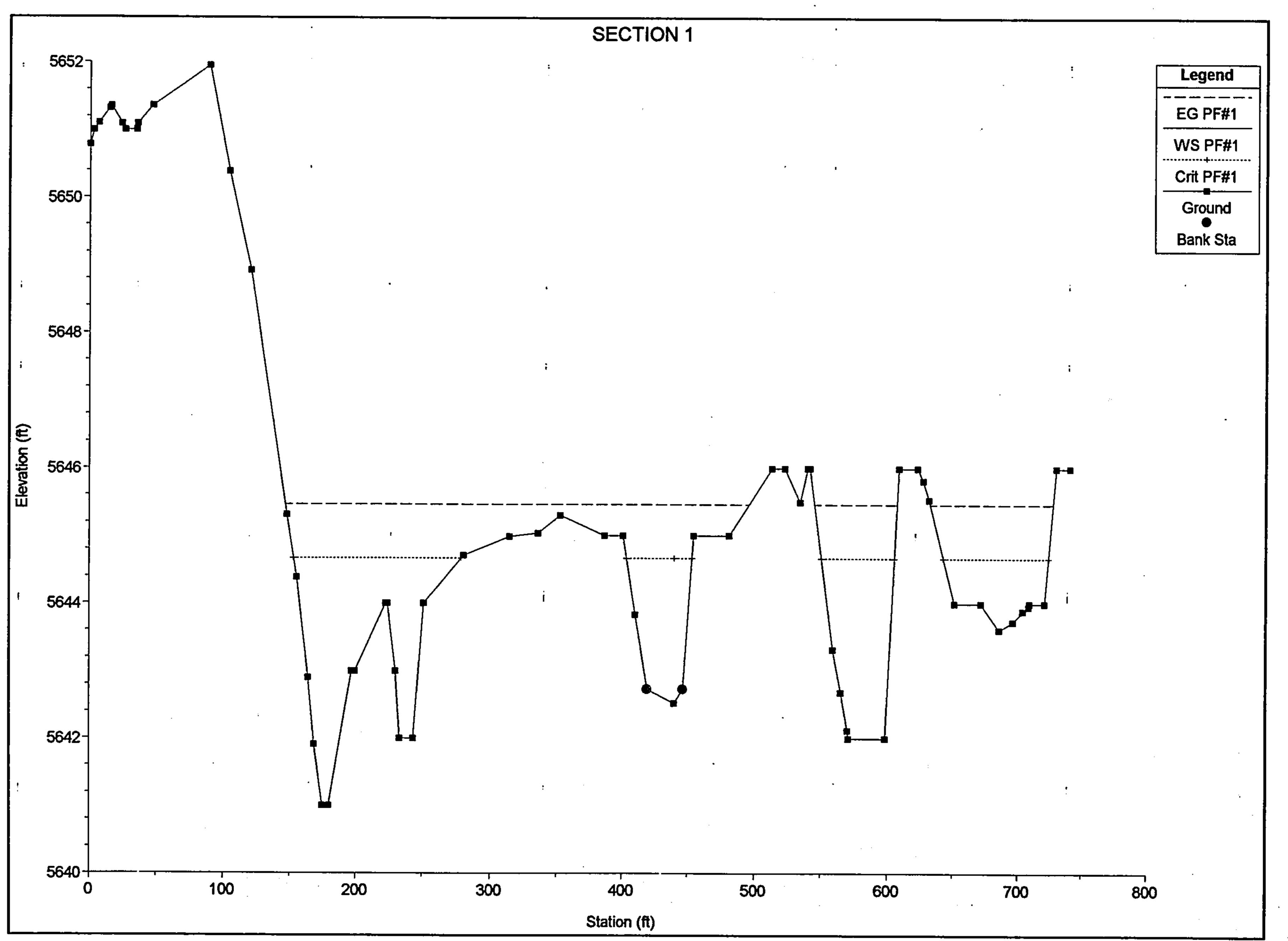
HEC-RAS Plan: N Alb. Acres BASIN 110.0 Reach: LOT 16

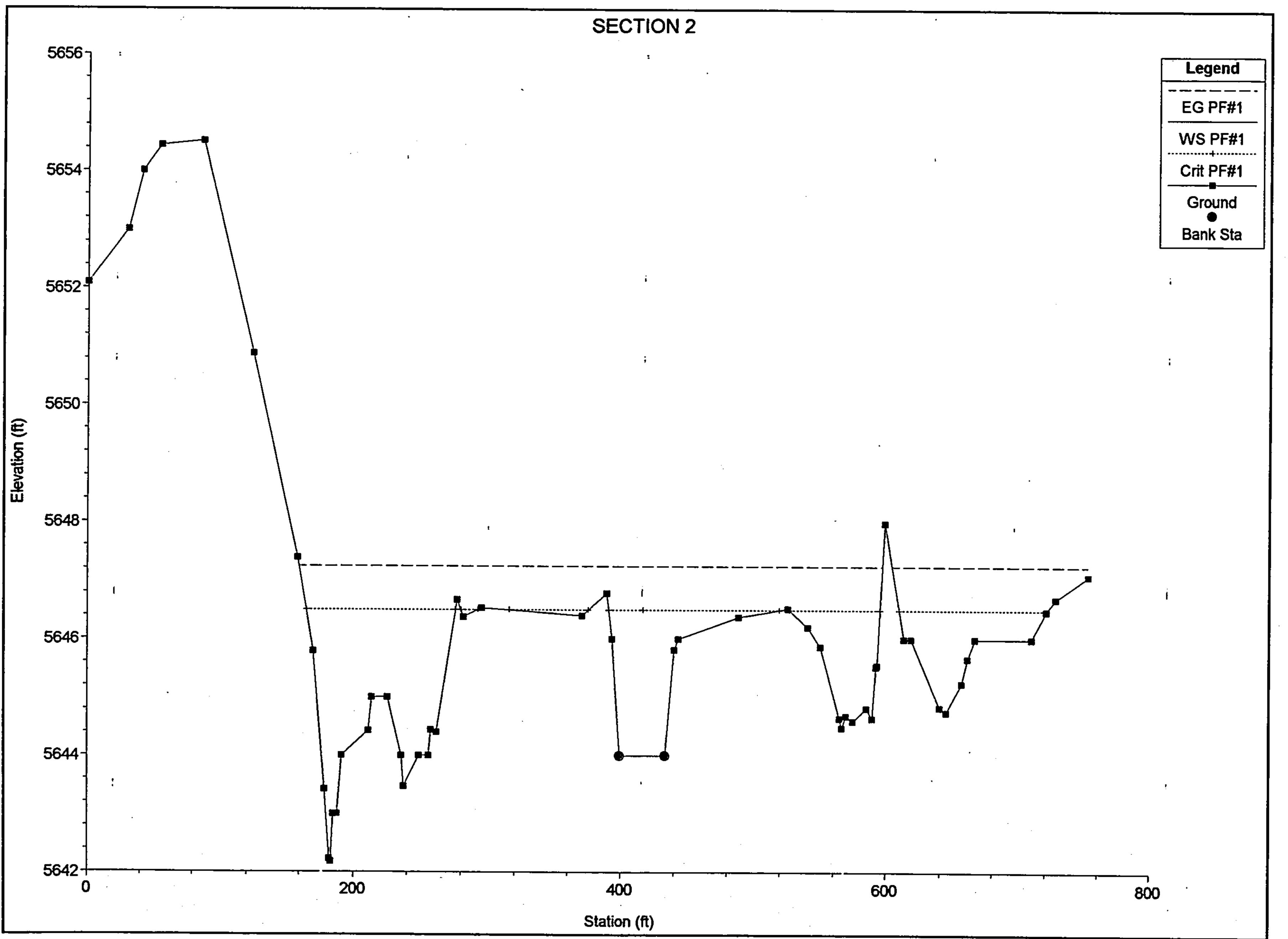
| River | O Total | Min Ch El | W.S. Elev | Crit W S | E.G. Elev | E.G. Slope | Val Chal | Flory Aron | Ton 117: 141 | E 1 // O1 1 |
|-------|---------|-----------|-----------|----------|-------------|------------|----------|------------|--------------|--------------|
| Sta. | (cfs) | | _ | | | _ | | | 1 op wiath | Froude # Chl |
| Sta. | (018) | (ft) | (ft) | (ft) | <u>(ft)</u> | (ft/ft) | (ft/s) | (sq ft) | (sq ft) | (ft) |
| 7 | 3048 | 5650.00 | 5652.84 | 5652.84 | 5653.34 | 0.0101 | 7.61 | 674.07 | 615.76 | 0.87 |
| 6 | 3048 | 5649.00 | 5650.74 | 5650.74 | 5651.30 | 0.0172 | 7.89 | 555.40 | 489.62 | |
| 5 | 3048 | 5648.17 | 5650.37 | 5650.37 | 5650.87 | 0.0125 | 7.49 | 644.16 | 624.70 | |
| 4 | 3048 | 5646.70 | 5649.52 | 5649.52 | 5650.25 | 0.0148 | 9.80 | 509.26 | <u> </u> | |
| 3 | 3048 | 5645.00 | 5647.93 | 5647.93 | 5648.64 | 0.0134 | 10.00 | 561.02 | 451.97 | |
| 2 | 3048 | 5644.00 | 5646.50 | 5646.50 | 5647.24 | 0.0150 | 9.57 | 519.58 | 492.63 | |
| 1 | 3048 | 5642.52 | 5644.67 | 5644.67 | 5645.46 | 0.0210 | 9.92 | 449.27 | 311.64 | |

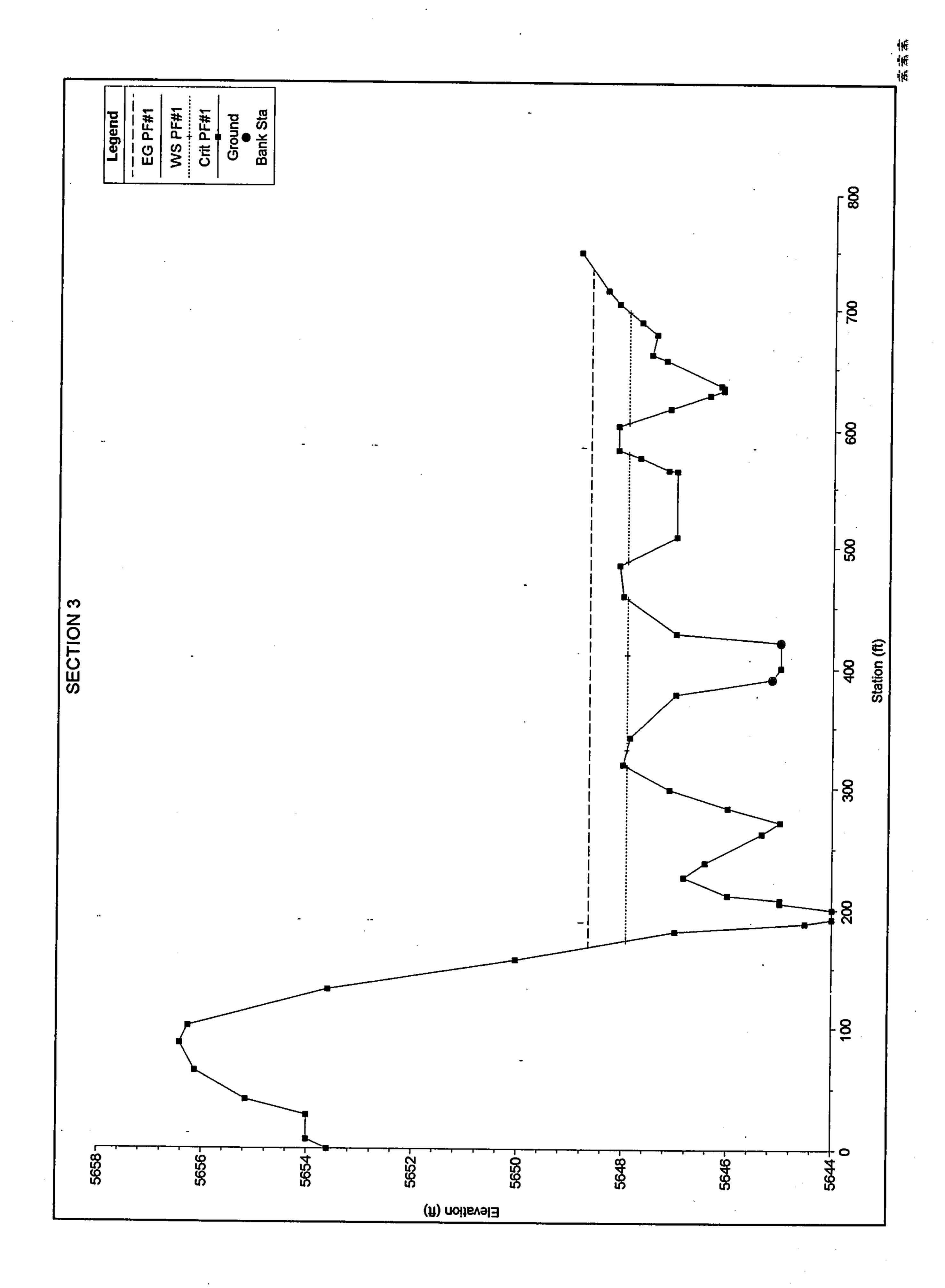
Legend WS PF#1 Ground

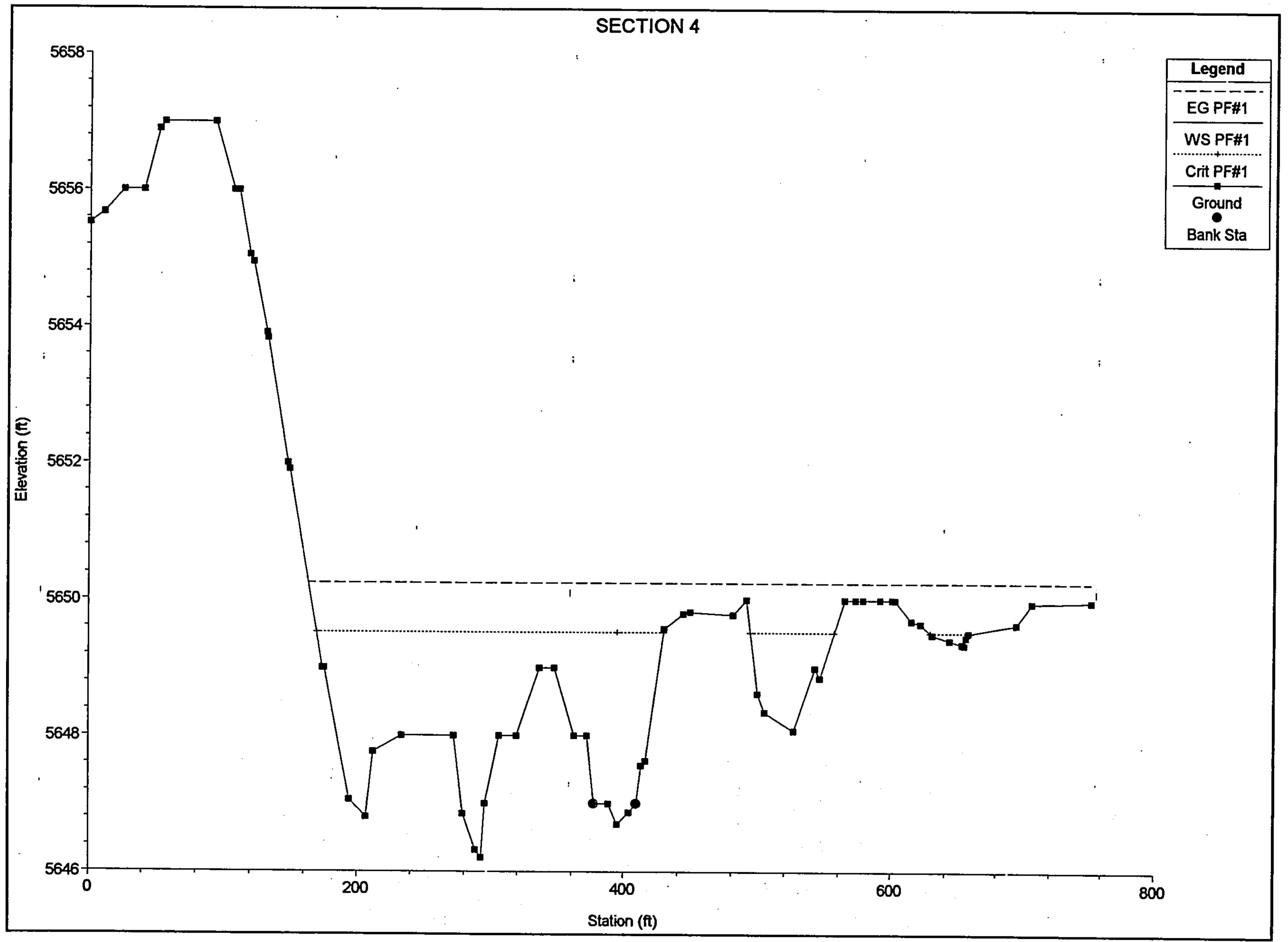
Bank Sta

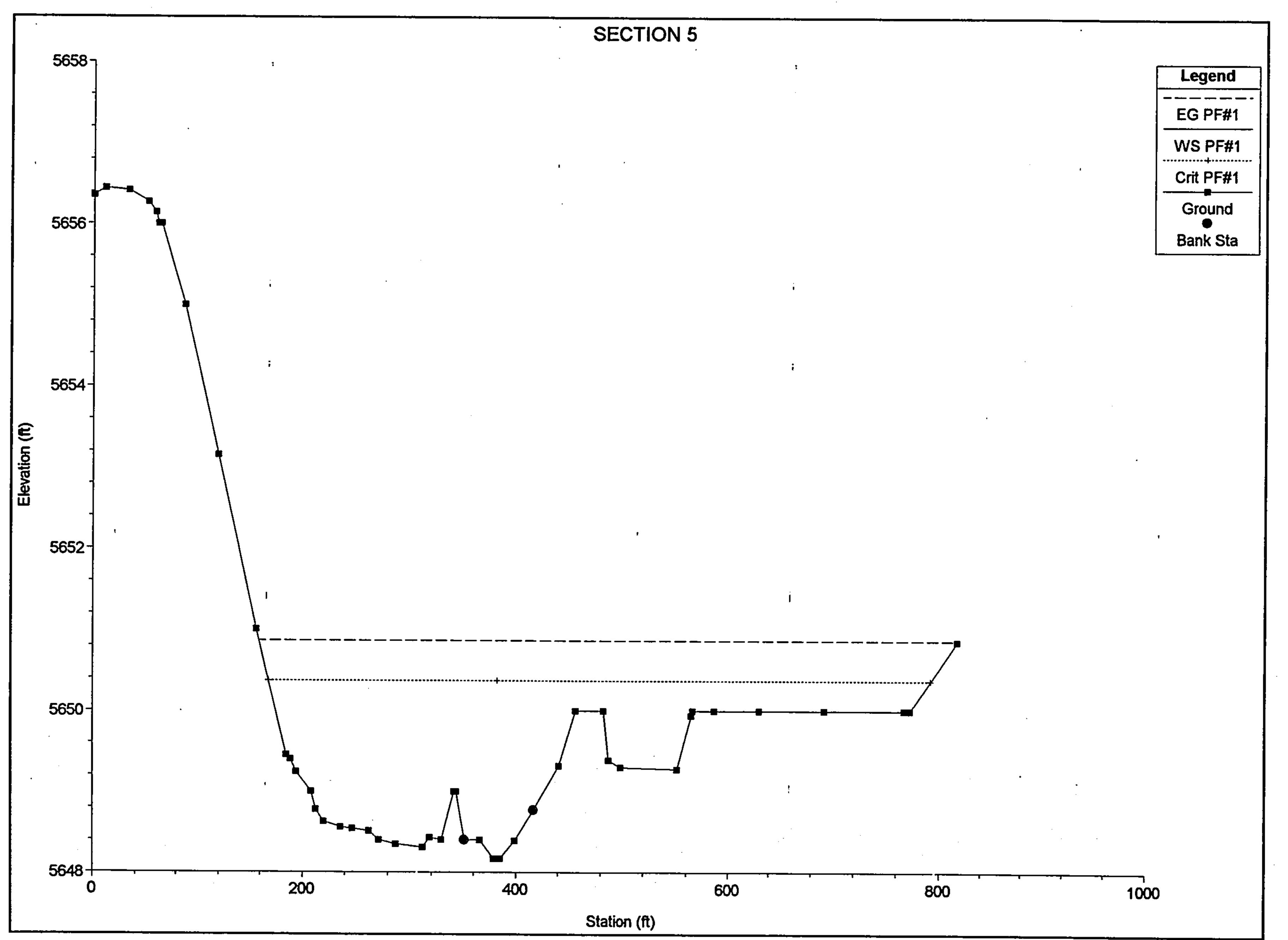
推議法

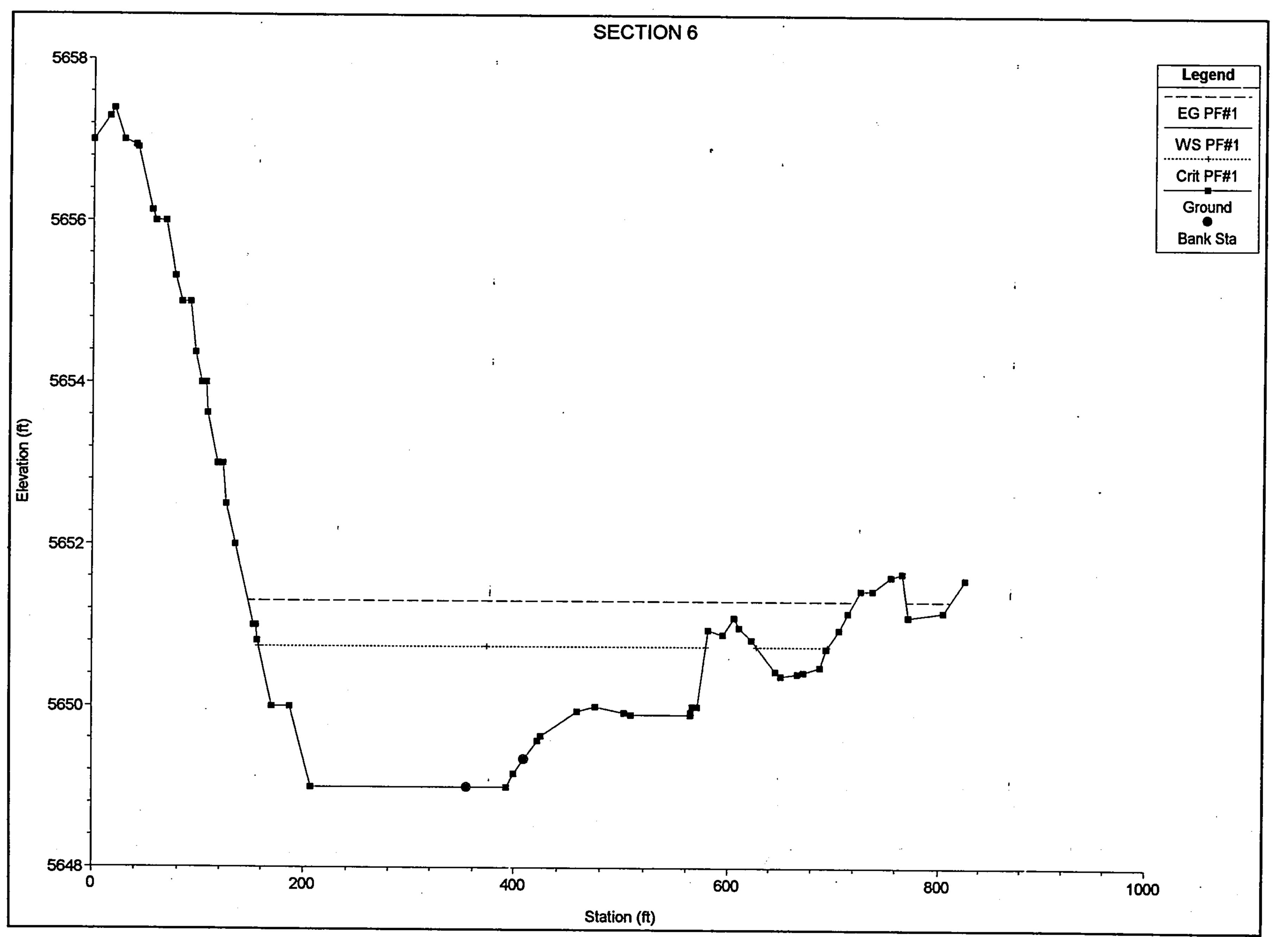


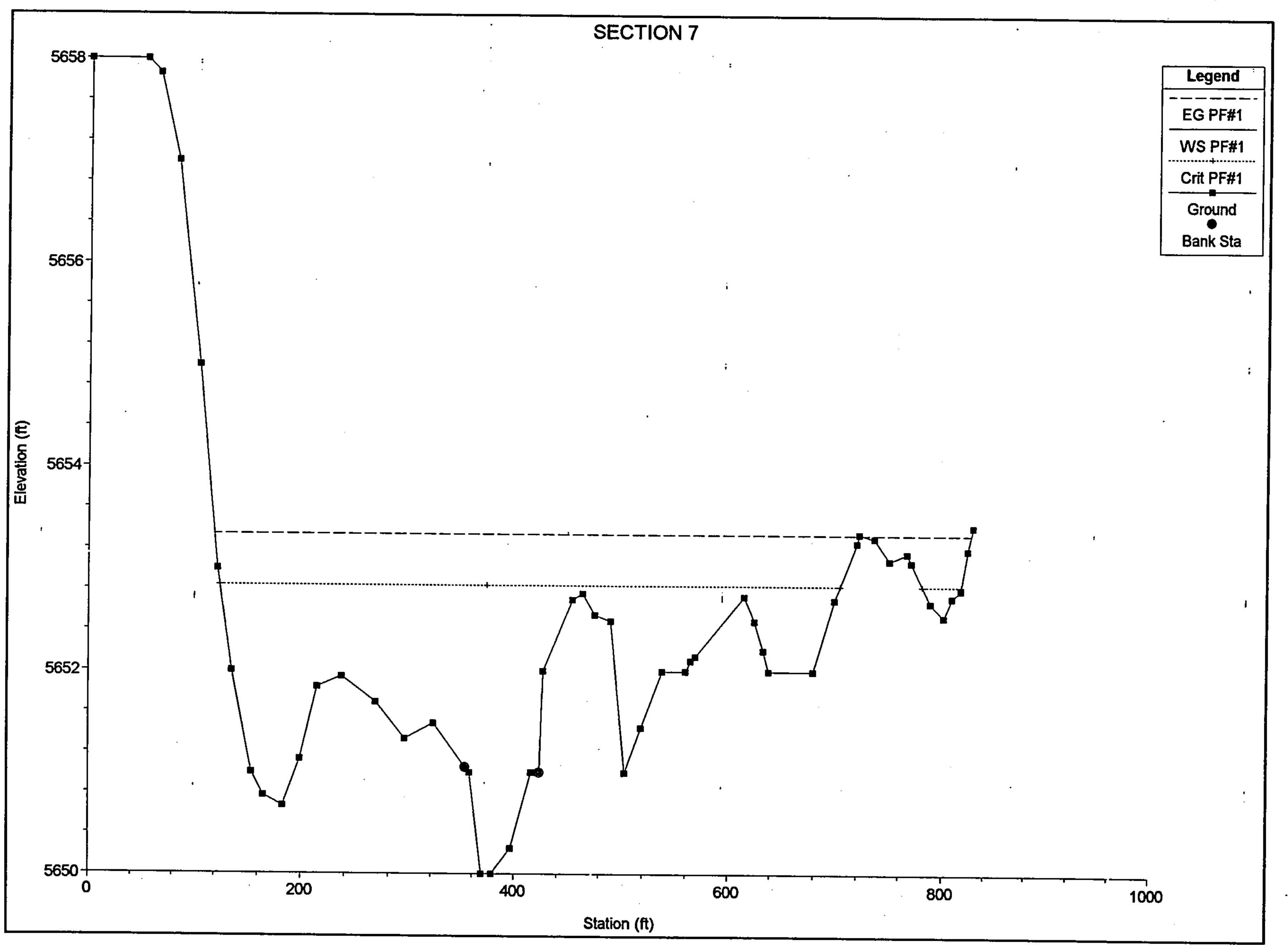


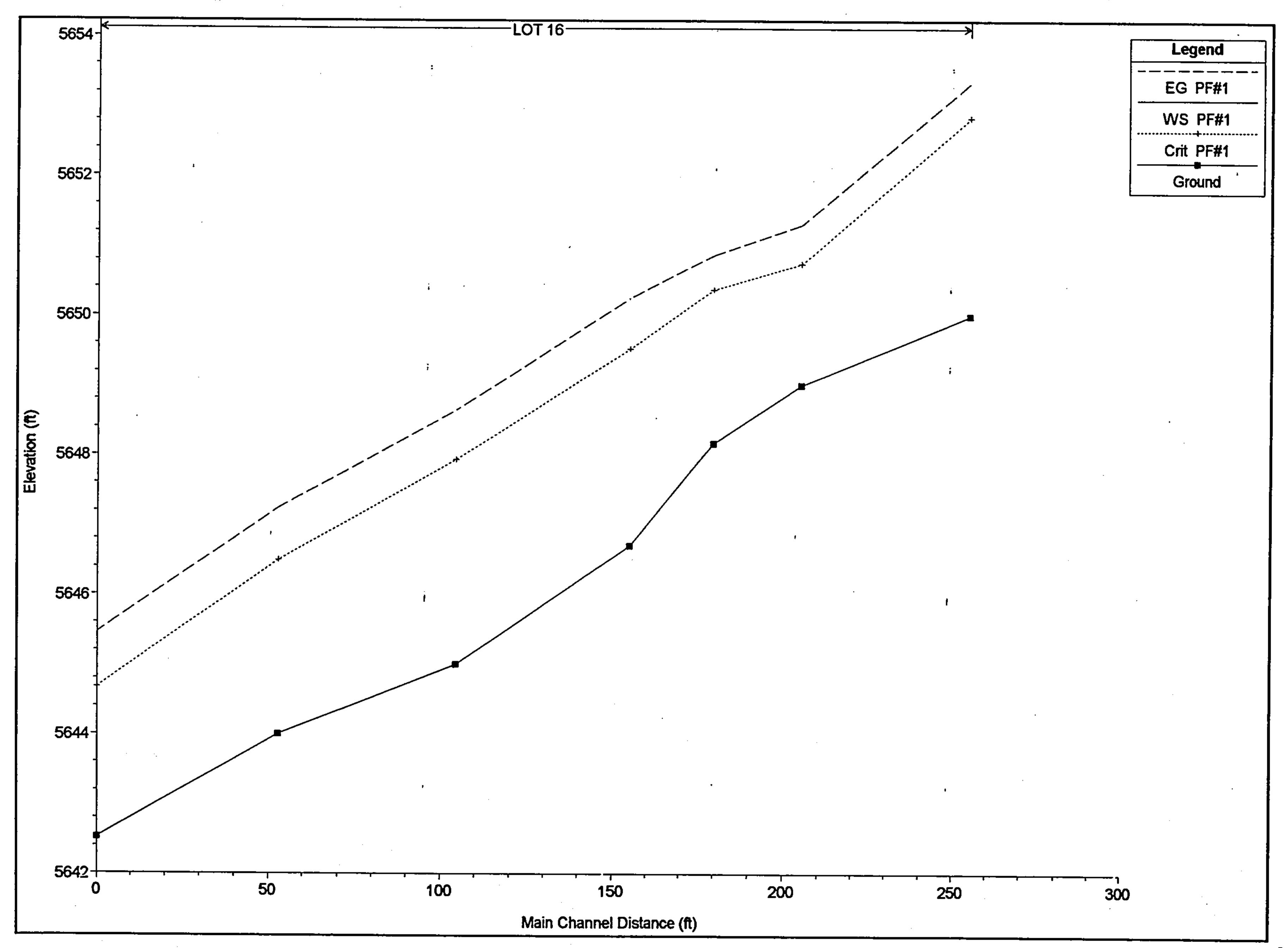


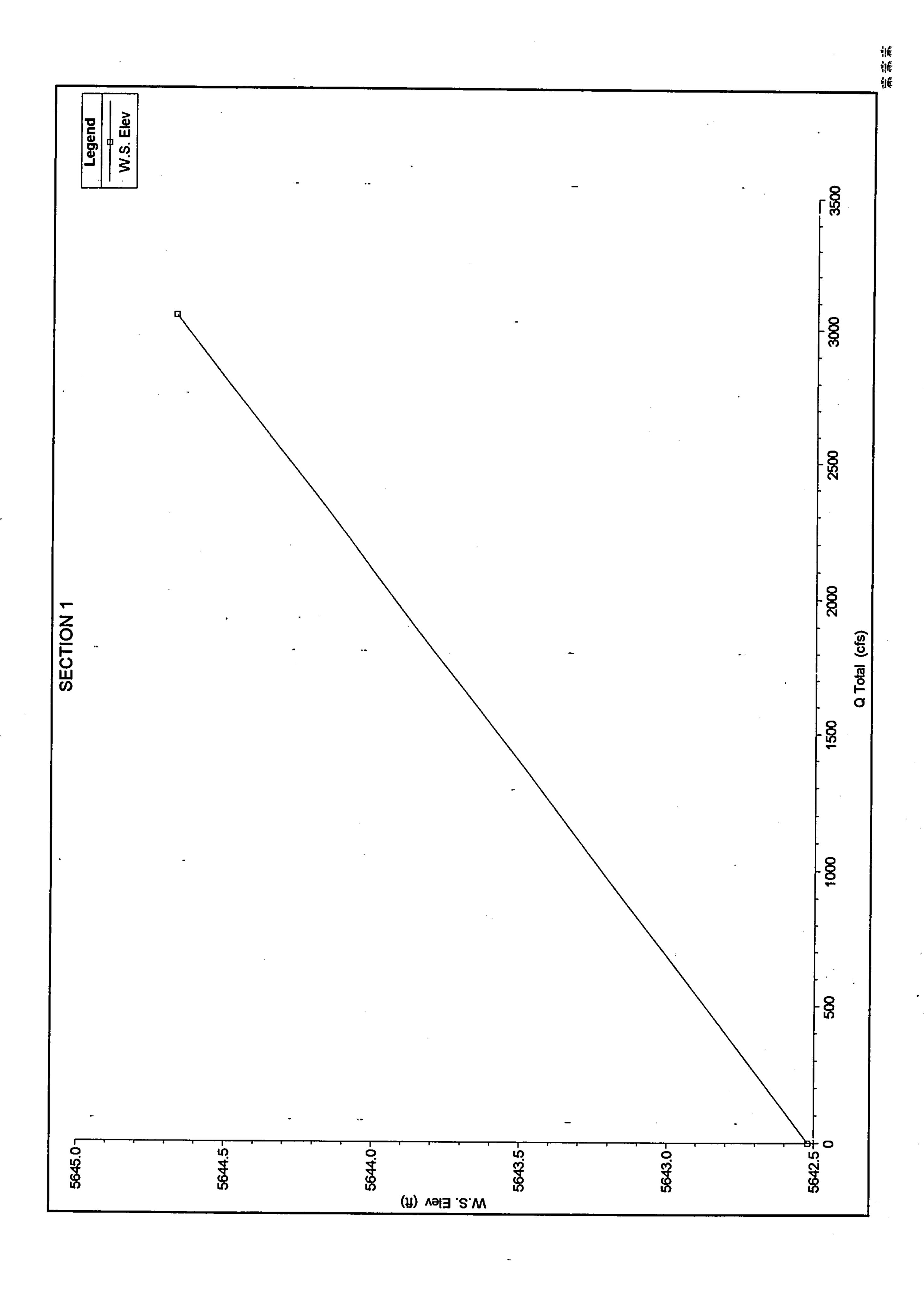


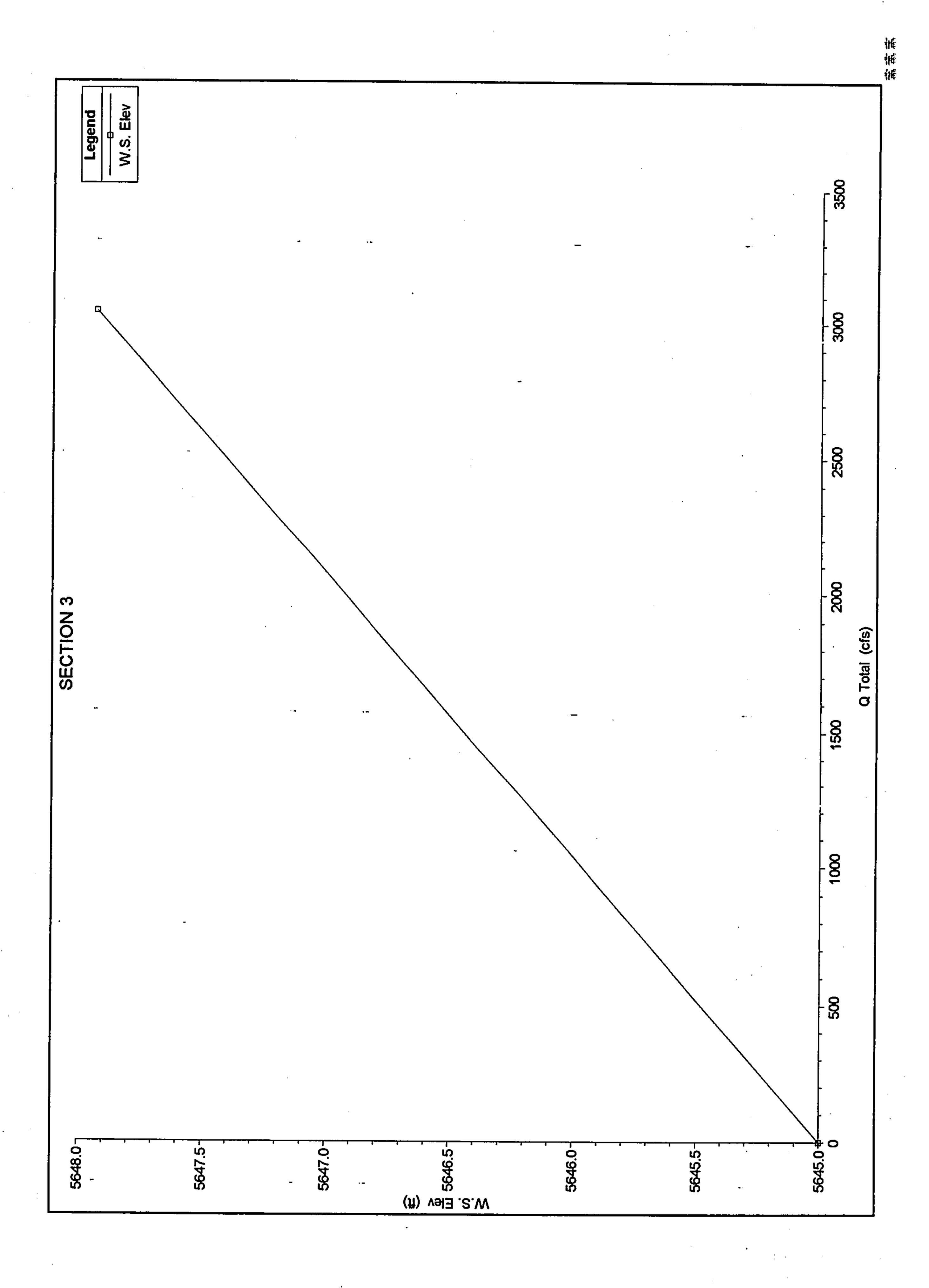


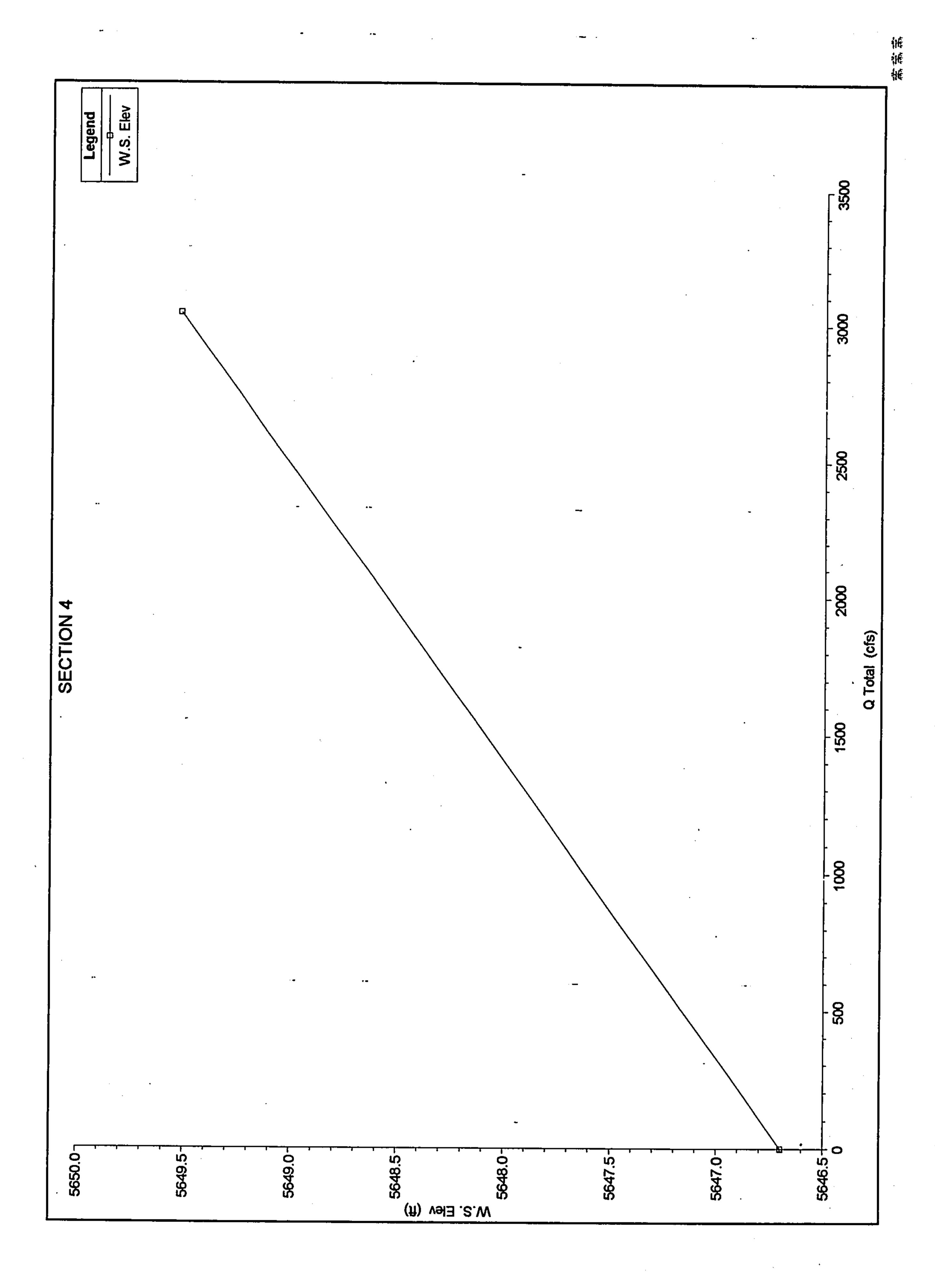


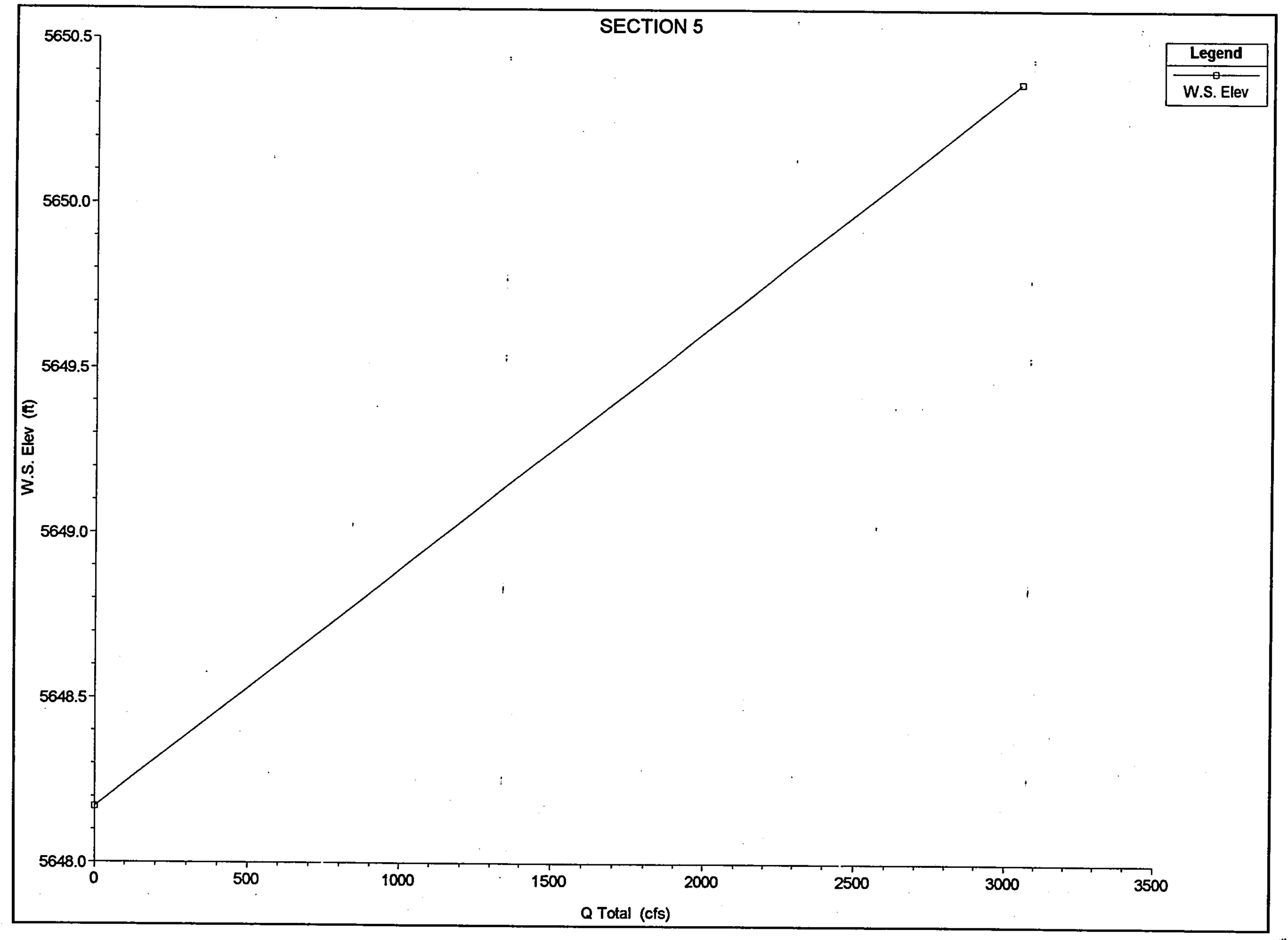


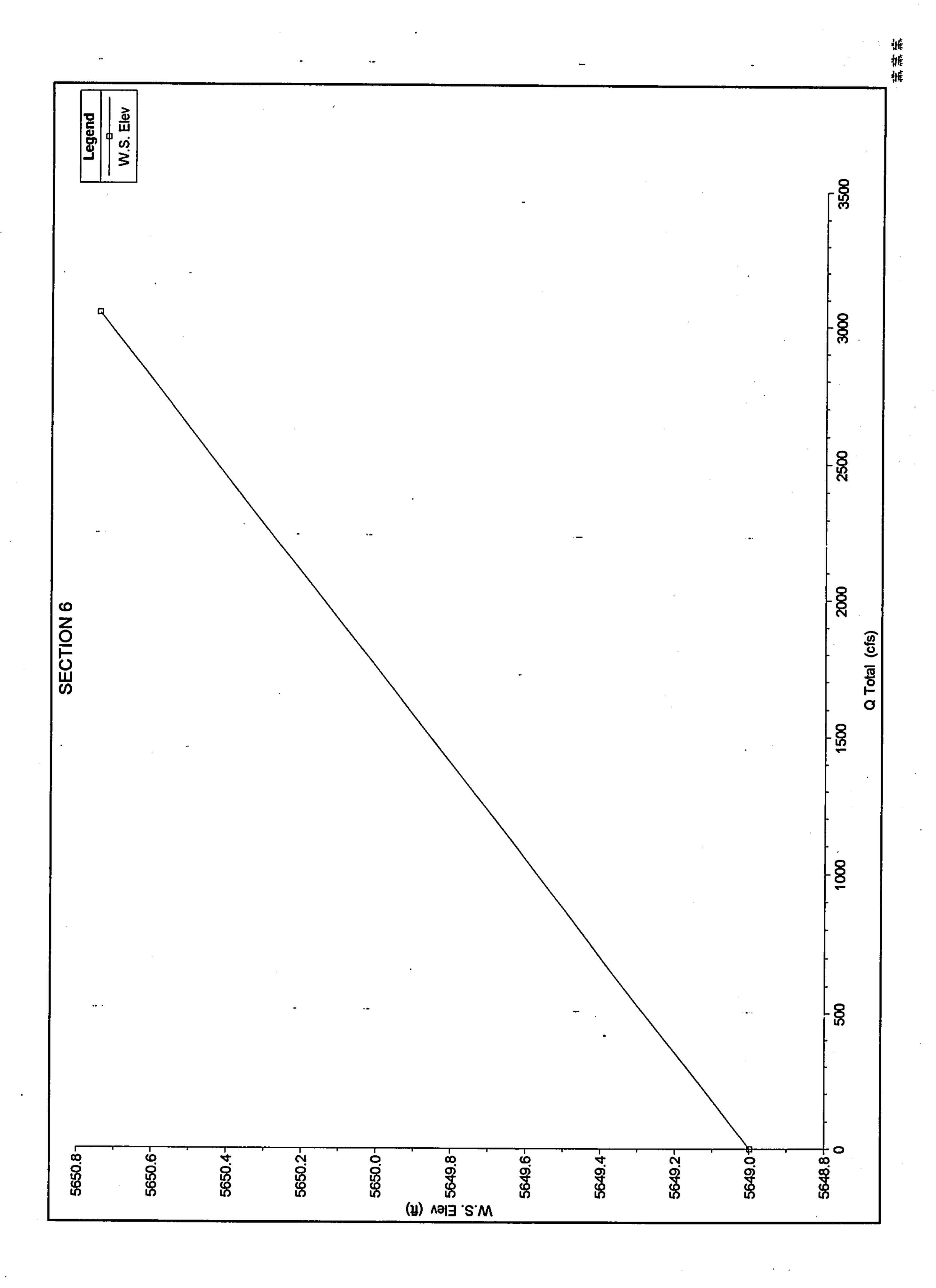


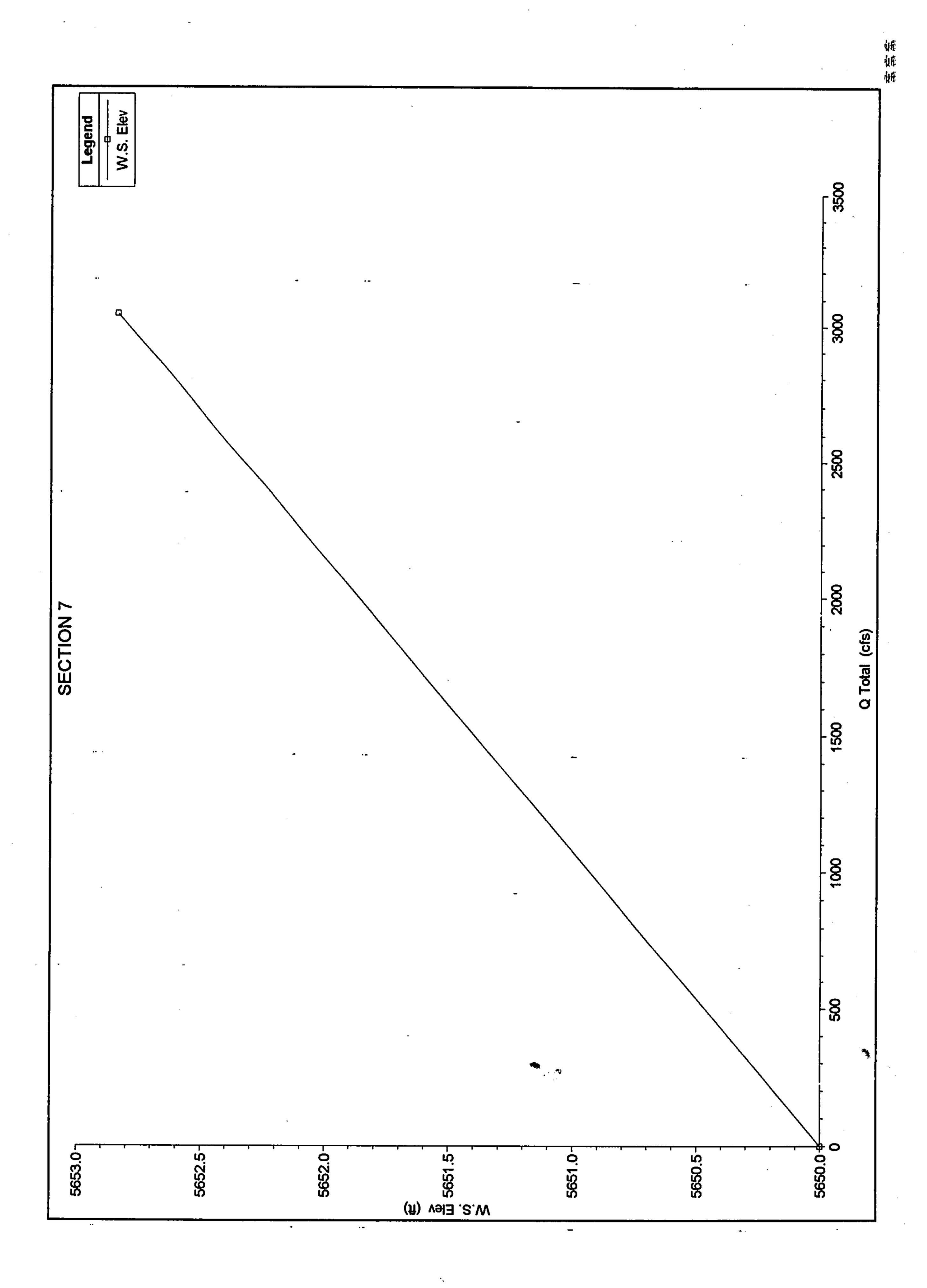












| PROJECT DATA: | |
|-------------------------------------|----------------------------------|
| TITLE: CHAVEZ RESIDENCE | DRNG. FILE #: C 20/D2 |
| DRB #: EPC #: | - WORK ORDER #: - |
| LEGAL DESCRIPTION: LOT27, BLOCK 1, | TRACT 3, UNIT 3, N. ALB. ACRES |
| CITY ADDRESS: EAGLE ROCK DR. NE | |
| ENGINEERING FIRM: BORDENAVE DESIGNS | CONTACT: J. BORDENAVE |
| ADDRESS:P.O. BOX 91194, 87199 | PHONE: 823-1344 |
| OWNER: MARTY CHAVEZ | CONTACT: K. CHAVEZ |
| ADDRESS: | PHONE: 344-6205 |
| ARCHITECT: PERFECTION DRAFTING | CONTACT: |
| ADDRESS: | PHONE: |
| SURVEYOR: E. MAXWELL DOAK | CONTACT: M. DOAK |
| ADDRESS: 637 SOLAR RD NW 87107 | PHONE: 344-4492 |
| CONTRACTOR: | CONTACT: |
| ADDRESS: | PHONE: |
| | |
| TYPE OF SUBMITTAL: | TYPE OF APPROVAL SOUGHT: |
| CONCEPT GRADING & DRAINAGE PLAN | SECTOR PLAN |
| X_ GRADING PLAN | SKETCH PLAT |
| _X DRAINAGE PLAN | PRELIMINARY PLAT |
| DRAINAGE REPORT | FINAL PLAT |
| EROSION CONTROL PLAN | SITE DEV. PLAN FOR SUBD. |
| ENGINEER'S CERTIFICATION | SITE DEV. PLAN FOR PERMIT |
| OTHER: CECEIVE | GRADING PERMIT |
| | PAVING PERMIT |
| PRE-DESIGN MEETING: JUN 1 4 1999 | FOUNDATION PERMIT |
| YES HYDROLOGY SECT | ON X BUILDING PERMIT |
| X_NO | CERTIFICATE OF OCCUPANCY |
| COPY OF MINUTES PROVIDED | S.A.D. DRAINAGE REPORT |
| | DRAINAGE REQUIREMENTS |
| | OTHER: |
| DATE SUBMITTED: 06/14/99 | |
| (.))((.) | |
| BY: Khull | |

| PROJECT DATA: | ्री इंहि चूं <u>हैं</u> |
|--------------------------------------|----------------------------------|
| TITLE: CHAVEZ RESIDENCE | DRNG. FILE #: 6'-25/020 |
| DRB #: EPC #: | - WORK ORDER #: - |
| LEGAL DESCRIPTION: LOT27, BLOCK 1, T | RACT 3, UNIT 3, N. ALB. ACRES |
| CITY ADDRESS: EAGLE ROCK DR. NE | |
| ENGINEERING FIRM: BORDENAVE DESIGNS | CONTACT: J. BORDENAVE |
| ADDRESS:P.O. BOX 91194, 87199 | PHONE: 823-1344 |
| OWNER: MARTY CHAVEZ | CONTACT: K. CHAVEZ |
| ADDRESS: | PHONE: 344-6205 |
| | |
| ARCHITECT: PERFECTION DRAFTING | CONTACT: |
| ADDRESS: | PHONE: |
| SURVEYOR: E. MAXWELL DOAK | CONTACT: M. DOAK |
| ADDRESS: 637 SOLAR RD NW 87107 | PHONE: 344-4492 |
| CONTRACTOR: | CONTACT: |
| ADDRESS: | PHONE: |
| TYPE OF SUBMITTAL: | TYPE OF APPROVAL SOUGHT: No Cont |
| CONCEPT GRADING & DRAINAGE PLAN | SECTOR PLAN |
| X GRADING PLAN | SKETCH PLAT |
| | PRELIMINARY PLAT |
| DRAINAGE REPORT | FINAL PLAT |
| EROSION CONTROL PLAN | SITE DEV. PLAN FOR SUBD. |
| ENGINEER'S CERTIFICATION | SITE DEV. PLAN FOR PERMIT |
| OTHER: | TOTAL |
| | PAVING PERMIT |
| PRE-DESIGN MEETING: FEB 1 9 1999 | FOUNDATION PERMIT |
| YES | X_BUILDING PERMIT |
| X NO HYDROLOGY SECTION | CERTIFICATE OF OCCUPANCY |
| COPY OF MINUTES PROVIDED | S.A.D. DRAINAGE REPORT |
| | DRAINAGE REQUIREMENTS |
| | OTHER: |
| DATE SUBMITTED: 02/19/99 | |



City of Albuquerque P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 18, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

RE: Revised Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D21), Submitted for Building Permit Approval, Engineer's Stamp Dated 6/14/99.

Dear Mr. Bordenave:

Based on the information provided in the submittal of June 14, 1999, the above referenced plan is approved for Building Permit release.

Since this site is located outside the erosion setback limit of the La Cueva arroyo, the Engineer's Certification for this Lot will not be required as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.

City/County Floodplain Administrator

c: Whitney Reierson, City Hydrology File



City of Albuquerque P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 1, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

RE: Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D24), Submitted for Building Permit Approval, Engineer's Stamp Dated 12/15/98.

Dear Mr. Bordenave:

Based on the information provided with the submittal of February 19, 1999, the above referenced plan is adequate for Building Permit release.

It appears that this site is located outside the erosion setback limit of the La Cueva arroyo, therefore, the Engineer's Certification for this Lot will not be required as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.

City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 1, 1999

Jake Bordenave, P.E.
Bordenave Designs
P. O. Box 91194
Albuquerque, New Mexico 87199

DE. Cardina and Danina and Diam for Cha

RE: Grading and Drainage Plan for Chavez Residence, Lot 27, Block 1, Tract 3, Unit 3, NAA (C20/D24), Submitted for Building Permit Approval, Engineer's Stamp Dated 12/15/98.

Dear Mr. Bordenave:

Based on the information provided with the submittal of February 19, 1999, the above referenced plan is adequate for Building Permit release.

It appears that this site is located outside the erosion setback limit of the La Cueva arroyo, therefore, the Engineer's Certification for this Lot will not be required as long as construction is done in compliance with this approved plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.

City/County Floodplain Administrator

c: Andrew Garcia, City Hydrology

File