FLOODPLAIN AND FLOODWAY DELINEATION

FOR SONORAN WASH

PREPARED FOR:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Contract FCD 99-23

PREPARED BY:

TETRA TECH, INC
4801 East Washington Street, Suite 260
Phoenix, Arizona 85034
(602) 682-3300

TETRA TECH, INC. Project No. 2350.0002.01

AND

STANTEC CONSULTING, INC.
8211 South 48th Street
Phoenix, Arizona 85044
(602) 438-2200

STANTEC CONSULTING, INC. Project No. 82000141

August 2001

FLOODPLAIN AND FLOODWAY DELINEATION

FOR SONORAN WASH

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Flood Control District of MC Library
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2801 W. Durango
Phoenix, AZ 85009

PREPARED FOR:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Contract FCD 99-23

LOMR
EFF. SEP 23, 2004

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B	HEC-1 Model Output File 100-year, 24-hour
C	Diskette with HEC-1 Input Files
D	HEC-1 Model Indirect Method Verification Worksheets
E	HEC-RAS Model HEC-RAS Output Files HEC-RAS Cross-Section Plots
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G	Mannings "n"-Value Calculations and Photographs Mannings' "n"-Value Calculation Sheets Photograph Locations and Descriptions Selected Field Photographs Mannings "n"-Value Reach Limits and Photograph Locations
H	FLO-2D Computer Files
I	Public Notice
J	Correspondence
K	Annotated FIRM Panel
L	Survey Data

1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

The following report is a comprehensive document that contains the results and supporting computations for the hydrology and hydraulics performed to determine 100-year floodplain and floodway limits for Sonoran Wash. Our sincere appreciation is extended to the following agencies for their help and perspective while studying this watershed:

- Flood Control District of Maricopa County
- City of Phoenix
- U.S. Natural Resource Conservation Service

The primary focus of this report is to document the hydrologic and hydraulic data, assumptions, procedures and criteria used in conducting the Floodplain delineation for Sonoran Wash. This report is generally structured in a Technical Data Notebook format in accordance with Arizona Department of Water Resources requirements of State Standard SS1-97 and State Standard SSA1-97.

The project is located within the City of Phoenix, Maricopa County, Arizona. Sonoran Wash lies within Section 19, Township 5 North, Range 3 East and Sections 24, 25 and 26 of Township 5 North and Range 2 East. The study area in relationship to the City of Phoenix and Maricopa County corporate limits is shown on the Location Map, Figure 1-1. The hydrology portion of this study is executed using the methodology contained in the Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology, (Maricopa County Hydrology Manual), 1995, Flood Control District of Maricopa County. Hydrologic modeling is accomplished using the US Army Corps of Engineers (COE) HEC-1 computer program, version 4.1. Detailed floodplain and floodway delineation is performed for approximately 4 miles along Sonoran Wash using the COE HEC-RAS computer program, version 2.2 and a two dimensional hydraulic model, Tetra Tech, Inc.'s FLO-2D, version 2000.01.

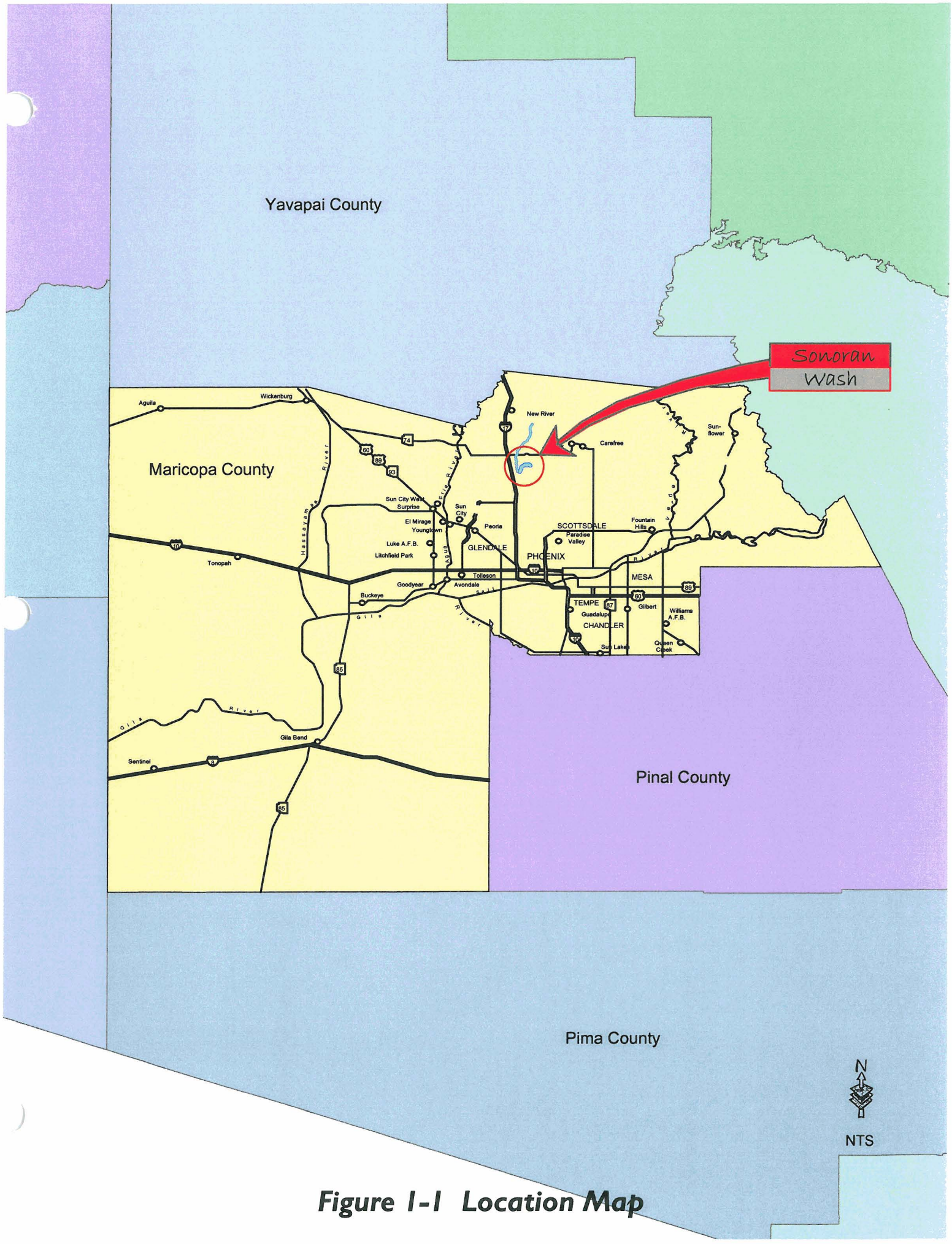

Figure 1-1 Location Map

1.2 STUDY DOCUMENTATION ABSTRACT

This section, the Study Documentation Abstract, lists pertinent information concerning authority for study, Contractor, Reviewer and Key elements of the hydrologic and hydraulic analyses. The abstract is listed in a table format.

STUDY DOCUMENTATION ABSTRACT

GENERAL INFORMATION

1A	COMMUNITY	City of Phoenix
1B	COMMUNITY NUMBER	040051
1C	COUNTY	Maricopa
1D	STATE	Arizona
1E	DATE STUDY ACCEPTED	
1F	STUDY CONTRACTOR	Tetra Tech, Inc..
	CONTACTS	Thomas R. Loomis, PE, RLS
	ADDRESS	Tetra Tech, Inc. 4801 E. Washington Street, Suite 260 Phoenix, Arizona 85034
	PHONE	(602) 682-3300 (602) 244-1164 (FAX)
	SUBCONSULTANTS	Stantec Consulting Inc. (HEC-RAS Hydraulics) Aerial Mapping Co. (Aerial Mapping)
1G	TECH. REVIEWER (FEMA, contractor)	
	PHONE	
1H	FEMA REGIONAL REVIEWER	
	PHONE	
1I	STATE REVIEWER	N/A
	PHONE	
1J	LOCAL REVIEWER	Flood Control District of Maricopa County Kofi Awumah, Ph.D., P.E.
	PHONE	(602) 506-1501
1K	RIVER OR STREAM NAME	Sonoran Wash
1L	REACH DESCRIPTION	Riverine
1M	STUDY TYPE	Floodplain/Floodway Delineation

STUDY DOCUMENTATION ABSTRACT (continued)

MAPPING INFORMATION

2A	MAPPING FOR HYDROLOGIC STUDY TYPE/SOURCE	Quad Names, Scale, Date
		New River SE, Arizona 7.5 minute 1981
		Union Hills, Arizona 7.5 minute 1981
2C	MAPPING FOR HYDRAULIC STUDY TYPE/SOURCE	2-foot contour interval mapping in digital format
	SCALE	1 inch = 200 feet
	DATE	July 20, 1999

HYDROLOGY

3A	MODEL OR METHOD USED (Including vendor and version description)	HEC-1 version 4.0.1E, September 1990 Dodson & Associates
3B	STORM DURATION	6-hour and 24-hour
3C	HYETOGRAPH TYPE	In accordance with Design Manual
3D	FREQUENCIES DETERMINED	100-year
3E	LIST OF GAGES USED IN FREQUENCY ANALYSIS OR CALIBRATION (Location, Years of Record, Gage Ownership)	None used

STUDY DOCUMENTATION ABSTRACT (continued)

HYDROLOGY (continued)

3F	RAINFALL AMOUNTS AND REFERENCE	100-year, 6-hour = 3.34 inches 100-year, 24-hour = 4.20 inches NOAA Atlas II
3G	UNIQUE CONDITIONS AND PROBLEMS	None
3H	COORDINATION OF Q'S (Agency, date, comments)	None

HYDRAULICS

4A	MODEL OR METHOD USED (including vendor and version description)	HEC-RAS, version 2.2 FLO-2D, version 2000.01
4B	REGIME	Subcritical
4C	FREQUENCIES FOR WHICH PROFILES WERE COMPUTED	100-year
4D	METHOD OF FLOODWAY CALCULATION	Method 1
4E	UNIQUE CONDITIONS AND PROBLEMS	None

1.3 PUBLIC NOTICE

Advertisements were placed in the Arizona Republic, the Foothills Sentinel and the Desert Advocate to notify the public of the study. Copies of the advertisements are located in Appendix I.

1.4 CORRESPONDENCE

Correspondence that transpired during the course of this study that relates to the analyses documented in this report is provided in Appendix J.

The correspondence includes notices to proceed, data requests, notices of approval and other general correspondence.

2.0 FEMA FORMS

This section of the report provides completed standard FEMA Forms.

FEDERAL EMERGENCY MANAGEMENT AGENCY **REVISION REQUESTER AND COMMUNITY OFFICIAL FORM**	O.M.B No. 3067-0148 Expires April 30, 2001

Public reporting burden for this form is estimated to average 2.13 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

1. REQUESTED RESPONSE FROM FEMA

This request is for a:

☐ CLOMR A letter from FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision, or proposed hydrology changes (See 44 CFR Ch. 1, Parts 60,65 & 72).

☒ LOMR A letter from FEMA officially revising the current NFIP map to show the changes to floodplains, floodway or flood elevations. LOMRs typically decrease flood hazards. (See 44 CFR Ch. 1 Parts 60 & 65.)

☒ Other Describe: New Floodplain Delineations

2. OVERVIEW

1. The basis for this revision request is (are): (check all that apply)

☐ Physical Change ☐ Improved Methodology/Data ☐ Floodway Revision

☒ Other Describe: New Study

Note: A photograph is not required, but is very helpful during review.

2. Flooding Source: Sonoran Wash

3. Project Name/Identifier: Skunk Creek Watercourse Master Plan, Flood Control District of Maricopa County Contract # 99-23

4. FEMA zone designations affected: AE
(example: A, AH, AO, A1-A30, A99, AE, V, V1-V30, VE, B, C, D, X)

5. The NFIP map panel(s) affected for all impacted communities is (are):

Community No.	Community Name	State	Map No.	Panel No.	Effective Date
Ex: 480301 480287	Katy, City Harris County	TX TX	480301 48201C	0005D 0220G	02/08/83 09/28/90
040051	City of Phoenix	AZ	040113C 040113C	790 D 1205 E	04/15/88 12/3/93

6. The area of revision encompasses the following types of flooding and structures. Check all that apply.

Types of Flooding	Structures
☒ Riverine	☐ Channelization
☐ Coastal	☐ Levee/Floodwall
☐ Alluvial fan	☐ Bridge/Culvert
☐ Shallow Flooding (e.g. Zones AO and AH)	☐ Dam
☐ Lakes	☐ Fill
☐ Other (describe)	☐ Other (describe)

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

4. ENCROACHMENT INFORMATION

1. Does the State have jurisdiction over the floodway or its adoption by communities participating in the NFIP?
☐ Yes ☒ No

If Yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

2. Does the development in the floodway cause the 1% annual chance (base) elevation to increase at any location by more than 0.000 feet? ☐ Yes ☐ No ☒ N/A

3. Does the cumulative effect of all development that has occurred since the effective SFHA was originally identified cause the base flood elevation to increase at any location by more than one foot (or other increase limit if community or state has adopted more stringent criteria - even if a floodway has not been delineated by FEMA)? ☐ Yes ☒ No

If the answer to either items is Yes, please attach documentation that all requirements of Section 65.12 of the NFIP regulations have been met, regarding evaluation of alternatives, notice to individual legal property owners, concurrence of CEO, and certification that no insurable structures are impacted.

5. MAINTENANCE RESPONSIBILITY

The community is willing to assume responsibility for ☐ performing ☐ overseeing compliance with the maintenance and operation plans of the _____
(Name)
flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Operation and maintenance plans are attached. ☐ **Yes** ☐ **No** ☒ **N/A**

6. REVIEW FEE

The review fee for the appropriate request category has been included. ☐ Yes Fee amount: $_____

OR

This request is based on a federally sponsored flood-control project where 50 percent or more of the project's cost is federally sponsored, or the request is based on detailed hydrologic and hydraulic studies conducted by Federal, State, or local agencies to replace approximate studies conducted by FEMA and shown on the effective FIRM; thus the project is fee exempt. ☒ Yes

Please see Instructions for Fee Amounts

7. SIGNATURE

Note: **I understand that my signature indicates that all information submitted in support of this request is correct**

Tim Murphy
Signature of Revision Requester

Tim Murphy, P.E., CFM Delineation Manager
Printed Name and Title of Revision Requester

Flood Control District of Maricopa County
Company Name

602-506-4605 Date: 5-06-03
Telephone No.: Date:

Note: **Signature indicates that the community understands, from the revision requester, the impacts of the revision on flooding conditions in the community.**

Hasan Mushtaq
Signature of Community Official

HASAN MUSHTAQ, Ph.D., P.E., C.F.M.
Floodplain Manager
Printed Name and Title of Community Official

City of Phoenix
Community Name

Telephone No.: (602) 262-4960 Date: 9/30/02

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is in accordance with 44 CFR Ch. 1, Sect 65.2

Jeffrey A. Despain
Signature

Jeffrey A. Despain, Project Engineer (Hydrology & FLO-2D Hydraulics)
Printed Name and Title of Revision Requester

Registr No. 32833 Expires (Date) 9/30/01 State AZ

Type of License/Expertise: Engineer/Civil

Check which forms have been included with this request

Form Name and (Number)	Required if .....
☒ **Hydrologic** (3)	new or revised discharges
☒ **Hydraulic** (4)	new or revised water-surface elevations
☒ **Mapping** (5)	floodplain/floodway changes
☐ **Channelization** (6)	channel is modified
☐ **Bridge/Culvert** (7)	addition/revision of bridge/culvert
☐ **Levee/Floodwall** (8)	addition/revision of levee/floodwall
☐ **Coastal** (9)	new or revised coastal elevations
☐ **Coastal Structures** (10)	addition/revision of coastal structure
☐ **Dam** (11)	addition/revision of dam
☐ **Alluvial Fan** (12)	structures proposed on alluvial fan

4. ENCROACHMENT INFORMATION

1. Does the State have jurisdiction over the floodway or its adoption by communities participating in the NFIP?
☐ Yes ☒ No

If Yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

2. Does the development in the floodway cause the 1% annual chance (base) elevation to increase at any location by more than 0.000 feet? ☐ Yes ☐ No ☒ N/A

3. Does the cumulative effect of all development that has occurred since the effective SFHA was originally identified cause the base flood elevation to increase at any location by more than one foot (or other increase limit if community or state has adopted more stringent criteria - even if a floodway has not been delineated by FEMA)? ☐ Yes ☒ No

If the answer to either items is Yes, please attach documentation that all requirements of Section 65.12 of the NFIP regulations have been met, regarding evaluation of alternatives, notice to individual legal property owners, concurrence of CEO, and certification that no insurable structures are impacted.

5. MAINTENANCE RESPONSIBILITY

The community is willing to assume responsibility for ☐ performing ☐ overseeing compliance with the maintenance and operation plans of the _____
(Name)
flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Operation and maintenance plans are attached. ☐ **Yes** ☐ **No** ☒ **N/A**

6. REVIEW FEE

The review fee for the appropriate request category has been included. ☐ Yes Fee amount: $_____

OR

This request is based on a federally sponsored flood-control project where 50 percent or more of the project's cost is federally sponsored, or the request is based on detailed hydrologic and hydraulic studies conducted by Federal, State, or local agencies to replace approximate studies conducted by FEMA and shown on the effective FIRM; thus the project is fee exempt. ☒ Yes

Please see Instructions for Fee Amounts

7. SIGNATURE

Note: **I understand that my signature indicates that all information submitted in support of this request is correct**

_____
Signature of Revision Requester

_____
Printed Name and Title of Revision Requester

_____
Company Name

Telephone No.: _____ Date: _____

Note: **Signature indicates that the community understands, from the revision requester, the impacts of the revision on flooding conditions in the community.**

_____
Signature of Community Official

_____
Printed Name and Title of Community Official

City of Phoenix
Community Name

Telephone No.: (602) 262-4960 Date: _____

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is in accordance with 44 CFR Ch. 1, Sect 65.2

Patrick J. Ellison
Signature

Patrick J. Ellison, Water Resources Engineer (HEC-RAS Hydraulics)
Printed Name and Title of Revision Requester

Registr No. 31680 Expires (Date) Sept. 2003 State Arizona

Type of License/Expertise: Engineer/Civil

Check which forms have been included with this request

Form Name and (Number)	Required if .....
☒ **Hydrologic** (3)	new or revised discharges
☒ **Hydraulic** (4)	new or revised water-surface elevations
☒ **Mapping** (5)	floodplain/floodway changes
☐ **Channelization** (6)	channel is modified
☐ **Bridge/Culvert** (7)	addition/revision of bridge/culvert
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☐ **Dam** (11)	addition/revision of dam
☐ **Alluvial Fan** (12)	structures proposed on alluvial fan

4. ENCROACHMENT INFORMATION

1. Does the State have jurisdiction over the floodway or its adoption by communities participating in the NFIP?
☐ Yes ☒ No

If Yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

2. Does the development in the floodway cause the 1% annual chance (base) elevation to increase at any location by more than 0.000 feet? ☐ Yes ☐ No ☒ N/A

3. Does the cumulative effect of all development that has occurred since the effective SFHA was originally identified cause the base flood elevation to increase at any location by more than one foot (or other increase limit if community or state has adopted more stringent criteria - even if a floodway has not been delineated by FEMA)? ☐ Yes ☒ No

If the answer to either items is Yes, please attach documentation that all requirements of Section 65.12 of the NFIP regulations have been met, regarding evaluation of alternatives, notice to individual legal property owners, concurrence of CEO, and certification that no insurable structures are impacted.

5. MAINTENANCE RESPONSIBILITY

The community is willing to assume responsibility for ☐ performing ☐ overseeing compliance with the maintenance and operation plans of the _____
(Name)
flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Operation and maintenance plans are attached. ☐ **Yes** ☐ **No** ☒ **N/A**

6. REVIEW FEE

The review fee for the appropriate request category has been included. ☐ Yes Fee amount: $_____

OR

This request is based on a federally sponsored flood-control project where 50 percent or more of the project's cost is federally sponsored, or the request is based on detailed hydrologic and hydraulic studies conducted by Federal, State, or local agencies to replace approximate studies conducted by FEMA and shown on the effective FIRM; thus the project is fee exempt. ☒ Yes

Please see Instructions for Fee Amounts

7. SIGNATURE

Note: **I understand that my signature indicates that all information submitted in support of this request is correct**

_____
Signature of Revision Requester

_____
Printed Name and Title of Revision Requester

_____
Company Name

Telephone No.: _____ Date: _____

Note: **Signature indicates that the community understands, from the revision requester, the impacts of the revision on flooding conditions in the community.**

_____
Signature of Community Official

_____
Printed Name and Title of Community Official

City of Phoenix
Community Name

Telephone No.: (602) 262-4960 Date: _____

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

This certification is in accordance with 44 CFR Ch. 1, Sect 65.2

Signature

Marcie Wayne Burcham (Survey)
Printed Name and Title of Revision Requester

Registr No. 17129 Expires (Date) 3/31/02 State AZ

Type of License/Expertise: Land Surveyor

Check which forms have been included with this request

Form Name and (Number)	Required if .....
☒ **Hydrologic** (3)	new or revised discharges
☒ **Hydraulic** (4)	new or revised water-surface elevations
☒ **Mapping** (5)	floodplain/floodway changes
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☐ **Dam** (11)	addition/revision of dam
☐ **Alluvial Fan** (12)	structures proposed on alluvial fan

FEDERAL EMERGENCY MANAGEMENT AGENCY **HYDROLOGIC ANALYSIS FORM**	O.M.B No. 3067-0148 Expires April 30, 2001

ublic reporting burden for this form is estimated to average **3.67** hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: City of Phoenix

Flooding Source: Sonoran Wash

Project Name/Identifier: Skunk Creek Watercourse Master Plan, FCDMD Contract No. 99-23

1. REASON FOR NEW HYDROLOGIC ANALYSIS

☒ No existing analysis ☒ Improved data ☐ Changed physical condition of watershed

☒ Alternative methodology ☐ Proposed Conditions (CLOMR) ☐ Other

For the reason stated above, please attach a detailed explanation. If a computer program/model was used in revising the hydrologic analysis, **please provide a diskette with the input files** for the same flood recurrence intervals contained in the FIS for that stream; and at least for the 1% annual chance (base) flood where no detailed study exists.

Explanation provided: ☐ Yes ☐ No **Diskettes provided:** ☒ Yes ☐ No

2. METHODOLOGY FOR NEW ANALYSIS

Indicate Method	Required Data	Data Included
☐ Statistical Analysis of Gage Records	Form 3 - Attachment A	☐ Yes ☐ No
☐ Regional Regression Equations	Form 3 - Attachment C	☐ Yes ☐ No
☒ Precipitation/Runoff Model	Form 3 - Attachment D	☒ Yes ☐ No
☐ Other	Back-up computations and supporting data	☐ Yes ☐ No

3. APPROVAL OF ANALYSIS

The hydrologic analysis has already been approved by a local, state, or Federal Agency. ☒ Yes ☐ No ☐ Not Required

If Yes, attach evidence of approval. ☒ **Approval attached.** If No, attach explanation. ☐ **Explanation attached.**

4. COMPARISON OF BASE FLOOD DISCHARGES

Location:	Drainage Area (SqMi)	FIS(cfs)	Revised (cfs)
- - - - -	- - - - -	- - - - -	- - - - -
- - - -	- - - - -	- - - - -	- - - - -
- - - - -	- - - - -	- - - - -	- - - - -

Note: When revised discharges are not significantly different than the FIS discharges, FEMA may require a confidence limits analysis (see attachment B) at a later date to complete the review.

If only a portion of a detailed study area was revised please attach an explanation describing the transition from the proposed discharges to the effective discharges. ☐ **Explanation Included** ☐ **Explanation Not Required**

5. HISTORICAL FLOODING INFORMATION

If historical data are available for the flooding source please provide: Location, peak discharges/water-surface elevations and dates, and source of information. ☐ **Data Attached** ☒ **Data Not Available**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

ATTACHMENT A: STATISTICAL ANALYSIS OF GAGE RECORDS

Gaging Station: N/A

Gage Location (latitude and longitude): - - - - -

		FIS:		Revised:	
1.	Number of years of data	- - - - -		- - - - -	
	Systematic	- - - - -		- - - - -	
	Historical	- - - - -		- - - - -	
2.	Homogeneous data	☐ Yes	☐ No	☐ Yes	☐ No
3.	Data adjustments	☐ Yes	☐ No	☐ Yes	☐ No
4.	Number of high outliers	- - - - -		- - - - -	
	Low outliers	- - - - -		- - - - -	
	Zero events	- - - - -		- - - - -	
5.	Generalized skew	- - - - -		- - - - -	
6.	Station skew	- - - - -		- - - - -	
7.	Adopted skew	- - - - -		- - - - -	
8.	Probability distribution used (justify if log-Pearson III was not used)	- - - - -		- - - - -	
9.	Transfer equations to ungaged sites			☐ Yes	☐ No
	If Yes, specify method				

- - - - -

10.	Expected probability*	☐ Yes	☐ No
11.	Comparison of results with other analyses	☐ Yes	☐ No
	If Yes, describe comparison		

- - - - -

12. **Attach analysis including plot of flood-frequency curve. Analysis Attached?** ☐ Yes ☐ No

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data are not available, indicate by N/A.

ATTACHMENT B: CONFIDENCE LIMITS EVALUATION

Stream: N/A

Select one location for Confidence Limits Evaluation (*describe location*): _____

1. Discharges for selected location:

Exceedence Probability		FIS:	Revised:
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

2. 1% Annual Chance (Base) Flood Confidence Intervals

90% Confidence Interval:	5% limit	_____ cfs
	95% limit	_____ cfs
50% Confidence Interval:	25% limit	_____ cfs
	75% limit	_____ cfs

3. If the discharge of the base flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the base flood elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

4. **Confidence Limits Analysis Attached?** ☐ Yes ☐ No

ATTACHMENT C: REGIONAL REGRESSION EQUATIONS

1. Bibliographical Reference:

   N/A

   - - - - -

   - - - - -

   (Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: - - - - -

3. Hydrologic region(s): - - - - -
   Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

   - - - - -

   - - - - -

   - - - - -

		FIS:		Revised:	
5.	Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6.	Percent of watershed urbanization	- - - - -		- - - - -	
7.	Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
8.	Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is Yes, explain methdology below. If data are not available, indicate with N/A.

Comments

- - - - -

9. **Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.**

   Computation and Supporting Maps provided? ☐ Yes ☐ No

ATTACHMENT D: PRECIPITATION/RUNOFF MODEL

		FIS:		Revised:	
1.	Method or model used:	N/A		HEC-1	
	Version:	-----		4.0.1E	
	Date:	-----		September 1990	
2.	Source of rainfall depth:	-----		NOAA Atlas 2, Arizona	
3.	Source of rainfall distribution:	-----		SCS Type II	
4.	Rainfall duration:	-----		24-hour	
5.	Areal adjustment to precipitation (%):	-----		varies per FCDMD manual	
6.	Maximum overland flow length	-----		10,763 ft	
7.	Hydrograph development method:	-----		S-graph	
8.	Loss rate method:	-----		Green & Ampt	
	Source of soils information:	-----		SCS Aguila-Carefree Survey	
	Source of land use information:	-----		Aerial photography	
9.	Channel routing method:	-----		Modified Puls	
10.	Reservoir routing:	☐ Yes	☐ No	☐ Yes	☒ No
11.	Baseflow considerations: **If Yes, explain below how baseflow was determined:** -----	☐ Yes	☐ No	☐ Yes	☒ No
12.	Snowmelt considerations:	☐ Yes	☐ No	☐ Yes	☒ No
13.	Model calibration: **If Yes, explain below how calibration was performed** -----	☐ Yes	☐ No	☐ Yes	☒ No
14.	Future land use condition: **If Yes, explain why below** -----	☐ Yes	☐ No	☐ Yes	☒ No

15. **Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.**

Information and Maps provided? ☒ Yes ☐ No

NOTE: FEMA policy is to base flooding on existing conditions.

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE HYDRAULIC ANALYSIS FORM**	O.M.B No. 3067-0148 Expires April 30, 2001

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: City of Phoenix

Flooding Source: Sonoran Wash

Project Name/Identifier: Skunk Creek Watercourse Master Plan, Flood Control District of Maricopa County Contract No. 99-23

1. REACH TO BE REVISED

Describe the limits of the revision OR submit a copy of the FIRM with the revision area clearly highlighted.
Copy of FIRM(s) attached depicting area of the revision (highlighted, or circled)? ☒ Yes

Downstream Limit: New study, see draft FIRM panels for limits of new delineations

Upstream Limit: River Mile 3.84

2. MODELS SUBMITTED

Requirements: for areas which have detailed flooding:
Full input and output listings along with files on diskette for each of the models listed below (items 1-4) and a summary of the source of input parameters used in the models must be provided. The summary must include a description of any changes made from model to model (e.g., Duplicate Effective model to Corrected Effective model). At a minimum, the Duplicate Effective (item 1) and the Revised or Post-Project Conditions (item 4) models must be submitted. See instructions for directions on when other models may be required.

for areas which do not have detailed flooding:
Only the 100-year (Base) flood profile is required. A hydraulic model is not required for areas which do not have detailed flooding; however, BFEs may not be added to the revised FIRM. If a hydraulic model is developed for the area, items 3 and 4 described below must be submitted.

If hydraulic models are not developed, hydraulic analyses (including all calculations) for existing or pre-project conditions and revised or post-project conditions must be submitted.

1. Duplicate Effective Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
Copies of the hydraulic analysis used in the effective FIS, referred to as the effective models (10-, 50-, 100-, and 500-year multi-profile runs and the floodway run) must be obtained and then reproduced on the requester's equipment to produce the Duplicate Effective model. This is required to assure that the effective models input data has been transferred correctly to the requester's equipment and to assure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach.

2. Corrected Effective Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
The Corrected Effective model is the model that corrects any errors that occur in the Duplicate Effective model, adds any additional cross sections to the Duplicate Effective model, or incorporates more detailed topographic information than that used in the currently effective model. The Correctly Effective model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

3. Existing or Pre-Project Conditions Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
The Duplicate Effective model or Corrective Effective model is modified to produce the Existing or Pre-Project Conditions model to reflect any modifications that have occurred within the floodplain since the date of the Effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective model or Duplicate Effective model.

4. Revised or Post-Project Conditions Model ☐ **Natural** **File Name** _____ ☐ **Floodway** **File Name** _____
The Existing or Pre-Project Conditions model (or Duplicate Effective model or Corrected Effective model, as appropriate) is revised to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project. When the request is for the proposed project this model must reflect proposed conditions.

5. Other – Please attach a sheet describing all other models submitted along with the file names. ☒ **Natural** ☒ **Floodway**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

3. STARTING WATER-SURFACE ELEVATIONS

Explain how they were determined. Explanation Attached? ☒ Yes ☐ No

NOTE: If the effective study is an approximate study, the slope/area method is recommended. For detailed analysis studies, using a known water-surface elevation is recommended.

4. RESULTS (from the model used to revise the 100-year water surface elevations)

If the results indicate any of the following, attach an explanation - to this form, or to the hydraulic model printout- as to the reasonableness of the situation.

☐ Supercritial depth ☒ Critical Depth ☐ Drawdowns ☐ Negative Floodway Surcharges

☐ Floodway Surcharges Greater Than Maximum Allowed by Community/State

☐ Water surface elevations higher than the end points of cross sections.

☐ Floodway discharge is different than the Natural 100-year (base) flood discharge.

☐ Project causes 100-year floodplain or floodway elevations to increase (state if increases are located off the requester's property)

Explanation attached with Form ☒ **Explanation provided on attached printout** ☐

If Hydraulic model used is HEC-2, has it been checked with FEMA'S CHECK-2 computer program ☐ **Yes** ☐ **No**
(see instructions for information on how to obtain CHECK-2)

5. REVISED FIRM/FBFM AND FLOOD PROFILES

1. Profile Transition

a. 100-Year Water-Surface Elevations - indicate the difference in water surface elevations where the project 100-year elevations tie into the existing 100-year water surface elevations at each end of the project.

Downstream End _____ within _____ (feet) *Cross-Section #* Upstream End _____ within _____ (feet) *Cross-Section #*

b. Floodway Elevations - indicate the difference in water surface elevations where the project floodway elevations tie into the existing floodway water surface elevations at each end of the project.

Downstream End _____ within _____ (feet) *Cross-Section #* Upstream End _____ within _____ (feet) *Cross-Section #*

c. Floodway widths - indicate the difference in floodway widths where the project floodway widths tie into the existing floodway width at each end of the project.

Downstream End _____ within _____ (feet) *Cross-Section #* Upstream End _____ within _____ (feet) *Cross-Section #*

2. Profile Checklist (check box if information has been provided on profile)

The following information (unless in parentheses) must be included at the same scale as the existing profiles for this project:

☒ Stream Name ☒ Community Name ☐ Corporate Limits labeled ☒ Study limits labeled

☒ Confluences labeled ☒ Channel Stationing ☒ Streambed profiled ☒ Cross Sections labeled

☒ Horizontal/Vertical Scales indicated ☒ 100-year elevs profiled*

☐ Road Crossings ☐ Labeled ☐ Low Chord Elevations ☐ Top of Road Elevations

*All recurrence intervals in the effective study must also be profiled.

Floodway Data Table

Attach a Floodway Data Table for each cross section listed in the published Floodway Data table in the FIS report.

Floodway Data Table Attached ☒ **Yes** ☐ **Not Required**

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE / COASTAL MAPPING FORM**	O.M.B No. 3067-0148 Expires April 30, 2001

ublic reporting burden for this form is estimated to average 1.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

You are not required to respond to this collection of information unless a valid OMB Control Number is displayed in the upper right corner of this form.

Note: Fill out one form for each flooding source studied

Community Name: City of Phoenix

Flooding Source: Sonoran Wash

Project Name/Identifier: Skunk Creek Watercourse Master Plan, FCDMD Contract No. 99-23

This is a ☒ Manual ☐ Digital submission. *Digital map submissions may be used to update digital FIRMs (DFIRMs). For updating DFIRMs, these submissions must be coordinated with FEMA Headquarters as far in advance as possible.*

1. MAPPING CHANGES

1. A topographic workmap must be submitted showing the following information (check N/A when not applicable):

a. Revised approximate 100-year floodplain boundaries (Zone A)	☐ Yes	☐ No	☒ N/A
b. Revised detailed 100- and 500-year floodplain boundaries.	☐ Yes	☐ No	☒ N/A
c. Revised floodway boundaries	☐ Yes	☐ No	☒ N/A
d. Location and alignment of all cross sections with stationing control indicated.	☒ Yes	☐ No	☐ N/A
e. Stream alignments, road alignments and dam alignments.	☒ Yes	☐ No	☐ N/A
f. Current community boundaries.	☒ Yes	☐ No	☐ N/A
g. Effective 100- year floodplain and floodway boundaries from FIRM/FBFM reduced or enlarged to the scale of the topographic workmap	☒ Yes	☐ No	☐ N/A
h. Tie-ins between the effective and revised 100-, 500-year and floodway boundaries	☐ Yes	☐ No	☒ N/A
i. The requester's property boundaries and community easements	☐ Yes	☐ No	☒ N/A
j. The signed certification of a registered professional engineer	☒ Yes	☐ No	☐ N/A
k. Location and description of reference marks	☒ Yes	☐ No	☐ N/A
l. Vertical datum (example: NGVD, NAVD)	☒ Yes	☐ No	☐ N/A
m. Coastal zone designations tie into adjacent areas not being revised	☐ Yes	☐ No	☒ N/A
n. Location and alignment of all coastal transects used to revise the coastal analyze	☐ Yes	☐ No	☒ N/A
o. V-zone has been delineated to extend landward to the heel of the primary frontal dune	☐ Yes	☐ No	☒ N/A

If any items are marked No or N/A please attach an explanation.

2. What is the source and date of the updated topographic information (example: orthophoto maps, July 1985; filed survey, May 1979, beach profile, June 1987 etc.)? Orthophoto maps, July 1999

3. What is the scale and contour interval of the following workmaps?

Effective FIS Scale N/A Contour Interval N/A

Revision Request Scale 1" = 200' Contour Interval 2'

NOTE: Revised topographic information must be of equal or greater detail than effective.

4. Attach an annotated FIRM/FBFM at the scale of the effective FIRM/FBFM showing the revised 100- and 500-year floodplain and the floodway boundaries and how they tie into those shown on the effective FIRM/FBFM downstream and upstream of the revisions or adjacent to the area of revision for coastal studies. **FIRM/FBFM attached? ☒ Yes ☐ No**

PLEASE REFER TO THE INSTRUCTIONS FOR THE APPROPRIATE MAILING ADDRESS

2. EARTH FILL PLACEMENT

1. The fill is: ☐ Existing ☐ Proposed

2. Has fill been/will be placed in the regulatory floodway? ☐ Yes ☐ No
If Yes, please attach completed Riverine Hydraulic Analysis Form (Form 4).

3. Has fill been/will be placed in floodway fringe (*area between the floodway and 100-year floodplain boundaries*)? ☐ Yes ☐ No

If Yes, then complete A, B, C, and D below.

a. Are fill slopes for granular materials steeper than one vertical on one-and-one-half horizontal? ☐ Yes ☐ No

If Yes, justify steeper slopes _____

b. Is adequate erosion protection provided for fill slopes exposed to moving flood waters? (*Slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap.)*

☐ Yes ☐ No

If No, describe erosion protection provided _____

c. Has all fill placed in revised 100-year floodplain been compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Method or acceptable equivalent method? ☐ Yes ☐ No

d. Can structures conceivably be constructed on the fill at any time in the future? ☐ Yes ☐ No

If Yes, attach certification of fill compaction (item 3c. above) by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer in accordance with Subparagraph 65.5(a)(6) of the NFIP regulations.

Fill certification attached ☐ **Yes** ☐ **No**

4. Has fill been/will be placed in a V zone? ☐ Yes ☐ No

If Yes, is the fill protected from erosion by a flood control structure such as a revetment or seawall?

☐ Yes ☐ No

If Yes, attach the Coastal Structures Form (Form 10).

3.0 SURVEY AND MAPPING INFORMATION

3.1 FIELD SURVEY INFORMATION

Survey control for the mapping was done by Tetra Tech, Inc. Survey control for this study includes panel points that were laid for the aerial mapping and the establishment of Elevation Reference Marks (ERMs) within the Sonoran Wash watershed.

The coordinate grid system is based upon the North American Datum of 1983 (NAD 83), Arizona State Plane Coordinate System. Elevations are based upon the National Geodetic Vertical Datum of 1929 (NGVD 29). Coordinates are listed in international feet.

Refer to Appendix L for the survey notes for this project.

3.2 MAPPING

Aerial Mapping Company mapped Sonoran Wash (Job #99148). This mapping, at a scale of 1 inch = 200 feet, with 2 foot contour interval, was based on photographs taken on July 20, 1999. It was provided in AutoCAD digital format and used at various scales for the purposes of this study. Additional mapping was needed to cover the entire Sonoran Wash watershed. This additional mapping is 7.5 minute USGS Quadrangle Maps that cover the watershed area. The New River Southeast and Union Hills quadrangle maps were used. This mapping has a photography date of 1962, a map date of 1981, and a contour interval of 20 feet.

4.0 HYDROLOGY

4.1 METHOD DESCRIPTION

Sonoran Wash was modeled using the procedures and methods that are contained in the Hydrologic Design Manual for Maricopa County, Arizona (January 9, 1997 update), referred to herein as the Maricopa County Hydrology Manual.

The rainfall-runoff model was run using the U.S. Army Corps of Engineers HEC-1 computer program, version 4.0.1E, September 1990, as implemented by Dodson and Associates. Rainfall losses were calculated by use of the Green and Ampt infiltration equation with an allowance for surface retention loss. Channel routing was performed using the normal depth Modified Puls method. Reservoir routing was not used in this analysis.

Peak discharges were estimated at various concentration points. A storm with a return period of 100-years was modeled and the results are presented herein.

4.2 PARAMETER ESTIMATION: HEC-1 MODEL

4.2.1 Drainage Area Boundaries

The study area is shown in Figure 4-1. The Sonoran Wash watershed is approximately 13.4 square miles in area.

4.2.2 Watershed Work Maps

Refer to Plate 1 for the watershed work maps for HEC-1 modeling.

4.2.3 Gage Data

No gage data was available for Sonoran Wash.

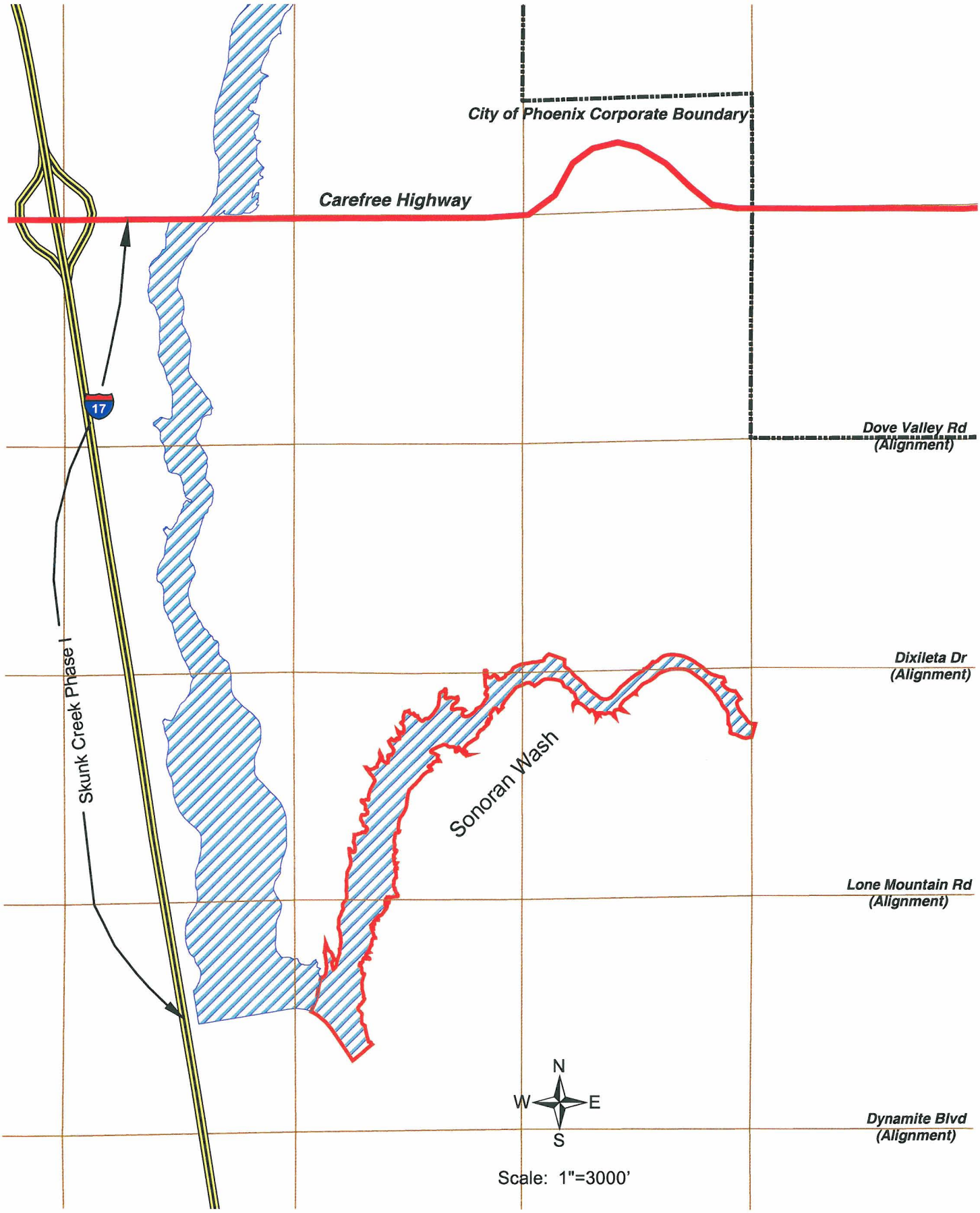

Figure 4-1 Study Area

4.2.4 Statistical Parameters

The only statistical data for the Sonoran Wash watershed is for precipitation and those statistics were obtained from the NOAA Atlas 2, Arizona. The statistics from the NOAA Atlas were analyzed to develop the rainfall depth-duration-frequency table for the watershed. The analysis was performed using the PREFRE program. The program output is shown in Table 4-1.

4.2.5 Precipitation

The rainfall depths used for the HEC-1 model were obtained from the depth-duration-frequency tables shown in Tables 4-1. The 24-hour, SCS Type II distribution was used. Refer to the Maricopa County Hydrology Manual for details on the SCS Type II distribution. The precipitation depths were adjusted for storm areal coverage using the depth-area reduction factors in the Maricopa County Hydrology Manual, Tables 2.1a and Table 2.2.

Table 4-1: Rainfall Depth-Duration-Frequency Table for Point Rainfall in the Sonoran Wash Study Area

*** O U T P U T D A T A ***
REVISED JUNE 1988 TO UPDATE COMPUTATION OF SHORT-DURATION VALUES

PRECIPITATION FREQUENCY VALUES FOR SONORAN WASH FOUR POINT
PRIMARY ZONE NUMBER= 7
SHORT-DURATION ZONE NUMBER= 8

POINT VALUES

	RETURN PERIOD							
DURATION	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR	500-YR	
5-MIN	.35	.44	.51	.60	.68	.75	.92	5-MIN
10-MIN	.52	.67	.77	.92	1.04	1.15	1.41	10-MIN
15-MIN	.63	.83	.97	1.17	1.32	1.47	1.82	15-MIN
30-MIN	.83	1.12	1.31	1.58	1.79	2.00	2.48	30-MIN
1-HR	1.01	1.38	1.63	1.97	2.24	2.50	3.11	1-HR
2-HR	1.15	1.55	1.82	2.20	2.49	2.79	3.46	2-HR
3-HR	1.23	1.66	1.95	2.35	2.67	2.98	3.70	3-HR
6-HR	1.40	1.87	2.20	2.64	2.99	3.34	4.14	6-HR
12-HR	1.60	2.13	2.49	2.99	3.38	3.77	4.67	12-HR
24-HR	1.80	2.38	2.78	3.34	3.77	4.20	5.19	24-HR

* IF YOUR SITE IS IN ARIZONA OR NEW MEXICO, PLEASE CONSULT THE FOLLOWING PAPER FOR REVISED DEPTH-AREA VALUES:
DEPTH-AREA RATIOS IN THE SEMI-ARID SOUTHWEST UNITED STATES
NOAA TECHNICAL MEMORANDUM NWS HYDRO-40
ZEHR AND MYERS
AUGUST 1984

INPUT DATA

PROJECT NAME=SONORAN WASH FOUR POINT
ZONE= 7 SHORT-DURATION ZONE= 8
LATITUDE= .00 LONGITUDE= 100.00 ELEVATION= 0
2-YR, 6-HR PCPN= 1.40 100-YR, 6-HR PCPN= 3.34
2-YR, 24-HR PCPN= 1.80 100-YR, 24-HR PCPN= 4.20
* * * * E N D OF R U N * * * *

4.2.6 Physical Parameters

4.2.6.1 Rainfall Losses

Soils Information

Based on the SCS Aguila-Carefree soil survey, there are sixteen different soils in the Sonoran Wash watershed. Descriptions of the soils present on the watershed are contained in Appendix A of the Maricopa County Hydrology Manual, Aguila-Carefree loss rate parameters. A soil boundary map for the watershed is provided on Plate 2. Selected information from the soil survey is summarized in Table 4-2. Those values are selected based on the soil texture classification and use of Table 4.2 in the Maricopa County Hydrology Manual.

Table 4-2: Sonoran Wash Summary of Soils Information

Soil Map Unit (1)	Bare Ground XKSAT in/hr (2)	Natural				
		RTIMP % (3)	Veg. Cover % (4)	Slope Range % (5)	Terrain Class (6)	IA in (7)
3	0.58	0	30	0-3	Rangeland	0.35
12	0.01	0	35	1-8	Rangeland	0.35
13	0.01	0	30	0-3	Rangeland	0.35
21	0.38	0	10	0-3	Rangeland	0.35
23	0.01	0	25	0-3	Rangeland	0.35
44	0.03	0	30	1-8	Rangeland	0.35
52	0.16	20	30	7-55	Mountain	0.25
55	0.27	0	25	0-3	Rangeland	0.35
68	0.63	0	10	1-7	Rangeland	0.35
98	0.37	0	15	1-10	Rangeland	0.35
100	0.40	20	25	20-65	Mountain	0.25
110	0.13	0	10	1-7	Rangeland	0.35
112	0.39	0	25	0-3	Rangeland	0.35
118	0.42	0	30	0-3	Rangeland	0.35
123	0.37	0	20	1-20	Hillslope	0.15
124	0.39	0	18	0-3	Rangeland	0.35

Land Use Information

Existing condition land use information was taken from aerial photographs and found to be undeveloped and natural.

Surface Retention Loss

The loss of rainfall due to surface retention in undeveloped areas of the watershed is based on the terrain and soil type. Inspection of the soils map (Plate 2) and the topography of the watershed demonstrate that the various soils correspond to general terrain classifications. Therefore, the surface retention loss (IA) of land in its natural condition is assigned based on the soil class. Guidance for surface retention loss is obtained from Table 4-1 of the Maricopa County Hydrology Manual. The selected values for IA for each soil are shown in Table 4-2 for the natural condition. Surface retention loss values were calculated by area-weighting the individual values of IA for each sub-area of soil in each subbasin. Refer to Appendix A, Table A-6 for a summary of the weighted IA values used in this model.

Vegetation Cover

Vegetation cover is known to have a significant impact on infiltration rainfall losses. The effects of vegetation cover are accounted for by adjustment of XKSAT. An estimate of the vegetation cover is needed for land in its natural condition. For Sonoran Wash the vegetation cover is estimated by use of the Aguila-Carefree Soil Survey and the county aerial photographs. The selected value for vegetation cover for each soil is shown in Table 4-2. The composite vegetation cover value for each subbasin is calculated by area-weighting the individual values of vegetation cover for each sub-area of soil in each subbasin.

Green and Ampt Parameters

Green and Ampt parameters (XKSAT, PSIF, and DTHETA) for each subbasin are calculated by the procedures in the Maricopa County Hydrology Manual. Appendix A contains the rainfall loss parameter calculations for the HEC-1 model. The basic calculations for each subbasin are shown in the worksheets of Appendix A, Table A-6. Those calculations consist of the following steps:

Step 1 - The log-average of the hydraulic conductivity (XKSAT) is calculated. This is the bare ground value. The adjustment for vegetation cover is made at a later point.

Step 2 - The values of capillary suction (PSIF) and soil moisture deficit (DTHETA) are selected from Appendix A, Table A-1, which is derived from Figure 4.3 of the Maricopa County Hydrology Manual, based on the log-average bare ground value of XKSAT. The dry DTHETA is used for land in its natural condition and normal DTHETA is used for developed land.

Step 3 - The weighted averages of rock outcrop (RTIMP), vegetation cover, and surface retention loss (IA) are obtained, averaged for the entire subbasin assuming no development is present.

The worksheets in Appendix A provide the data that is used for these calculations and the results for each subbasin. Summary tables can also be found in Appendix A. Refer to Table 4-3 for a summary of existing condition Sonoran Wash watershed characteristics.

Table 4-3: Sonoran Wash Summary of Watershed Characteristics

Sub Basin ID (1)	Area sq. mi. (2)	Green and Ampt Loss Parameters					
		IA inches (3)	DTHETA (4)	PSIF inches (5)	XKSAT in/hr (6)	RTIMP % (7)	Hydrograph Method (8)
U1	0.8086	0.29	0.35	7.00	0.12	12.7	Mountain
U2	1.7573	0.32	0.19	11.20	0.02	6.0	Rangeland
U3	1.6083	0.32	0.22	10.10	0.04	5.7	Rangeland
U4	0.8177	0.31	0.36	6.80	0.13	7.5	Rangeland
U5	1.2864	0.31	0.32	7.60	0.10	7.2	Rangeland
U6	0.6895	0.30	0.35	7.00	0.12	9.5	Mountain
U7	0.7353	0.31	0.37	5.30	0.23	8.5	Mountain
U8	0.3344	0.28	0.35	4.40	0.36	11.8	Mountain
U9	0.4267	0.35	0.29	8.40	0.07	0.1	Rangeland
U10	0.7412	0.29	0.33	7.30	0.11	1.0	Mountain
U11	0.9196	0.32	0.37	6.60	0.14	0.9	Rangeland
U12	0.9844	0.32	0.35	7.00	0.12	3.1	Rangeland
U13	1.0316	0.31	0.37	6.60	0.14	7.1	Mountain
U13A	0.3501	0.27	0.37	6.60	0.15	16.0	Mountain
U14	0.6547	0.34	0.19	11.20	0.02	2.3	Rangeland
U15	0.5844	0.35	0.22	10.10	0.04	0.0	Rangeland

4.2.6.2 Unit Hydrographs

The S-graph method was used for unit hydrographs. A lag time for each sub-basin was calculated based on the procedures outlined in the Maricopa County Hydrology Manual. The mean Manning's n-values (K_n) for each subbasin are summarized in Table 4-4. These K_n values were then used to establish the UI cards within the HEC-1 model. Refer to Appendix A for all lag calculations.

Table 4-4: Sonoran Wash Lag Parameters

Sub basin ID (1)	Hydrograph Type (2)	Elevation in feet		Lag or Tc Flow Path miles (5)	Slope ft/mile (6)	Adjusted Slope ft/mile (7)	Lca miles (8)	Surface Roughness Type (9)	Kn (11)
		Top (3)	Bottom (4)						
U1	Mountain	2364	1702	1.0511	630	---	0.497	D	0.050
U2	Rangeland	1839	1611	2.5170	91	---	1.409	A/B	0.027
U3	Rangeland	1763	1611	2.7313	56	---	1.739	A/B	0.027
U4	Rangeland	1907	1611	2.1669	137	---	1.413	B/C	0.030
U5	Rangeland	1848	1573	2.3063	119	---	1.350	B/C	0.030
U6	Mountain	1812	1573	1.4422	166	---	0.854	C	0.033
U7	Mountain	2095	1573	2.2617	231	---	1.627	C/D	0.045
U8	Mountain	2422	1743	1.0902	623	---	0.507	D	0.050
U9	Rangeland	1845	1563	2.5409	111	---	1.171	A/B	0.027
U10	Mountain	2228	1616	1.8153	337	---	1.256	C	0.033
U11	Rangeland	1900	1563	2.7805	121	---	1.308	A/B	0.027
U12	Rangeland	1730	1550	2.3848	75	---	0.772	B	0.028
U13	Mountain	2100	1538	1.6206	347	---	0.706	C/D	0.045
U13A	Mountain	2100	1538	1.6206	347	---	1.100	C/D	0.045
U14	Rangeland	1767	1579	2.3061	82	---	1.228	A/B	0.027
U15	Rangeland	1579	1529	1.4824	34	---	0.756	A/B	0.027

4.2.6.3 Channel Routing

General

Routing of the Sonoran Wash model subbasin hydrographs is done utilizing the Modified Puls normal depth channel option in HEC-1. The routing reach paths are shown on Plate 1. Each route is identified by a name consisting of the upper and lower concentration point numbers defining the reach. Reach 002003, for instance, starts at concentration point 002 at the upper end and extends to concentration point 003 at the lower end.

The routing reaches, routing parameters, and related routing information are provided in Appendix A, Tables A-8 and A-9. The watershed mapping was used to measure the reach lengths, estimate the slope of each reach, and determine the eight-point channel cross sections.

The other parameters necessary for the hydraulic computations are:

- Number of routing computation steps
- Main time interval
- Channel infiltration losses

The selection of these parameters and a check on the reasonableness of the selections is discussed in the following sections.

Reach Route Step Estimation

Estimation of the number of routing steps for input to the HEC-1 models is an iterative process. The number of routing steps for each reach varies with the recurrence interval storm under consideration. Refer to the tables in Appendix A for reach route physical data and hydrologic routing calculation results. The process for estimating the number of steps is as follows:

Step 1: An initial estimate of the number of steps (NSTEPS) for each reach is made, assuming an average velocity of 5 feet per second. The HEC-1 models are run using the assumed values.

Step 2: The reach travel time is calculated by subtracting the time-to-peak (T_p) at the beginning of route operation from the T_p at the end of the route operation. A new estimate of NSTEPS for each reach is then calculated using the reach length and HEC-1 computed travel time. The HEC-1 models are then re-run using the new NSTEPS estimates.

Step 3: Step 2 is repeated until the travel time from the previous run equals the travel time from the current run. Convergence normally occurs within three iterations.

Main Time Interval

The time interval (NMIN) used for the model was 5 minutes. This value was chosen to match the NMIN values used in the effective Skunk Creek FIS models. This model was utilized in conjunction with the Skunk Creek model for the purpose of the Skunk Creek Watercourse Master Plan (WCMP).

Channel Infiltration Losses

Channel infiltration losses were not included in the routing computations. These losses are considered negligible.

4.2.6.4 Storage Routing

No storage routing was done in this analysis.

4.3 PROBLEMS ENCOUNTERED DURING THE STUDY

4.3.1 Special Problems and Solutions

No special problems were encountered during this study.

4.3.2 Modeling Warning and Error Messages

Two warnings occur in this model. They both refer to instability of the Modified Puls routing routine. Both routes peak at a discharge far below the instability range and are therefore not of concern. No error messages occurred within the model.

4.4 CALIBRATION

There is insufficient gage data available to perform calibration of the HEC-1 models.

4.5 FINAL RESULTS

4.5.1 Hydrologic Analysis Results

The results of the modeling are shown in Table 4-5. The estimated peak discharges and runoff volume results are summarized. The HEC-1 output file can be found in Appendix B. The diskette with the input file can be found in Appendix C.

Table 4-5: Summary of Peak Discharge and Runoff Volume for Sonoran Wash

HEC-1 ID	Drainage Area [sq. mi.]	Time of Peak [hr]	Peak Discharge [cfs]	Rainfall Excess [in]	Runoff Volume [ac-ft]
Channel Route Operations					
1002	2.08	12.67	974	1.841	204.2
2003	4.28	12.42	5,797	2.110	481.6
3007	2.82	12.67	7,726	1.892	284.6
4006	8.04	13.08	289	1.510	647.5
5006	1.02	12.25	971	1.567	85.2
6007	1.80	12.33	2,762	1.513	145.2
7010	12.66	12.92	9,077	1.718	1,160.0
8010	0.92	12.50	965	2.511	123.2
Subbasin Operations					
U1	2.08	12.08	1,474	1.841	204.2
U2	1.17	12.25	2,857	2.550	159.1
U3	1.03	12.33	2,233	2.166	119.0
U4	0.97	12.25	1,198	1.667	86.2
U6	1.85	12.17	1,132	1.748	172.5
U5	0.94	12.25	1,897	1.753	87.9
U7	1.02	12.33	726	1.533	83.4
U12	1.80	12.17	1,588	1.575	151.2
U8	0.68	12.08	529	1.510	54.8
U9	1.12	12.25	687	1.741	104.0
U10	1.27	12.17	1,160	1.567	106.1
U11	0.92	12.25	1,328	1.450	71.1
U13	0.91	12.17	1,539	1.621	78.7
U14	0.83	12.25	1,112	2.511	111.2
U15	0.61	12.17	1,083	2.055	66.9
U13A	0.43	12.25	472	1.858	42.6
Concentration Points					
C002L	3.25	12.33	3,267	2.301	398.8
C002	4.28	12.33	6,492	2.110	481.6
C003L	2.82	12.42	6,303	2.042	307.1
C003	8.04	12.33	8,359	1.892	811.3
C007L	1.80	12.58	8,039	1.831	175.8
C006L	12.66	12.25	693	1.637	1,105.3
C006R	1.83	12.25	2,274	1.484	144.8
C006	15.76	12.25	2,938	1.513	1,271.7
C007	16.59	12.50	9,664	1.718	1,520.1
C010L	1.04	12.92	9,203	1.690	93.7
C010R	1.60	12.25	1,673	2.282	194.7
C010	1.88	12.83	9,825	1.717	172.2

4.5.2 Verification of Results

HEC-1 modeling results were verified using the indirect methods documented in Chapter 10 of the "ADOT Highway Drainage Design Manual: Hydrology" (ADOT Manual). Three procedures are provided for obtaining estimates of peak discharges for watersheds in Arizona. The Sonoran Wash watershed is well-suited for a comparative analysis using these methods because it is hydrologically similar to the watersheds used to develop the indirect methods. The Sonoran Wash watershed is undeveloped, natural land, with soil and vegetation conditions that are conducive to neither very low rainfall losses or to excessive rainfall losses. The watershed slopes are not exceptionally steep or flat and there are no significant distributary flow areas. Appendix D contains the worksheets used for the three verification methods. A summary of the verification results is given in the following paragraphs.

Indirect Method 1: Unit Peak Discharge Curves

Figure 10-1 in the ADOT Manual shows peak discharge relations and envelope curves from 10 different hydrologic studies. Curves C, G, and H represent data sets from 100-year peak discharge studies. The unit peak discharge from the Sonoran Wash model falls within the area bounded by these three curves.

Indirect Method 2: USGS Data for Arizona

The U.S. Geological Survey analyzed streamflow data from 314 gaging stations in Arizona. Figure 10-3 in the ADOT Manual is a plot of the 100-year peak discharge and the maximum recorded discharge for each gaging station versus drainage area. The least squares method was used to fit lines to the two log-transformed data sets. The peak discharge from the Sonoran Wash model falls above the 75 percent tolerance limit for the fitted 100-year peak discharge line, but is not outside of the scattered "cloud" of data points used to make the graph.

Indirect Method 3: Regional Regression Equations

Sixteen sets of regional regression equations were developed from streamflow data for a study area comprised of 10 western states. Seven of the regions are in Arizona. Sonoran Wash falls in Region 12. Figure 10-20 of the ADOT Manual is used to determine if the regression equations are applicable to the study watershed by determining if the independent variables fall within a "cloud of common values" from the data set used to develop the equations. The mean basin elevation versus drainage area for Sonoran Wash falls at the edge of the "cloud of common values". The 100-

year peak discharge for Sonoran Wash falls well within the confidence limits of the regression equation result.

5.0 HYDRAULICS

5.1 METHOD DESCRIPTION

5.1.1 General

The floodplain study reach for Sonoran Wash commences at the crossing of Sonoran Wash with the CAP Canal and extends upstream for approximately 4 miles. Two hydraulic models are developed to analyze the study reach, a two-dimensional hydraulic model (FLO-2D) and a one-dimensional hydraulic model (HEC-RAS). The FLO-2D delineation commences at the CAP Canal at River Mile (RM) 0.52 and extends upstream to RM 0.92. The HEC-RAS hydraulic model commences at RM 0.92 and extends upstream to RM 3.84. River Mile stationing is based on the distance upstream of the confluence of Sonoran Wash and Skunk Creek.

Two-dimensional hydraulic computations performed for the Floodplain and Floodway Delineation for Sonoran Wash are completed following procedures and guidelines listed in FEMA Document 37, "Flood Insurance Study Guidelines and Specifications for Study Contractors", "Drainage Design Manual for Maricopa County, Volume II Hydraulics", and "FLO-2D Users Manual". Tetra Tech, Inc.'s FLO-2D computer program, version 2000.01 was used to conduct floodplain/floodway delineation hydraulic analyses.

One-dimensional hydraulic computations performed for the Floodplain and Floodway Delineation for Sonoran Wash are completed following procedures and guidelines listed in FEMA Document 37, "Flood Insurance Study Guidelines and Specifications for Study Contractors", "Drainage Design Manual for Maricopa County, Volume II Hydraulics" and the U.S. Army Corps of Engineers, "HEC-RAS River Analysis System User Manual". The U.S. Army Corps of Engineers "HEC-RAS, River Analysis System", computer program (Version 2.2) is used to conduct floodplain/floodway delineation hydraulic analyses.

5.1.2 FLO-2D Hydraulic Model

The FLO-2D floodplain/floodway delineation commences at the CAP Canal at RM 0.52 and extends upstream to RM 0.92, but the model itself encompasses the confluence of Skunk Creek and Sonoran Wash and the area where both watercourses cross the CAP Canal. This area is a very broad, flat floodplain, which, in combination with the structures associated with the CAP Canal, produces complex, two-dimensional flow patterns. Because the water surface elevations in this area of Skunk Creek are critical to future development, the Flood Control District of Maricopa County authorized Tetra Tech, Inc. to conduct a two-dimensional flow analysis to better define the following:

- 100-year water-surface elevations, limits of flooding, and flow patterns upstream and downstream of the CAP Canal
- the number, location, and magnitude of flows that would break out of the Skunk Creek/Sonoran Wash corridors during the 100-year flood event
- the associated hydraulic parameters (depths, velocities, etc.)
- the location and type of hydraulic controls
- the modifications needed to contain the 100-year event within the Skunk Creek/Sonoran Wash corridors
- the ability of the CAP Canal overchute structures to accommodate the 100-year event
- the impact of the 2D analysis results on the starting water-surface elevations specified in existing FIS studies on Skunk Creek and the initial FIS study on Sonoran Wash
- the recurrence interval of the initial breakout flow.

Since the portion of Sonoran Wash delineated by the FLO-2D model is essentially a ponding area, the floodway is considered to be coincident with the floodplain. No separate floodway model was built. A CD containing the FLO-2D input and output files is included in Appendix H.

5.1.3 HEC-RAS Hydraulic Model

The HEC-RAS hydraulic model evaluates both the 100-year floodplain and floodway. The model commences at the RM 0.92 of Sonoran Wash. The starting water surface elevation for floodplain delineation is based on the results of the FLO-2D model. The starting water surface elevation for floodway modeling efforts was set 1 foot higher than the 100-year base flood elevation calculated for non encroached conditions. Computer output files for the hydraulic model are located in Appendix E. Diskettes with computer input files for HEC-RAS models developed for this study are located in Appendix F.

5.2 WORK STUDY MAPS

Work study maps displaying topography, cultural features and effective 100-year floodplain and floodway limits are prepared at a scale of 1" = 200' and a contour interval of 2 feet. Work study maps for Sonoran Wash are presented as Plate 3, Sheets 1 through 4. A Legend provided on each figure explains the nomenclature and symbols used.

Annotated Flood Insurance Rate Maps are provided in Appendix K.

5.3 PARAMETER ESTIMATION HEC-RAS MODEL

This section describes procedures utilized to estimate input parameters to the HEC-RAS models developed for the study.

5.3.1 Manning's n-Value

The study reach of Sonoran Wash is separated into 13 reaches that have similar hydraulic characteristics, and therefore have similar Manning's n-values. Reach numbering is from downstream to upstream starting at Reach 1, at the Central Arizona Project (CAP) overchute (River Mile 0.52), and ending at Reach 13 (River Mile 3.84). Reach numbering is not related to numbering or naming of reaches in any other adjacent study. Plate G1 (see Appendix G) shows the location and limit of each reach as well as locations of photographs of typical reach characteristics. Photographs, cross-section plots displaying bank station locations and Manning's n-value calculation sheets are provided in Appendix G.

Each reach is identified based upon field reconnaissance, ground photographs and by examining 9-inch by 9-inch aerial photographs (1:7,200 scale). The discerning characteristics are channel size and shape, similarities in bed material, vegetation and the presence or absence of channel obstructions. The entire study length was viewed on foot during the field reconnaissance and each reach was photographed at representative locations.

Manning's n-values are estimated using the method set forth in the U.S. Geological Survey publication Estimated Manning's n-Values for Stream Channels and Flood Plains in Maricopa County Arizona (USGS, 1991). The method involves the selection of an initial value of Manning's n-value based upon the bed material and then the adjustment of that value for channel irregularities, the effects of obstructions, vegetation and channel cross-sectional variations. If the channel has sufficient meander to increase roughness, then the sum of the base n-value plus subsequent adjustments is multiplied by a meander value, m.

The base n-value for the bed material roughness is estimated from field investigations. A 1-foot square grid (grid on 1-inch centers) is utilized for the estimation of the average size of bed material. Adjustment of the base n-value is then made based on vegetation present in the channel and the overbanks, field assessment

of the channel bank conditions and the impact of any obstructions and a review of the cross-section plots for variations in channel geometry.

Reach 1 consists of only one cross-section, River Mile (RM) 0.52. This cross-section represents the concrete CAP overchute. A base Manning's n-value of 0.015 is selected for the entire cross-section with no adjustments.

Reaches 2, 3 and 4 extend from RM 0.57 to RM 1.00. The bed material for these reaches consists of coarse sand and fine gravel in the channel and fine sand and silt in the overbanks. A base Manning's n-value of 0.026 and 0.025 is selected for the channel and overbanks, respectively. Adjustments to the base n-values are primarily due to vegetation. There are minor, isolated pockets of vegetation present in the main channel and the channel banks are heavily lined with vegetation. In order to separate the bank vegetation from the channel bed vegetation on the n-value calculation sheets, the channel bed vegetation is considered as channel obstructions. Overbank vegetation varies both laterally and longitudinally throughout each reach. A weighted vegetation n-value adjustment is estimated for both the left and right overbanks for each reach. With the exception of Reach 4, there are no other adjustments to the base n-values. For Reach 4, additional adjustments are made to the base n-value to account for occasional variations in the channel geometry and left overbank.

Reach 5 extends from RM 1.09 to RM 1.77. The channel can be characterized by 'riffles and pools'. The bed material for this reach consists of coarse sand and gravel in the pools and cobbles with coarse sand and gravel and minor boulders in the riffles. A reach average base Manning's n-value for the channel of 0.028 is selected. The base Manning's n-value for the overbank bed material is 0.025. As with the lower reaches, the primary adjustment to the base n-value is due to vegetation. The vegetative conditions for Reach 5 are similar to those of the lower reaches and a weighted n-value adjustment is estimated for both overbanks.

Just upstream of Reach 5, the general bed characteristics of Sonoran Wash change from a 'riffle and pool' watercourse dominated by pools to a 'riffle and pool' watercourse dominated by riffles. In general, the channel bed material can be described as a matrix of material ranging in size between coarse sand, gravel, cobbles and minor boulders with the cobble component being greater than what was observed for Reach 5. A base average Manning's n-value of 0.030 is selected for all reaches

upstream of Reach 5. Vegetative conditions in both the channel and overbanks are similar to those of the lower reaches.

Further differentiation of the upper portion of the study (Reaches 6 through 13) is based on the presence or absence of braided and tributary channels. Reaches 6 and 8 both include a tributary channel. In both locations, the tributary enters the main channel from the west. For Reaches 10 and 12, the channel is braided and the right braid is identified as the main channel. Additional consideration for all of the upper reaches (Reaches 6 through 13) is given to variations in channel geometry to account for the transitions in and out of the braided sections.

Table 5-1 lists the left overbank, channel and right overbank Manning's n-values utilized in the hydraulic analysis for Reaches 1 through 5 as well as Reaches 7, 9, 11 and 13. Reaches 6, 8, 10 and 12 are modeled using the horizontal variation in n-value option in HEC-RAS and these values are listed in Table 5-2. Where appropriate the weighted overbank n-values are further subdivided into uniform hydraulic sections. This is accomplished by using the horizontal variation in n-value option in HEC-RAS without adjusting the overbank n-value. Guidance for the subdivision is provided in Computation of Water-Surface Profiles in Open Channels (U.S.G.S., 1984).

TABLE 5-1

Summary of Manning's "n"-values Sonoran Wash

Reach Name	Cross-Sections	Manning's "n"-Value		
		Left Overbank	Channel	Right Overbank
1	0.52	0.015	0.015	0.015
2	0.57 – 0.66	0.125	0.036	0.050
3	0.73	0.050	0.038	0.075
4	0.77 – 1.00	0.080	0.037	0.060
5	1.09 – 1.77	0.050	0.040	0.050
7	1.90 – 2.64	0.060	0.045	0.055
9	2.73	0.060	0.045	0.055
11	2.97 – 3.70	0.060	0.045	0.055
13	3.79 – 3.84	0.060	0.045	0.055

TABLE 5-2

Summary of Manning's "n"-values Sonoran Wash (Braided Segment)

Reach Name	Cross-Sections	Manning's "n"-Value				
		Left Overbank	Channel	Overbank	Channel	Right Overbank
6	1.84	0.060	0.045	0.055	0.036	0.055
8	2.69	0.060	0.045	0.055	0.036	0.055
10	2.77 – 2.93	0.060	0.045	0.060	0.045	0.055
12	3.73 – 3.76	0.060	0.045	0.060	0.045	0.055

5.3.2 Expansion and Contraction Coefficients

Expansion and Contraction Coefficients were estimated from procedures and guidelines listed in the HEC-RAS User Manual. A summary of expansion and contraction coefficients used in the study are listed in Table 5-3.

TABLE 5-3

Summary of Expansion and Contraction Coefficients

Condition	Contraction Coefficient	Expansion Coefficient
Natural Reach Gradual Transitions	0.1	0.3
Channelized Reach Gradual Transitions	0.1	0.3
Transitions at Bridges	0.3	0.5

5.4 STARTING WATER SURFACE ELEVATION HEC-RAS MODEL

The starting water surface elevation of the HEC-RAS model, for the 100-year event, for Sonoran Wash was determined from the results of a two dimensional hydraulic model (FLO-2D) conducted for the area upstream of the CAP Canal. A starting water surface elevations of 1532.10 ft. was utilized at RM 0.92.

5.5 CROSS-SECTION DESCRIPTION HEC-RAS MODEL

Cross-section data are determined utilizing a digital terrain model (DTM) and topographic mapping. Distance between cross-sections is measured along the hydraulic baseline (thalweg). Distance between bank stations of each cross-section is measured along the anticipated path of the center of mass of the overbank flow. Should there be no overbank flow, distance between bank stations is measured along the top of bank. Bank stations are picked at what appeared to be a natural/improved channel bank, or at major grade break in channel side slopes. The following criteria for cross-section location and alignment was utilized.

1. The maximum distance between cross-sections is approximately 500 feet.

2. Cross-sections used for hydraulic modeling are orientated perpendicular to primary flow paths.

3. Cross-section stationing is from left to right looking downstream with the thalweg location set at station 10,000.

5.6 MODELING CONSIDERATIONS - HEC-RAS MODEL

The following subsections apply only to the HEC-RAS model developed for the study.

5.6.1 Supercritical Flow

Supercritical flow was not determined to be a flow condition for Sonoran Wash watercourse.

5.6.2 Bridges

There are no existing bridges crossing Sonoran Wash.

5.6.3 Levees and Dikes

There are no existing levees or dikes in the subject reaches.

5.6.4 Islands

At some locations along Sonoran Wash, divided flow conditions exist. Divided flow typically occurs when the flow patterns of the reach are braided. For the purpose of this study, islands resulting from divided flow are not delineated.

5.6.5 Flow Splits

At the CAP canal, flow from Sonoran Wash mixes with flow from Skunk Creek and ponds upstream of the canal. A two-dimensional FLO-2D analysis of this condition was undertaken to determine the backwater effect of the ponding on upstream water surface elevations for Sonoran Wash. A description of the analysis and results are presented in Sections 5.11 through 5.18.

5.6.6 Ineffective Flow Areas

The ineffective flow area option of the HEC-RAS computer program is used to model ineffective flow areas. Ineffective flow areas occur at locations of tributary inflow (back water with in tributary) to Sonoran Wash, in areas in which the expansion of the floodplain is greater that 4:1, within topographic depressions in which runoff is ponded.

5.7 FLOODWAY MODELING-HEC-RAS MODEL

The delineation of the floodway for Sonoran Wash was determined by utilizing the Method 4 and Method 1 encroachment analyses options of the HEC-RAS computer program. The Method 4 encroachment analysis was utilized first and then the floodway alignment was refined by utilizing the Method 1 option. Target water surface elevations were set and adjusted in the Method 4 analysis until the resultant rise in water surface elevation between encroached conditions and non-encroached conditions are near the 1 foot maximum allowed. The Method 1 analysis was utilized to refine the results of the Method 4 option. Encroachment stations determined in the Method 4 analysis are adjusted to provide a smooth floodway alignment.

5.8 PROBLEMS ENCOUNTERED DURING THE STUDY-HEC-RAS MODEL

5.8.1 Special Problems and Solutions

No special problems encountered with the HEC-RAS modeling efforts.

5.8.2 Modeling Warning and Error Messages

The model executes successfully without error messages for Sonoran Wash. The model does report several warning messages. The following are the most frequent warning messages reported:

- The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This is a common message received when modeling a river system that is characterized by

changes in the conveyance capacity of the channel relative to the overbank area and varies from cross-section to cross-section

- The energy loss was greater than 1.0-ft (0.3 m) between the current and previous cross-section. The message pertaining to energy loss of greater than 1 foot is to be expected, given that cross-section spacing is 300 to 500 feet and the friction slopes are greater than 0.004 ft/ft.
- The velocity head has changed by more than 0.5-ft (0.15 m). Channel velocities generally range between 8 and 14 fps within the channel for both Skunk Creek and Sonoran Wash. A velocity difference between cross-sections of 2 fps would result in a velocity head difference of more than 0.5 feet. A change of 2 fps between cross-sections is not unreasonable.

5.9 CALIBRATION-HEC-RAS MODEL

There are no stream gauge data for 100-year peak flows to calibrate hydraulic models.

5.10 HYDRAULIC ANALYSIS RESULTS-HEC-RAS MODEL

A summary of the results of the HEC-RAS hydraulic analysis for Sonoran Wash are listed on Table 5-4. A detailed listing of the results listed in the out put files for the HEC-RAS model is located in Appendix E.

TABLE 5-4

HEC-RAS Summary Output Table

Sonoran Wash 100-year Floodplain Model

River Sta	Peak Discharge (cfs)	Water Surface Elevation (ft)	Critical Water Surface Elevation (ft)	Average Velocity (ft/s)	Max Channel Depth (ft)	Froude # Channel	Top Width (ft)	Station Water Surface Left (ft)	Station Water Surface Right (ft)
1	2	3	4	5	6	7	8	9	10
0.92	9700	1532.1	1529.9	3.4	8.6	0.4	692.1	9891.5	10583.6
1	9700	1533.1		4.8	6.1	0.7	775.6	9670.5	10446.1
1.09	9700	1535.7	1535.6	5.2	9.2	0.7	858.5	9553.6	10429.5
1.15	9700	1537.9		4.3	7.6	0.6	964.5	9496.9	10462.9
1.21	9700	1539.6		4.7	8.3	0.7	1052.1	9357.3	10564.3
1.25	9700	1540.9	1540.1	3.3	9.4	0.5	1323.8	9355.5	10679.2
1.29	9700	1541.6		4.6	7.2	0.7	1125.1	9705.6	10830.7
1.33	9700	1542.8		4.4	6.0	0.7	1117.4	9801.4	10918.7
1.38	9700	1544.0	1543.6	4.3	7.3	0.6	1055.5	9921.3	10976.8
1.48	9700	1547.0		5.7	7.6	0.8	837.9	9767.9	10605.9
1.56	9700	1550.1		4.7	8.1	0.6	901.2	9634.7	10535.9
1.65	9700	1552.9	1552.9	5.6	9.9	0.7	880.9	9476.0	10357.0
1.72	9700	1555.1		4.9	10.5	0.6	893.8	9393.9	10287.7
1.77	9700	1556.4		4.8	10.8	0.6	934.1	9394.7	10328.8
1.84	9700	1558.4		4.5	9.3	0.5	878.6	9508.0	10386.6
1.9	9700	1560.2		5.1	9.2	0.7	954.5	9612.6	10567.3
1.99	9700	1563.3	1561.8	4.0	7.0	0.5	1214.2	9598.8	10916.0
2.08	8400	1565.6		3.6	7.0	0.5	1035.7	9624.4	10660.1
2.13	8400	1567.2	1567.2	7.5	8.1	0.9	857.2	9636.5	10838.2
2.19	8400	1570.1	1568.4	4.0	9.5	0.4	1295.9	9798.2	11098.6
2.28	8400	1572.0		7.3	7.9	0.8	376.0	9822.0	10197.9
2.35	8400	1574.9		6.2	10.0	0.6	402.0	9710.7	10112.7
2.41	8400	1576.7		4.1	11.2	0.5	685.5	9696.5	10382.0
2.46	8400	1577.7		7.9	8.9	0.9	358.2	9727.7	10085.8
2.52	8400	1580.7		4.2	9.1	0.4	483.0	9808.3	10291.3
2.58	8400	1581.6		5.8	8.0	0.7	539.5	9801.3	10340.9
2.64	8400	1583.9		5.4	7.9	0.6	461.7	9834.2	10295.9
2.69	8400	1585.4		4.2	8.9	0.5	654.4	9692.6	10380.2
2.73	6500	1586.2		5.5	7.9	0.7	380.6	9659.7	10040.4
2.77	6500	1587.8		6.7	6.0	0.8	362.9	9677.1	10040.0
2.84	6500	1590.7		5.7	6.7	0.6	326.8	9744.3	10071.1
2.88	6500	1592.6	1592.6	7.2	5.8	0.9	364.9	9704.6	10069.6
2.93	6500	1595.6		5.2	6.0	0.6	369.3	9741.1	10110.4
2.97	6500	1597.3	1597.3	6.9	6.5	0.8	345.7	9753.5	10099.1
3.05	6500	1600.9	1599.5	5.7	9.1	0.5	272.5	9940.2	10212.7

TABLE 5-4, continued

HEC-RAS Summary Output Table

Sonoran Wash 100-year Floodplain Model

River Sta	Peak Discharge (cfs)	Water Surface Elevation (ft)	Critical Water Surface Elevation (ft)	Average Velocity (ft/s)	Max Channel Depth (ft)	Froude # Channel	Top Width (ft)	Station Water Surface Left (ft)	Station Water Surface Right (ft)
1	2	3	4	5	6	7	8	9	10
3.1	6500	1602.1		6.6	7.7	0.7	275.3	9959.5	10234.8
3.15	6500	1604.1		5.8	8.1	0.6	291.3	9855.0	10146.3
3.24	6500	1607.2		6.3	8.5	0.7	292.1	9743.3	10035.4
3.31	6500	1610.2		5.3	8.3	0.6	342.0	9736.6	10078.6
3.4	6500	1612.7		6.1	8.6	0.6	283.4	9881.2	10164.7
3.46	6500	1614.4		7.3	9.2	0.7	228.8	9918.2	10147.0
3.54	6500	1617.9		5.8	8.0	0.6	292.4	9927.8	10220.2
3.61	6500	1620.2		7.0	8.9	0.8	293.0	9878.1	10171.1
3.65	6500	1622.3		4.5	8.3	0.5	407.6	9769.4	10177.0
3.7	3300	1623.3		3.6	7.8	0.4	268.9	9797.9	10066.7
3.73	3300	1624.0		3.7	5.1	0.5	328.0	9915.0	10243.1
3.76	3300	1624.8		4.3	4.7	0.7	394.9	9833.5	10228.4
3.79	3300	1626.2		4.3	5.1	0.7	409.4	9730.0	10139.3
3.84	3300	1628.2	1627.9	5.3	6.6	0.7	303.4	9821.2	10124.6

5.11 PARAMETER ESTIMATION - FLO-2D MODEL

5.11.1 Two-dimensional grid

The FLO-2D program simulates overland flow using topographic data files which are exported from a digital terrain map (DTM). The topographic data is used to create a finite element grid system covering the model area. The Sonoran Wash model uses 1,850 square grid elements that are 100 feet long on each side. Each grid element is assigned a ground point elevation at the center. Initially, these elevations were taken from the DTM data. Adjustments were then made to account for significant features such as existing channels, the CAP Canal embankments, and Canal overchute structures, which were not accurately accounted for in the interpolated DTM elevations. Plate 4 shows the grid and cross-section locations for the FLO-2D model. Note that the grid elements on Plate 4 are numbered from 17001 to 18850, not 1 to 1850. This is a result of using multiple sets of points in the AutoCAD drawing file and does not affect the model input, which uses point numbers 1 through 1850.

5.11.2 Manning's n-value

All grid elements were assigned a base Manning's n-value of 0.065. This value was an average Manning's n-value over the entire grid.

When flow depths are less than 0.5 feet, the FLO-2D program uses an alternate n-value for shallow overland flow. This value (SHALLOWN) was set at 0.12.

5.11.3 Flow Viscosity

FLO-2D has the capability of simulating mud and debris flows. Since a separate sediment transport analysis was conducted for the study, the two-dimensional analysis was conducted assuming clear-water discharges.

5.11.4 Infiltration

Infiltration was considered negligible, so no infiltration parameters were used in the model.

5.12 INFLOW AND OUTFLOW HYDROGRAPHS - FLO-2D MODEL

The FLO-2D model does not begin with a starting water surface elevation. Instead, inflow hydrographs are used to bring flow into the grid. The inflow hydrographs for Skunk Creek and Sonoran Wash were input at Grid Elements 17387 and 17418, respectively.

For grid elements on the outflow boundary, the outflow discharge was set equal to the sum of the inflow to those elements. The outflow discharge is then removed from the grid system and added to the outflow volume to maintain conservation of mass within the model.

5.13 CROSS-SECTION DESCRIPTION - FLO-2D MODEL

Cross-sections are defined in FLO-2D by specifying a series of consecutive grid elements. By defining one or more cross-sections, the outflow flood hydrographs, flow attenuation, and flow hydraulics can be analyzed. Cross-sections were defined for the inlet and outlet of each CAP Canal overchute structure. In addition, cross-sections were established east of the Sonoran Wash Overchute, west of the Skunk Creek Overchute, and parallel to Interstate Highway 17 to determine breakout flow magnitudes. Table 5-5 lists the seven outflow cross-sections defined in the model. See Plate 4 for cross-section locations.

TABLE 5-5: Outflow Cross-Section Summary

Direction of Flow (IFLO)	Number of Grid Elements (NNXSEC)	Grid Element Numbers* (NODX)
Cross Section West of the Skunk Creek Overchute (Section #1)		
South	3	1231, 1232, 1233
Cross Section at the Inlet of the Skunk Creek Overchute (Section #2)		
South	3	1235, 1236, 1237
Cross Section at the Outlet of the Skunk Creek Overchute (Section #3)		
South	3	1394, 1395, 1396
Cross Section at the Inlet of the Sonoran Wash Overchute (Section #4)		
Southwest	1	1310
Cross Section at the Outlet of the Sonoran Wash Overchute (Section #5)		
Southwest	1	1415
Full Cross Section West of the Skunk Creek Overchute (Section #6) **(This cross section stretches along Interstate 17 all the way to the Skunk Creek Overchute)**		
Southwest	25	326, 379, 432, 485, 538, 591, 592, 645, 698, 751, 804, 857, 910, 911, 964, 1017, 1070, 1123, 1124, 1177, 1178, 1231, 1232, 1233, 1234
Cross Section for flow to the southeast along the CAP Canal (Section #7)		
Southeast	6	1742, 1743, 1690, 1691, 1638, 1585

* Grid element numbers 1 – 1850 correspond to numbers 17001 – 18850 on Plate 4.

5.14 MODELING CONSIDERATIONS - FLO-2D MODEL

5.14.1 Supercritical Flow

Supercritical flow was not determined to be a flow condition for Sonoran Wash watercourse.

5.14.2 Bridges and Overchutes

There are no existing bridges crossing Sonoran Wash. However, there are two overchute structures at the CAP Canal that convey flow in Skunk Creek and Sonoran Wash across the canal. The canal embankment acts as a roadway crossing, blocking the floodplain flows during large events and forcing them to contract and pass through the overchute structures. Rating curves were established for these structures by modeling them with HEC-RAS. Critical depth was assumed at the overchute inlet. The HEC-RAS model was run at different flow rates to establish the depth versus flow area relationship. A zero-depth reference elevation of 1518.50 feet was used for both overchute structures.

The Sonoran Wash Overchute is 155 feet wide with 7.5-foot high sidewalls. Because of its orientation with the grid system, it could be modeled using one grid element for the inlet and one for the outlet. The Skunk Creek Overchute is 244 feet wide with 8.5-foot high sidewalls. However, because of its orientation with the grid system, it was modeled using three grid elements each for the inlet and outlet, and assuming an even flow distribution through the three pairs of elements.

Table 5-6 lists the rating curves used for the two overchute structures. Note that the three grid elements used to model the Skunk Creek Overchute have identical rating curves.

The FLO-2D output indicates that the water-surface elevations downstream of the overchute structures are less than, and the water-surface elevations upstream of the overchute structures are greater than, the critical depth elevation in the overchute for the 100-year discharge. This verifies that the flow passes through critical depth in the structure and confirms the assumption of inlet control used in the rating curve model.

TABLE 5-6: Rating Curves for CAP Canal Overchutes

Headwater Depth (feet)	Culvert Discharge (cfs)	Culvert Flow Area (sq. ft.)
Skunk Creek Overchute (Grid Elements 18288, 18289, and 18290)		
0	0	0
0.6	83.3	47.2
0.8	166.7	68.4
1.2	333.3	99.9
1.8	666.7	146.8
2.3	1,000	185.3
2.7	1,333.3	218.6
3.1	1,666.7	249.5
3.4	2,000	276.9
3.7	2,333.3	304
4.1	2,666.7	329.6
4.4	3,000	353.8
4.6	3,333.3	376.6
5.3	4,1667	431.3
5.9	5,000	481.6
6.5	5,833.3	529.1
7.1	6,666.7	574.6
7.6	7,500	617.5
8.1	8,333.3	659.2
8.6	9.166.7	700.3
9.1	10,000	738.3
Sonoran Wash Overchute (Grid Element 18310)		
0	0	0
0.76	250	118
1.1	500	170
1.6	1,000	248
2.36	2,000	366
2.98	3,000	462
3.53	4,000	547
4.03	5,000	625
4.49	6,000	696
4.92	7,000	763
5.34	8,000	828
5.74	9,000	890
6.11	10,000	948
6.84	12,000	1,061
7.52	14,000	1,166
8.16	16,000	1,265
8.77	18,000	1,359
9.36	20,000	1,451
9.94	22,000	1,541
10.5	24,000	1,628
11.06	26,000	1,711

5.14.3 Levees and Dikes

The levees for this study were analyzed by adjusting the ground points and not with the levee routine.

5.14.4 Islands

There are no islands delineated in the Sonoran Wash channel. However, the CAP Canal embankments rise above the 100-year water surface in some areas and are delineated as being out of the floodplain.

5.14.5 Flow Splits

The ponding and backwater effects caused by the CAP Canal embankment result in multiple flow breakouts from the Skunk Creek and Sonoran Wash channels. No special modeling techniques were necessary, because of the two-dimensional capabilities of the FLO-2D program. The location and magnitude of the breakout flows are discussed in Section 5.18.

5.15 FLOODWAY MODELING - FLO-2D MODEL

Since the portion of Sonoran Wash delineated by the FLO-2D model is essentially a ponding area, the floodway is considered to be coincident with the floodplain. No separate floodway analysis was conducted.

5.16 PROBLEMS ENCOUNTERED DURING THE STUDY - FLO-2D MODEL

No special problems were encountered during the study.

5.17 CALIBRATION - FLO-2D MODEL

There is no stream gage data for 100-year peak flows to calibrate hydraulic models.

5.18 HYDRAULIC ANALYSIS RESULTS - FLO-2D MODEL

The water-surface elevations predicted by the model indicate that during the 100-year event, breakout flows occur across Interstate 17, into the CAP Canal on both east and west sides of the Skunk Creek Overchute, into the CAP Canal on both sides of the Sonoran Wash Overchute, and along the upstream side of the CAP Canal embankment, southeast of the Sonoran Wash Overchute. Plate 5 shows where these breakouts are located. Also shown are the 100-year floodplain/floodway limits and the location of the proposed beginning cross-section for the HEC-RAS model.

The flow distribution during the 100-year event is summarized in Table 5-7, along with a comparison to the findings in a 1990 study by Coe & Van Loo, Floodplain Delineation Report, Skunk Creek Between Arizona Canal Diversion Channel & Central Arizona Project. In comparison to the Coe & Van Loo study, this analysis shows more breakout occurring along Interstate 17, more total flow through the overchutes, and flow continuing southeast along the CAP Canal.

TABLE 5-7: Breakout Locations and Peak Discharges

Location	100-Year Breakout Discharge (cfs)	Coe & Van Loo 100-Year Breakout Discharge (cfs)
West of the Skunk Creek Overchute	1,100	5,000
Across Interstate 17	6,400	3,000
East of the Skunk Creek Overchute	500	1,000
West of the Sonoran Wash Overchute	2,500	1,000
East of the Sonoran Wash Overchute	1,200	200
Flow to the Southeast along the CAP Canal	100	Not Reported
Overchutes		
Skunk Creek	18,500	*16,600
Sonoran Wash	6,100	*16,600
Total	36,400	26,800
Reported total in report	36,400	35,000

* Unclear if these are for both overchutes together or individually. We assumed combined since they are different sizes.

To determine the starting 100-year water-surface elevation for the HEC-RAS floodplain/floodway delineation, the maximum flow depth in the grid elements along the proposed beginning cross-section was added to the existing ground elevation. Since these elevations varied, an average was taken along the cross-section. Cross-section 0.92 was selected as the beginning cross-section for Sonoran Wash. The corresponding grid element numbers are 17466-17469 and 17523-17525. The average starting water-surface elevation for Cross-section 0.92 was calculated to be 1532.10 feet.

All input and output files for the FLO-2D model are included on a CD in Appendix H.

6.0 EROSION AND SEDIMENT TRANSPORT

An erosion and sediment transport analysis is not applicable to this study.

7.0 DRAFT FIS REPORT DATA

This section of the report present results of the hydrologic and hydraulic computer modeling results in FEMA format. Data presented are Summary of Discharges, Floodway data and Flood Profiles.

7.1 Summary of Discharges

Peak discharges utilized for the delineation of the 100-year floodplain and floodway are taken from hydrologic models. Peak discharges recorded in the model are rounded up to the nearest 50 cfs for discharges over 1000 cfs A summary of peak discharges utilized in the hydraulic model are listed in Table 7-1.

Table 7-1: FEMA Summary of Discharges

Flooding Source and Location	Drainage Area	Peak Discharges				Remarks [1]
		10-Year	50-Year	100-Year	500-Year	
Sonoran Wash	(Square Miles)	(cfs)	(cfs)	(cfs)	(cfs)	
At River Mile 3.70	2.57	NC	NC	3300	NC	Concentration Point C002L
At River Mile 3.73	4.99	NC	NC	6500	NC	Concentration Point C002
At River Mile 2.08	7.70	NC	NC	8400	NC	Concentration Point C003
At River Mile 0.92	11.11	NC	NC	9700	NC	Concentration Point C007
At River Mile 0.52	11.11	NC	NC	9700	NC	Concentration Point C007

NC = Not Calculated

[1] Reference to HEC-1 Computer Model

7.2 Floodway Data

Floodway modeling results for Sonoran Wash are listed in Table 7-2.

Table 7-2: Floodway Summary Table

Floodway Source		Floodway			Base Flood Elevations			
Cross Section	Distance	Width	Area	Mean Velocity	Regulatory	Without Floodway	With Floodway	Increase
Sonoran Wash	(miles)	(ft)	(sq. ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
RS 0.92	0.92	692.1	3542.5	2.7	1532.1	1532.1	1533.1	1.0
RS 1.00	1.00	378.8	1396.6	7.0	1533.1	1533.1	1533.4	0.3
RS 1.09	1.09	394.8	1391.1	7.0	1535.7	1535.7	1536.5	0.8
RS 1.15	1.15	428.6	1641.3	5.9	1537.9	1537.9	1538.9	1.0
RS 1.21	1.21	557.9	1695.2	5.7	1539.6	1539.6	1540.6	1.0
RS 1.25	1.25	543.7	2019.7	4.8	1540.9	1540.9	1541.8	0.9
RS 1.29	1.29	520.1	1682.2	5.8	1541.6	1541.6	1542.5	1.0
RS 1.33	1.33	555.4	1647.9	5.9	1542.8	1542.8	1543.6	0.8
RS 1.38	1.38	569.9	1756.9	5.5	1544.0	1544.0	1544.9	0.9
RS 1.48	1.48	399.1	1293.7	7.5	1547.0	1547.0	1547.9	0.9
RS 1.56	1.56	377.3	1627.1	6.0	1550.1	1550.1	1551.0	0.9
RS 1.65	1.65	301.9	1093.7	8.9	1552.9	1552.9	1553.2	0.3
RS 1.72	1.72	295.3	1437.9	6.8	1555.1	1555.1	1556.1	1.0
RS 1.77	1.77	345.2	1392.5	7.0	1556.4	1556.4	1557.2	0.7
RS 1.84	1.84	360.0	1637.2	5.9	1558.4	1558.4	1559.3	1.0
RS 1.90	1.90	619.9	1907.2	5.1	1560.2	1560.2	1560.9	0.7
RS 1.99	1.99	362.3	1509.9	6.4	1563.3	1563.3	1563.4	0.1
RS 2.08	2.08	481.9	1721.6	4.9	1565.6	1565.6	1566.5	0.9
RS 2.13	2.13	392.0	1302.9	6.5	1567.2	1567.2	1568.0	0.9
RS 2.19	2.19	254.3	1332.2	6.3	1570.1	1570.1	1570.1	0.0
RS 2.28	2.28	163.7	918.6	9.1	1572.0	1572.0	1572.9	0.9
RS 2.35	2.35	206.2	1103.3	7.6	1574.9	1574.9	1575.8	0.9
RS 2.41	2.41	290.0	1451.1	5.8	1576.7	1576.7	1577.6	0.9
RS 2.46	2.46	225.8	984.4	8.5	1577.7	1577.7	1578.7	1.0
RS 2.52	2.52	312.6	1757.0	4.8	1580.7	1580.7	1581.4	0.7
RS 2.58	2.58	208.4	1024.2	8.2	1581.6	1581.6	1582.1	0.5
RS 2.64	2.64	322.4	1358.4	6.2	1583.9	1583.9	1584.7	0.8
RS 2.69	2.69	525.9	2013.6	4.2	1585.4	1585.4	1586.2	0.8
RS 2.73	2.73	230.0	976.2	6.7	1586.2	1586.2	1586.7	0.4
RS 2.77	2.77	206.6	750.6	8.7	1587.8	1587.8	1588.3	0.5
RS 2.84	2.84	227.0	1108.4	5.9	1590.7	1590.7	1591.7	1.0

Table 7-2, continued

Floodway Summary Table

Floodway Source		Floodway			Base Flood Elevations			
Cross Section	Distance	Width	Area	Mean Velocity	Regulatory	Without Floodway	With Floodway	Increase
Sonoran Wash	(miles)	(ft)	(sq. ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
RS 2.88	2.88	244.6	807.4	8.1	1592.6	1592.6	1593.4	0.8
RS 2.93	2.93	208.8	1059.3	6.1	1595.6	1595.6	1596.4	0.8
RS 2.97	2.97	186.7	727.0	8.9	1597.3	1597.3	1597.6	0.3
RS 3.05	3.05	158.0	948.2	6.9	1600.9	1600.9	1601.6	0.7
RS 3.10	3.10	144.5	729.4	8.9	1602.1	1602.1	1602.7	0.6
RS 3.15	3.15	159.8	958.4	6.8	1604.1	1604.1	1605.1	1.0
RS 3.24	3.24	167.5	809.8	8.0	1607.2	1607.2	1607.9	0.7
RS 3.31	3.31	201.1	994.9	6.5	1610.2	1610.2	1611.2	1.0
RS 3.40	3.40	139.8	849.4	7.7	1612.7	1612.7	1613.7	0.9
RS 3.46	3.46	114.4	733.1	8.9	1614.4	1614.4	1615.4	1.0
RS 3.54	3.54	168.1	953.4	6.8	1617.9	1617.9	1618.7	0.8
RS 3.61	3.61	121.8	663.5	9.8	1620.2	1620.2	1620.6	0.4
RS 3.65	3.65	200.0	1183.6	5.5	1622.3	1622.3	1623.2	0.9
RS 3.70	3.70	165.0	829.0	4.0	1623.3	1623.3	1624.2	0.9
RS 3.73	3.73	183.6	700.8	4.7	1624.0	1624.0	1624.8	0.8
RS 3.76	3.76	172.1	513.8	6.4	1624.9	1624.9	1625.7	0.8
RS 3.79	3.79	128.7	503.5	6.6	1626.2	1626.2	1627.2	1.0
RS 3.84	3.84	84.8	408.0	8.1	1628.2	1628.2	1629.2	1.0

7.3 Flood Profiles

FLOOD PROFILES

SONORAN WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF PHOENIX

ELEVATION IN FEET (NGVD)

1640
1620
1600
1580
1560
1540
1520
1500
1480
1460

CONFLUENCE WITH SKUNK CREEK

BEGIN DETAIL STUDY (FLO-2D) MODEL

CAP CANAL

BEGIN HEC-RAS MODEL

0.52
0.92
1.15
1.21
1.29

LEGEND

100 - YEAR FLOOD

STREAM BED

0.238 CROSS SECTION LOCATION

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3

STREAM DISTANCE IN MILES

Scale:
Horizontal: 1" = 0.1 Mile
Vertical: 1"=20'

FLOOD PROFILES

SONORAN WASH

ELEVATION IN FEET (NGVD)

1640
1620
1600
1580
1560
1540
1520
1500
1480
1460

1.38
1.48
1.56
1.65
1.72
1.77
1.84
1.90
1.99
2.08
2.13
2.19
2.28
2.35
2.41
2.46
2.52
2.58

LEGEND

100 - YEAR FLOOD

STREAM BED

0.238 CROSS SECTION LOCATION

1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6

STREAM DISTANCE IN MILES

Scale:
Horizontal: 1" = 0.1 Mile
Vertical: 1"=20'

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF PHOENIX

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2001-07-03 1 M By: ndieter

FLOOD PROFILES

SONORAN WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF PHOENIX

ELEVATION IN FEET (NGVD)

1640
1620
1600
1580
1560
1540
1520
1500
1480
1460

END OF DETAIL STUDY

2.64 2.73 2.84 2.93 3.05 3.15 3.24 3.31 3.40 3.46 3.54 3.61 3.70 3.76 3.84

2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9

STREAM DISTANCE IN MILES

LEGEND

100 - YEAR FLOOD

STREAM BED

0.238 CROSS SECTION LOCATION

Scale:
Horizontal: 1" = 0.1 Mile
Vertical: 1"=20'

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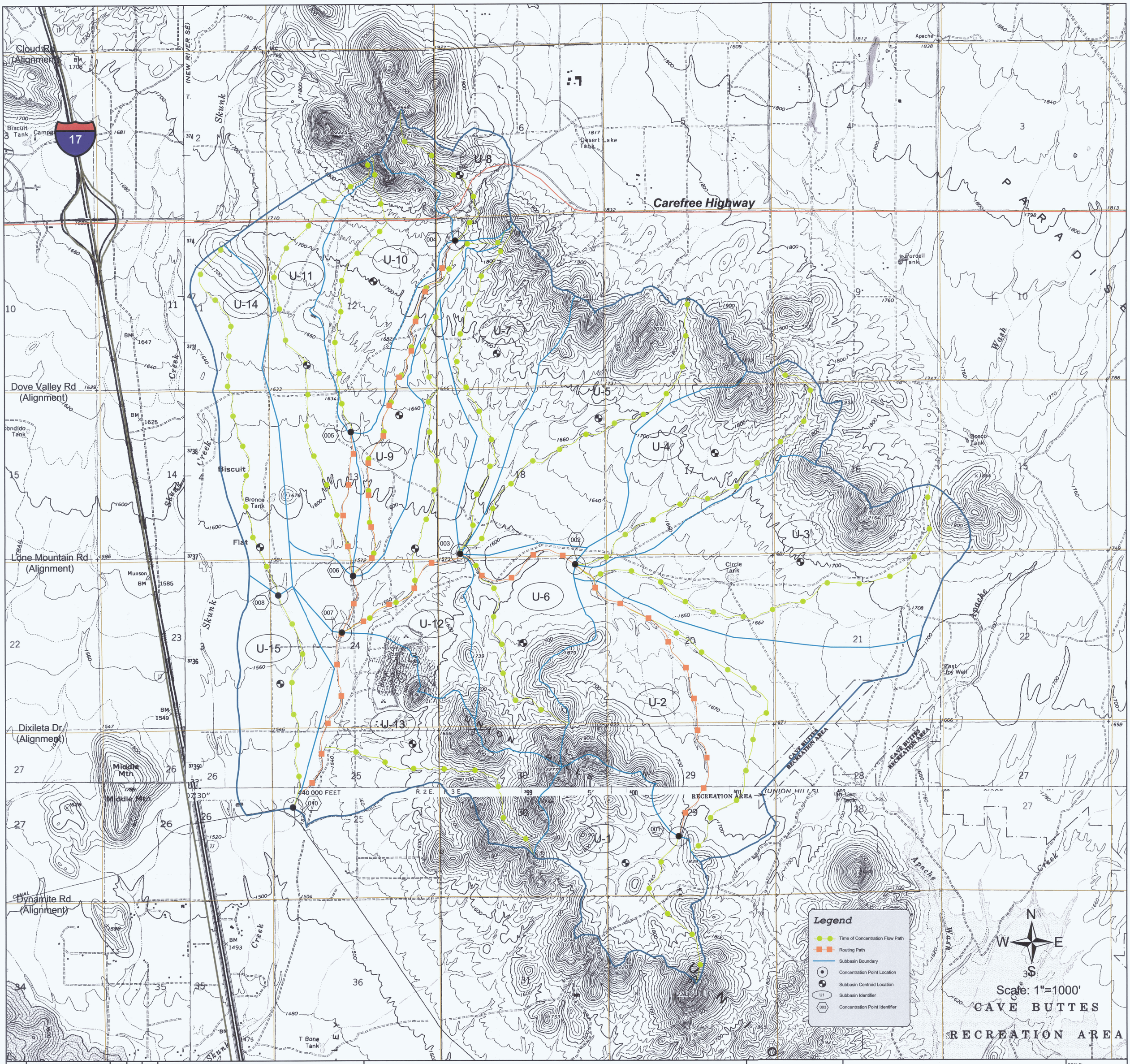
2001-07-03 ...M By: ndieter

8.0 DATA COLLECTION/REFERENCES

Data collection of the Sonoran Wash Floodplain and Floodway delineation was conducted as part of the Skunk Creek Watercourse Master Plan. Results of the data collection effort are located in the report entitled Skunk Creek Watercourse Master Plan-Data Collection Report – Attachment 1.

References utilized in the study are referenced in the body of the report.



No.	Revisions	Date:	By:	Chk:

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
501 North 44th Street, Suite 125, Phoenix, AZ 85008
(602) 629-1100 FAX (602) 629-1186

SONORAN WASH
FLOODPLAIN/FLOODWAY DELINEATION
FCD 99-23

JOB NO.	23500002
DESIGNED BY:	TRL
DRAWN BY:	CBC
CHECKED BY:	JAD
APPROVED BY:	TRL
DATE:	06/06/01

PLATE 1
WATERSHED MAP

SCALE:	1"=1000'
DRAWING NO.	
SHEET NO.	1
OF:	1

Cloud Rd
(Alignment)

17

Carefree Highway

Dove Valley Rd
(Alignment)

Lone Mountain Rd
(Alignment)

Dixileta Dr
(Alignment)

Dynamite Rd
(Alignment)

U-1
U-2
U-3
U-4
U-5
U-6
U-7
U-8
U-9
U-10
U-11
U-12
U-13
U-14
U-15

001
002
003
004
005
006
007
008
010

Legend

SOILTYPE (XKSAT)

- 100 (0.40)
- 110 (0.13)
- 112 (0.39)
- 118 (0.42)
- 12 (0.01)
- 123 (0.37)
- 124 (0.39)
- 13 (0.01)
- 21 (0.38)
- 23 (0.01)
- 3 (0.58)
- 44 (0.03)
- 52 (0.16)
- 55 (0.27)
- 68 (0.63)
- 98 (0.37)

N
W E
S

Scale: 1"=1000'

No.	Revisions	Date:	By:	Chk:

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
501 North 44th Street, Suite 125, Phoenix, AZ 85008
(602) 629-1100 FAX (602) 629-1186

SONORAN WASH
FLOODPLAIN/FLOODWAY DELINEATION
FCD 99-23

JOB NO.	23500002
DESIGNED BY:	TRL
DRAWN BY:	CBC
CHECKED BY:	JAD
APPROVED BY:	TRL
DATE:	06/06/01

PLATE 2
SOILS MAP

SCALE:	1"=1000'
DRAWING NO.	
SHEET NO.	OF:
1	1

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	M12.0 + M13.0
CROSS SECTION	A 0.10 — FP= 1888.74 (FLOODPLAIN WATER SURFACE ELEVATION); FW= 1889.54 (ENCROACHED WATER SURFACE ELEVATION); Q = CFS (100 YEAR DISCHARGE); FEMA CROSS SECTION DESIGNATION; CROSS SECTION RIVER MILE DESIGNATION
ELEVATION REFERENCE MARK	ERM XXX
BASE FLOOD ELEVATIONS	1221
ZONE DESIGNATIONS	ZONE AE
SECTION LINES	
CORPORATE BOUNDARIES	

ELEVATION REFERENCE MARKS

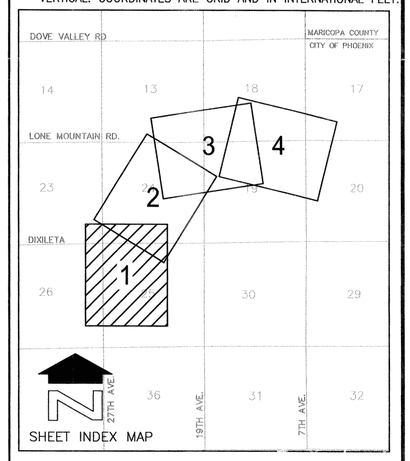
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM 5	1542.05	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.2 FT NORTH OF A STEEL "T" POST, 19 FT SOUTH OF THE ℄ OF AN 8 FT WIDE E/W DIRT ROAD, 56 FT NORTH OF THE ℄ OF A 12 FT WIDE E/W DIRT ROAD. N: 1002279.603536 E: 641483.706425
ERM 6	1538.25	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.4 FT NORTH OF A STEEL "T" POST AND .33 FT NORTHEAST OF A MULTI-ARMED SAGUARO CACTUS. N: 1000261.013195 E: 640965.392187
ERM 7	1526.68	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 2.2 FT NORTH OF A STEEL "T" POST, 22 FT SOUTH OF THE ℄ OF AN 8 FT WIDE SE/NW DIRT ROAD, 53 FT WEST OF A N/S FENCE LINE (T POSTS NO WIRE) AND, 275± FT EAST OF THE EASTERN TOP EDGE OF THE CAP CANAL LEVEE. N: 998471.031574 E: 641005.539727

NOTES

1- THE HYDRAULIC BASE LINE IS CROSS SECTION STATION 10,000 UNLESS NOTED OTHERWISE

2- COORDINATES ARE IN NAD 1983 HORIZONTAL AND NGVD 1929 VERTICAL. COORDINATES ARE GRID AND IN INTERNATIONAL FEET.



200' 0' 200' 400'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATE: JULY 20, 1999

NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

PLATE 3
SONORAN WASH
FLOODPLAIN WORK MAPS
F.C.D. CONTRACT NO. 99-23

Registered Professional Engineer (Civil) CERTIFICATE NO. 31690 PATRICK J. ELLISON Date Signed 8/24/01 ARIZONA U.S.A.

Stantec

	BY	DATE
DESIGN	---	---
DESIGN CHK.	---	---
PLANS	NKD	8/01
PLANS CHK.	PJE	8/01

SHEET 1 OF 4

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

AERIAL MAPPING COMPANY PHOTOGRAMMETRY JULY 20, 1999.

GROUND CONTROL SURVEY DATA PROVIDED BY TETRA TECH INC.

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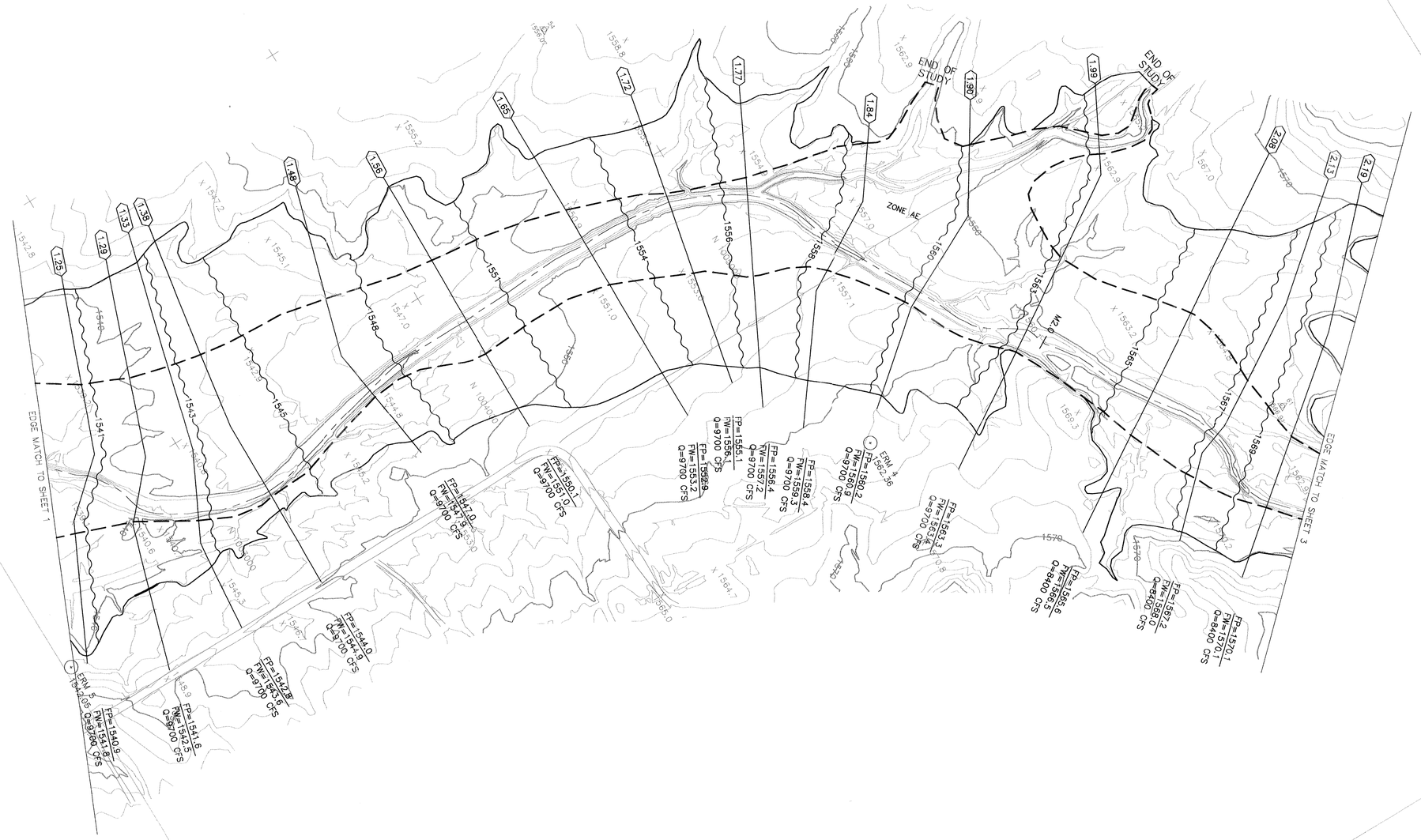


LEGEND

- 100-YR FLOODPLAIN BOUNDARY
- FLOODWAY BOUNDARY
- HYDRAULIC BASE LINE WITH RIVER MILE — M12.0 — M13.0
- CROSS SECTION — A 0.10 — FEMA CROSS SECTION DESIGNATION; CROSS SECTION DESIGNATION; FP= 1888.74 FLOODPLAIN WATER SURFACE ELEVATION; FW= 1889.54 ENCROACHED WATER SURFACE ELEVATION; Q = CFS 100 YEAR DISCHARGE
- ELEVATION REFERENCE MARK — ERM XXX
- BASE FLOOD ELEVATIONS — 1221
- ZONE DESIGNATIONS — ZONE AE
- SECTION LINES
- CORPORATE BOUNDARIES

ELEVATION REFERENCE MARKS

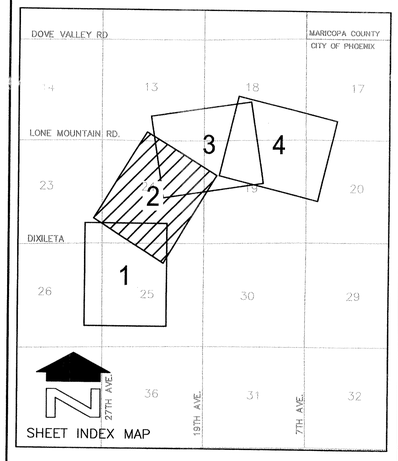
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM 4	1562.36	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.6 FT NORTH OF A STEEL "T" POST, 42 FT EAST OF THE ℄ OF A 12 FT WIDE N/S DIRT ROAD AND 335± FT NNW OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1005114.697250 E: 642265.756249
ERM 5	1542.05	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.2 FT NORTH OF A STEEL "T" POST, 19 FT SOUTH OF THE ℄ OF AN 8 FT WIDE E/W DIRT ROAD, 56 FT NORTH OF THE ℄ OF A 12 FT WIDE E/W DIRT ROAD. N: 1002279.603536 E: 641483.706425

NOTES

1- THE HYDRAULIC BASE LINE IS CROSS SECTION STATION 10,000 UNLESS NOTED OTHERWISE

2- COORDINATES ARE IN NAD 1983 HORIZONTAL AND NGVD 1929 VERTICAL. COORDINATES ARE GRID AND IN INTERNATIONAL FEET.



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

PLATE 3
SONORAN WASH
FLOODPLAIN WORK MAPS
F.C.D. CONTRACT NO. 99-23

Registered Professional Engineer (Civil) — CERTIFICATE NO. 31680 — PATRICK J. ELLISON — Date Registered 12-31-10 — ARIZONA U.S.A.

Stantec

	BY	DATE
DESIGN	---	---
DESIGN CHK.	---	---
PLANS	NKD	8/01
PLANS CHK.	PJE	8/01

SHEET 2 OF 4

200' 0' 200' 400'
SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATE: JULY 20, 1999

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2 'CONTOUR INTERVALS.

AERIAL MAPPING COMPANY PHOTOGRAMMETRY JULY 20, 1999.

GROUND CONTROL SURVEY DATA PROVIDED BY TETRA TECH INC.

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LEGEND

- 100–YR FLOODPLAIN BOUNDARY
- FLOODWAY BOUNDARY
- HYDRAULIC BASE LINE WITH RIVER MILE — M12.0 + M13.0
- CROSS SECTION — A 0.10 — FP= 1888.74 (FLOODPLAIN WATER SURFACE ELEVATION) — FW= 1889.54 (ENCROACHED WATER SURFACE ELEVATION) — Q = CFS (100 YEAR DISCHARGE) — FEMA CROSS SECTION DESIGNATION — CROSS SECTION RIVER MILE DESIGNATION
- ELEVATION REFERENCE MARK — ERM XXX
- BASE FLOOD ELEVATIONS — 1221
- ZONE DESIGNATIONS — ZONE AE
- SECTION LINES
- CORPORATE BOUNDARIES

ELEVATION REFERENCE MARKS

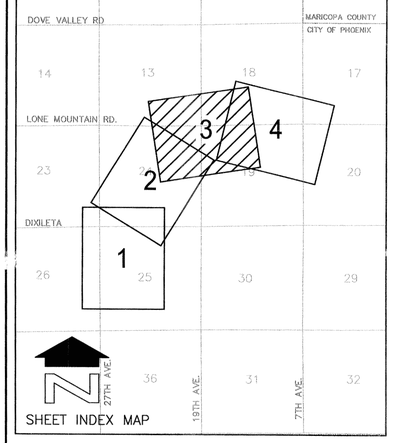
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM 2	1613.81	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE, 1.4 FT NORTH OF A STEEL "T" POST, 27 FT ENE OF A SINGLE SAGUARO CACTUS, 44.1 FT SOUTH OF THE ℄ OF AN 8 FT WIDE DIRT ROAD AND, 1.1± MILES EAST OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1006383.449870 E: 647183.030222
ERM 3	1584.48	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE, 1.3 FT NORTH OF A STEEL "T" POST, 11.7 FT NORTH OF THE ℄ OF AN 8 FT WIDE SW/NE DIRT ROAD, 3.2 FT SW OF A MULTI–ARMED SAGUARO CACTUS AND, 0.6± MILES EAST OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1006978.382064 E: 644162.738240
ERM 4	1562.36	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE, 1.6 FT NORTH OF A STEEL "T" POST, 42 FT EAST OF THE ℄ OF A 12 FT WIDE N/S DIRT ROAD AND 335± FT NNW OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1005114.697250 E: 642265.756249

NOTES

1– THE HYDRAULIC BASE LINE IS CROSS SECTION STATION 10,000 UNLESS NOTED OTHERWISE

2– COORDINATES ARE IN NAD 1983 HORIZONTAL AND NGVD 1929 VERTICAL. COORDINATES ARE GRID AND IN INTERNATIONAL FEET.



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

PLATE 3
SONORAN WASH
FLOODPLAIN WORK MAPS
F.C.D. CONTRACT NO. 99–23

200' 0' 200' 400'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATE: JULY 20, 1999

Registered Professional Engineer (State of Arizona) CERTIFICATE NO. 31680 PATRICK J. ELLISON 6/30/02 ARIZONA U.S.A.

Stantec

	BY	DATE
DESIGN	–	–
DESIGN CHK.	–	–
PLANS	NKD	8/01
PLANS CHK.	PJE	8/01

SHEET 3 OF 4

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

AERIAL MAPPING COMPANY PHOTOGRAMMETRY JULY 20, 1999.

GROUND CONTROL SURVEY DATA PROVIDED BY TETRA TECH INC.

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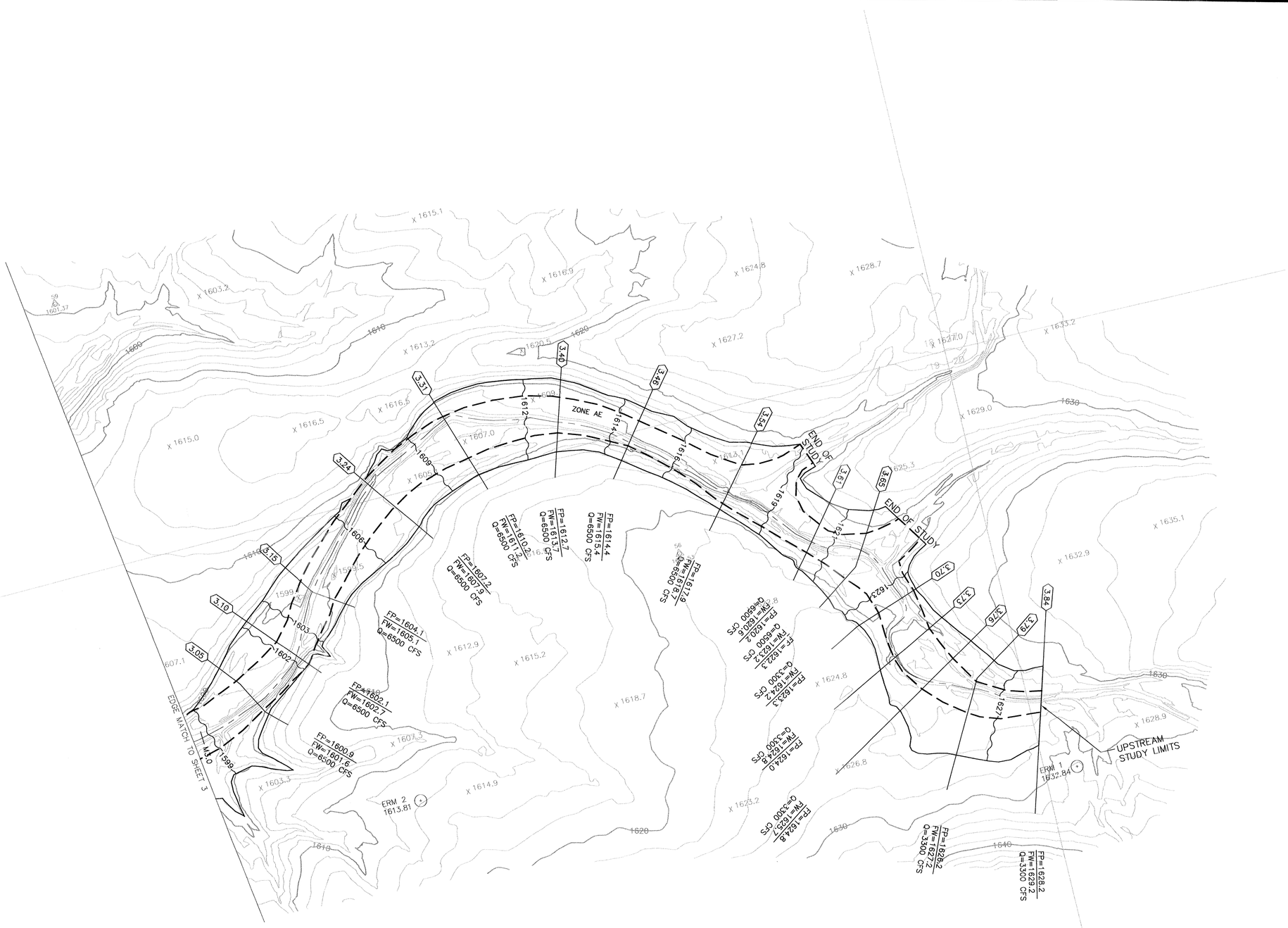


LEGEND

- 100–YR FLOODPLAIN BOUNDARY
- FLOODWAY BOUNDARY
- HYDRAULIC BASE LINE WITH RIVER MILE — M12.0 — M13.0
- CROSS SECTION — (A) 0.10 — FP= 1888.74 (FLOODPLAIN WATER SURFACE ELEVATION) — FW= 1889.54 (ENCROACHED WATER SURFACE ELEVATION) — Q = CFS (100 YEAR DISCHARGE) — FEMA CROSS SECTION DESIGNATION — CROSS SECTION DESIGNATION
- ELEVATION REFERENCE MARK — ERM XXX
- BASE FLOOD ELEVATIONS — 1221
- ZONE DESIGNATIONS — ZONE AE
- SECTION LINES
- CORPORATE BOUNDARIES

ELEVATION REFERENCE MARKS

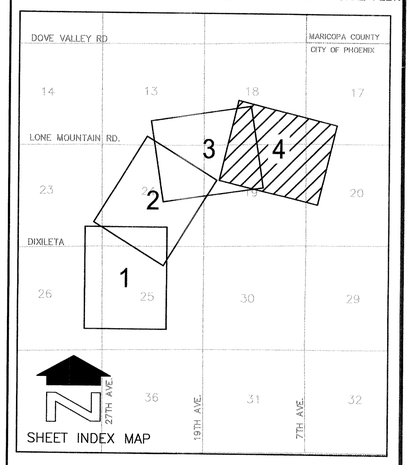
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
ERM 1	1632.84	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.3 FT NORTH OF STEEL "T" POST, 26.0 FT SOUTH OF THE ℄ OF AN 8' WIDE EAST/WEST DIRT ROAD, AND 1.6± MILES EAST OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1005919.804995 E: 649757.329855
ERM 2	1613.81	3" BRASS CAP, FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, SET IN CONCRETE. 1.4 FT NORTH OF A STEEL "T" POST, 27 FT ENE OF A SINGLE SAGUARO CACTUS, 44.1 FT SOUTH OF THE ℄ OF AN 8 FT WIDE DIRT ROAD AND, 1.1± MILES EAST OF THE NORTHWEST CORNER OF THE LANDSCAPE MATERIALS GRAVEL PIT. N: 1006383.449870 E: 647183.030222

NOTES

1– THE HYDRAULIC BASE LINE IS CROSS SECTION STATION 10,000 UNLESS NOTED OTHERWISE

2– COORDINATES ARE IN NAD 1983 HORIZONTAL AND NGVD 1929 VERTICAL. COORDINATES ARE GRID AND IN INTERNATIONAL FEET.



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

PLATE 3
SONORAN WASH
FLOODPLAIN WORK MAPS
F.C.D. CONTRACT NO. 99–23

Registered Professional Engineer (Civil) CERTIFICATE NO. 31680 PATRICK J. ELLISON 07-31-01 ARIZONA U.S.A.

Stantec

	BY	DATE
DESIGN	—	—
DESIGN CHK.	—	—
PLANS	NKD	8/01
PLANS CHK.	PJE	8/01

SHEET 4 OF 4

200' 0' 200' 400'
SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATE: JULY 20, 1999

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

AERIAL MAPPING COMPANY PHOTOGRAMMETRY JULY 20, 1999.

GROUND CONTROL SURVEY DATA PROVIDED BY TETRA TECH INC.

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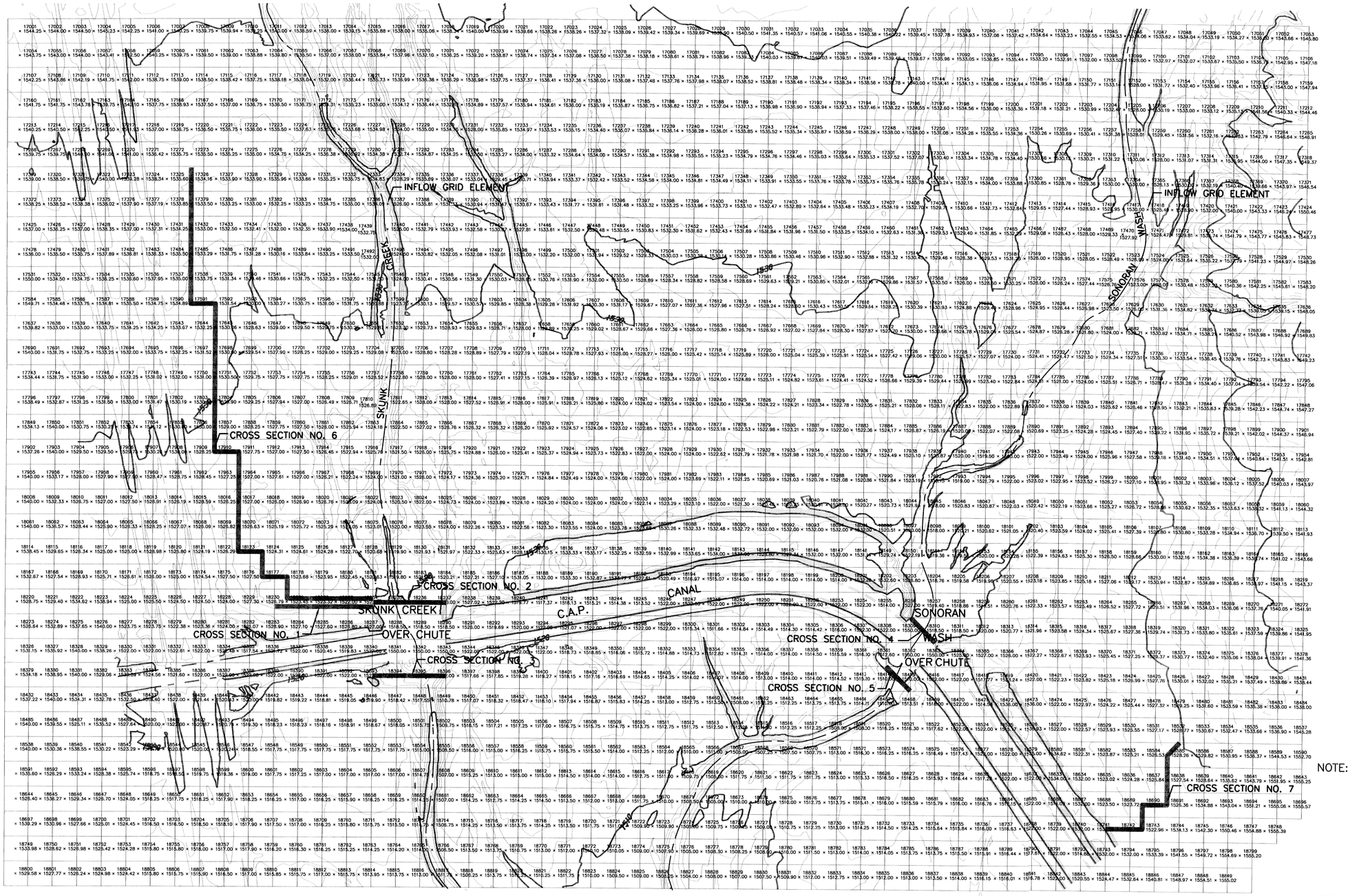


GRAPHIC SCALE

0 200 300 400

(IN FEET)

1 inch = 200 ft.

NOTE: GRID POINT NUMBERS RANGE FROM 17,001 TO 18,849 FOR EXISTING CONDITION. THESE POINT NUMBERS VARY BASED ON WHICH MODEL IS BEING ANALYZED.

Two working days before you dig CALL FOR THE BLUE STAKES 263-1100 Blue Stake Center CALL COLLECT

NO.	REVISIONS	DATE	BY	CHK.

FLO2DEXA.DWG

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
4801 E. Washington, Suite 260, Phoenix, AZ 85034
(602) 682-3300 FAX (602) 244-1154

SKUNK CREEK WATER COURSE MASTER PLAN

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, NO. FCD 99-23

JOB NO.	2350.0002
DESIGNED BY:	JAD
DRAWN BY:	DJS
CHECKED BY:	JAD
APPROVED BY:	TRL
DATE:	7/18/01

PLATE 4
GRID/CROSS SECTION LOCATION MAP

SCALE:	HORIZ: 1"= 200'
	CONT. INTERVAL = 2'
DRAWING NO.	EXA
SHEET NO.	1
OF:	1

GRAPHIC SCALE

0 200 300 400

(IN FEET)

1 inch = 200 ft.

Two working days before you dig
CALL FOR THE BLUE STAKES
263-1100
Blue Stake Center
CALL COLLECT

NO.	REVISIONS	DATE	BY	CHK.

FLO2DEXB.DWG

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
4801 E. Washington, Suite 260, Phoenix, AZ 85034
(602) 682-3300 FAX (602) 244-1164

SKUNK CREEK WATER COURSE MASTER PLAN

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, NO. FCD 99-23

JOB NO.	2350.0002
DESIGNED BY:	JAD
DRAWN BY:	DJS
CHECKED BY:	JAD
APPROVED BY:	TRL
DATE:	7/18/01

PLATE 5
FLO-2D MODEL
EXISTING CONDITIONS

SCALE: HORIZ: 1"= 200'
CONT. INTERVAL = 2'

DRAWING NO. **EXB**

SHEET NO. **1** OF: **1**

APPENDIX A

HEC-1 INPUT PARAMETER DATA

RAINFALL LOSS CALCULATION SHEETS

Table A-1
DTHETA & PSIF Lookup Table
Using XKSAT

Note:
The values in this table are taken from Figure 4.3 of the FCDMC Drainage Design Manual.

XKSAT in/hr (1)	DTHETA Dry (2)	DTHETA Normal (3)	PSIF inches (4)
0.01	0.150	0.050	12.400
0.02	0.193	0.100	11.200
0.03	0.223	0.127	10.100
0.04	0.248	0.150	9.700
0.05	0.269	0.150	8.800
0.06	0.287	0.150	8.400
0.07	0.304	0.150	8.000
0.08	0.319	0.150	7.600
0.09	0.332	0.150	7.300
0.10	0.345	0.150	7.000
0.11	0.357	0.169	6.800
0.12	0.369	0.189	6.600
0.13	0.380	0.209	6.400
0.14	0.390	0.229	6.200
0.15	0.400	0.250	6.000
0.16	0.393	0.250	5.800
0.17	0.387	0.250	5.700
0.18	0.381	0.250	5.600
0.19	0.376	0.250	5.400
0.20	0.371	0.250	5.300
0.21	0.366	0.250	5.200
0.22	0.362	0.250	5.100
0.23	0.358	0.250	5.000
0.24	0.354	0.250	4.900
0.25	0.350	0.250	4.800
0.26	0.350	0.250	4.700
0.27	0.350	0.250	4.650
0.28	0.350	0.250	4.600
0.29	0.350	0.250	4.550
0.30	0.350	0.250	4.500
0.31	0.350	0.250	4.450
0.32	0.350	0.250	4.400
0.33	0.350	0.250	4.350
0.34	0.350	0.250	4.300
0.35	0.350	0.250	4.250
0.36	0.350	0.250	4.200
0.37	0.350	0.250	4.150
0.38	0.350	0.250	4.100
0.39	0.350	0.250	4.000
0.40	0.350	0.250	3.950

Table A-1
DTHETA & PSIF Lookup Table
Using XKSAT

XKSAT in/hr (1)	DTHETA Dry (2)	DTHETA Normal (3)	PSIF inches (4)
0.41	0.350	0.251	3.915
0.42	0.350	0.252	3.880
0.43	0.350	0.253	3.845
0.44	0.350	0.254	3.810
0.45	0.350	0.255	3.775
0.46	0.350	0.256	3.740
0.47	0.350	0.257	3.705
0.48	0.350	0.258	3.670
0.49	0.350	0.259	3.635
0.50	0.350	0.259	3.600
0.51	0.350	0.260	3.575
0.52	0.350	0.261	3.550
0.53	0.350	0.262	3.525
0.54	0.350	0.263	3.500
0.55	0.350	0.264	3.475
0.56	0.350	0.264	3.450
0.57	0.350	0.265	3.425
0.58	0.350	0.266	3.400
0.59	0.350	0.267	3.375
0.60	0.350	0.267	3.350
0.61	0.350	0.268	3.330
0.62	0.350	0.269	3.310
0.63	0.350	0.270	3.290
0.64	0.350	0.270	3.270
0.65	0.350	0.271	3.250
0.66	0.350	0.272	3.230
0.67	0.350	0.272	3.210
0.68	0.350	0.273	3.190
0.69	0.350	0.274	3.170
0.70	0.350	0.274	3.150
0.71	0.350	0.275	3.130
0.72	0.350	0.276	3.110
0.73	0.350	0.276	3.090
0.74	0.350	0.277	3.070
0.75	0.350	0.277	3.050
0.76	0.350	0.278	3.030
0.77	0.350	0.279	3.010
0.78	0.350	0.279	2.990
0.79	0.350	0.280	2.970
0.80	0.350	0.280	2.950

Table A-1
DTHETA & PSIF Lookup Table
Using XKSAT

XKSAT in/hr (1)	DTHETA Dry (2)	DTHETA Normal (3)	PSIF inches (4)
0.81	0.350	0.281	2.935
0.82	0.350	0.282	2.920
0.83	0.350	0.282	2.905
0.84	0.350	0.283	2.890
0.85	0.350	0.283	2.875
0.86	0.350	0.284	2.860
0.87	0.350	0.284	2.845
0.88	0.350	0.285	2.830
0.89	0.350	0.285	2.815
0.90	0.350	0.286	2.800
0.91	0.350	0.287	2.785
0.92	0.350	0.287	2.770
0.93	0.350	0.288	2.755
0.94	0.350	0.288	2.740
0.95	0.350	0.289	2.725
0.96	0.350	0.289	2.710
0.97	0.350	0.290	2.695
0.98	0.350	0.290	2.680
0.99	0.350	0.291	2.665
1.00	0.350	0.291	2.650
1.01	0.350	0.292	2.640
1.02	0.350	0.292	2.630
1.03	0.350	0.292	2.620
1.04	0.350	0.293	2.610
1.05	0.350	0.293	2.600
1.06	0.350	0.294	2.590
1.07	0.350	0.294	2.580
1.08	0.350	0.295	2.570
1.09	0.350	0.295	2.560
1.10	0.350	0.296	2.550
1.11	0.350	0.296	2.540
1.12	0.350	0.297	2.530
1.13	0.350	0.297	2.520
1.14	0.350	0.297	2.510
1.15	0.350	0.298	2.500
1.16	0.350	0.298	2.490
1.17	0.350	0.299	2.480
1.18	0.350	0.299	2.470
1.19	0.350	0.300	2.460
1.20	0.350	0.300	2.450

Sonoran Wash Table A-2
Rainfall loss characteristics for each soil class in its natural condition

Soil Map Unit (1)	Bare Ground XKSAT in/hr (2)	Natural				
		RTIMP % (3)	Veg. Cover % (4)	Slope Range % (5)	Terrain Class (6)	IA in (7)
3	0.58	0	30	0-3	Rangeland	0.35
12	0.01	0	35	1-8	Rangeland	0.35
13	0.01	0	30	0-3	Rangeland	0.35
21	0.38	0	10	0-3	Rangeland	0.35
23	0.01	0	25	0-3	Rangeland	0.35
44	0.03	0	30	1-8	Rangeland	0.35
52	0.16	20	30	7-55	Mountain	0.25
55	0.27	0	25	0-3	Rangeland	0.35
68	0.63	0	10	1-7	Rangeland	0.35
98	0.37	0	15	1-10	Rangeland	0.35
100	0.40	20	25	20-65	Mountain	0.25
110	0.13	0	10	1-7	Rangeland	0.35
112	0.39	0	25	0-3	Rangeland	0.35
118	0.42	0	30	0-3	Rangeland	0.35
123	0.37	0	20	1-20	Hillslope	0.15
124	0.39	0	18	0-3	Rangeland	0.35

Table A-3

Rainfall loss characteristics for each land-use class in its developed condition

Land Use ID (1)	Developed		
	RTIMP % (2)	Veg. Cover % (3)	IA in (4)
I	55	60	0.15
C	80	75	0.10
MFR	45	50	0.25
VLDR	10	30	0.30
LDR	20	50	0.30
MDR	30	50	0.25
HDR	65	50	0.25
N	---	---	---

Land-Use	Description
C	Mixed Use
C	Business Park
C	Community Retail Center (100,000 to 500,000 sq.ft.)
C	Transportation
C	Public Facility
C	Neighborhood Retail Center (<100,000 sq.ft.)
C	Hotel, Motel or Resort
C	Office
C	Institutional
HDR	High Density Residential (>15 du/acre)
I	Airport
I	Industrial
LDR	Large Lot Residential (>1 and <=2 du/acre)
MDR	Small Lot Residential (>2 and <=5 du/acre)
MFR	Educational
MFR	Medium Density Residential (>5 and <=15 du/acre)
N	Recreational Open Space
N	Vacant
N	Water
N	Dedicated or Non-developable Open Space
VLDR	Rural (1 dwelling unit per acre or less)
VLDR	Agriculture

Sonoran Wash Table A-4
Worksheet
Soils, Vegetation Cover, and RTIMP for rainfall losses by Green & Ampt method for each subbasin

U1	Soil Map Unit No. ...	21	44	52	0	0	0	0	0	0	0	0
	Sub-Area (acres) ...	35.0	153.3	329.2	---	---	---	---	---	---	---	---
	XKSAT (bare ground) ...	0.38	0.03	0.16	---	---	---	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	20%	---	---	---	---	---	---	---	---
	Vegetation Cover ...	10%	30%	30%	---	---	---	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.25	---	---	---	---	---	---	---	---

XKSAT log avg (bare ground) = 0.10
PSIF = 7.00
DTHETA (Dry) = 0.35
DTHETA (Normal) = 0.15
RTIMP avg. = 12.72 %
Veg. Cover avg. = 28.65 %
IA avg. = 0.29

Total Sub Basin Area in sq. miles = 0.8086

U2	Soil Map Unit No. ...	12	13	23	44	52	0	0	0	0	0	0
	Sub-Area (acres) ...	371.1	77.4	273.1	64.0	339.0	---	---	---	---	---	---
	XKSAT (bare ground) ...	0.01	0.01	0.01	0.03	0.16	---	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	0%	0%	20%	---	---	---	---	---	---
	Vegetation Cover ...	35%	30%	25%	30%	30%	---	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.35	0.25	---	---	---	---	---	---

XKSAT log avg (bare ground) = 0.02
PSIF = 11.20
DTHETA (Dry) = 0.19
DTHETA (Normal) = 0.10
RTIMP avg. = 6.03 %
Veg. Cover avg. = 30.44 %
IA avg. = 0.32

Total Sub Basin Area in sq. miles = 1.7573

U3	Soil Map Unit No. ...	3	12	13	23	44	52	68	98	0	0	0
	Sub-Area (acres) ...	6.0	331.4	152.6	44.2	133.6	294.5	0.0	66.9	---	---	---
	XKSAT (bare ground) ...	0.58	0.01	0.01	0.01	0.03	0.16	0.63	0.37	---	---	---
	RTIMP (rock) ...	0%	0%	0%	0%	0%	20%	0%	0%	---	---	---
	Vegetation Cover ...	30%	35%	30%	25%	30%	30%	10%	15%	---	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.35	0.35	0.25	0.35	0.35	---	---	---

XKSAT log avg (bare ground) = 0.03
PSIF = 10.10
DTHETA (Dry) = 0.22
DTHETA (Normal) = 0.13
RTIMP avg. = 5.72 %
Veg. Cover avg. = 30.42 %
IA avg. = 0.32

Total Sub Basin Area in sq. miles = 1.6083

U4	Soil Map Unit No. ...	3	12	44	52	68	110	0	0	0	0	0
	Sub-Area (acres) ...	33.8	41.5	151.5	195.7	95.3	5.6	---	---	---	---	---
	XKSAT (bare ground) ...	0.58	0.01	0.03	0.16	0.63	0.13	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	0%	20%	0%	0%	---	---	---	---	---
	Vegetation Cover ...	30%	35%	30%	30%	10%	10%	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.25	0.35	0.35	---	---	---	---	---

XKSAT log avg (bare ground) = 0.11
PSIF = 6.80
DTHETA (Dry) = 0.36
DTHETA (Normal) = 0.17
RTIMP avg. = 7.48 %
Veg. Cover avg. = 26.54 %
IA avg. = 0.31

Total Sub Basin Area in sq. miles = 0.8177

Sonoran Wash Table A-4
Worksheet
Soils, Vegetation Cover, and RTIMP for rainfall losses by Green & Ampt method for each subbasin

U5	Soil Map Unit No.	...	3	12	44	52	68	98	100	110	0	0	0
	Sub-Area (acres)	...	0.5	85.0	323.0	281.1	103.1	7.9	17.1	5.5	---	---	---
	XKSAT (bare ground)	...	0.58	0.01	0.03	0.16	0.63	0.37	0.40	0.13	---	---	---
	RTIMP (rock)	...	0%	0%	0%	20%	0%	0%	20%	0%	---	---	---
	Vegetation Cover	...	30%	35%	30%	30%	10%	15%	25%	10%	---	---	---
	IA (natural only)	...	0.35	0.35	0.35	0.25	0.35	0.35	0.25	0.35	---	---	---

XKSAT log avg (bare ground) = 0.08
PSIF = 7.60
DTHETA (Dry) = 0.32
DTHETA (Normal) = 0.15
RTIMP avg. = 7.25 %
Veg. Cover avg. = 27.63 %
IA avg. = 0.31

Total Sub Basin Area in sq. miles = 1.2864

U6	Soil Map Unit No.	...	3	12	23	44	52	68	110	0	0	0	0
	Sub-Area (acres)	...	22.4	46.1	11.9	75.0	209.3	44.5	32.0	---	---	---	---
	XKSAT (bare ground)	...	0.58	0.01	0.01	0.03	0.16	0.63	0.13	---	---	---	---
	RTIMP (rock)	...	0%	0%	0%	0%	20%	0%	0%	---	---	---	---
	Vegetation Cover	...	30%	35%	25%	30%	30%	10%	10%	---	---	---	---
	IA (natural only)	...	0.35	0.35	0.35	0.35	0.25	0.35	0.35	---	---	---	---

XKSAT log avg (bare ground) = 0.10
PSIF = 7.00
DTHETA (Dry) = 0.35
DTHETA (Normal) = 0.15
RTIMP avg. = 9.49 %
Veg. Cover avg. = 26.92 %
IA avg. = 0.30

Total Sub Basin Area in sq. miles = 0.6895

U7	Soil Map Unit No.	...	3	12	44	52	68	98	100	0	0	0	0
	Sub-Area (acres)	...	0.1	6.4	135.8	6.6	128.7	0.1	192.9	---	---	---	---
	XKSAT (bare ground)	...	0.58	0.01	0.03	0.16	0.63	0.37	0.40	---	---	---	---
	RTIMP (rock)	...	0%	0%	0%	20%	0%	0%	20%	---	---	---	---
	Vegetation Cover	...	30%	35%	30%	30%	10%	15%	25%	---	---	---	---
	IA (natural only)	...	0.35	0.35	0.35	0.25	0.35	0.35	0.25	---	---	---	---

XKSAT log avg (bare ground) = 0.20
PSIF = 5.30
DTHETA (Dry) = 0.37
DTHETA (Normal) = 0.25
RTIMP avg. = 8.48 %
Veg. Cover avg. = 22.55 %
IA avg. = 0.31

Total Sub Basin Area in sq. miles = 0.7353

U8	Soil Map Unit No.	...	13	44	52	68	100	123	0	0	0	0	0
	Sub-Area (acres)	...	3.4	5.7	57.9	68.9	68.8	9.3	---	---	---	---	---
	XKSAT (bare ground)	...	0.01	0.03	0.16	0.63	0.40	0.37	---	---	---	---	---
	RTIMP (rock)	...	0%	0%	20%	0%	20%	0%	---	---	---	---	---
	Vegetation Cover	...	30%	30%	30%	10%	25%	20%	---	---	---	---	---
	IA (natural only)	...	0.35	0.35	0.25	0.35	0.25	0.15	---	---	---	---	---

XKSAT log avg (bare ground) = 0.32
PSIF = 4.40
DTHETA (Dry) = 0.35
DTHETA (Normal) = 0.25
RTIMP avg. = 11.84 %
Veg. Cover avg. = 21.52 %
IA avg. = 0.28

Total Sub Basin Area in sq. miles = 0.3344

Sonoran Wash Table A-4
Worksheet
Soils, Vegetation Cover, and RTIMP for rainfall losses by Green & Ampt method for each subbasin

U9	Soil Map Unit No. ...	12	44	68	98	100	123	0	0	0	0	0
	Sub-Area (acres) ...	60.5	119.7	39.1	51.5	1.9	0.3	---	---	---	---	---
	XKSAT (bare ground) ...	0.01	0.03	0.63	0.37	0.40	0.37	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	0%	0%	20%	0%	---	---	---	---	---
	Vegetation Cover ...	35%	30%	10%	15%	25%	20%	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.35	0.25	0.15	---	---	---	---	---

XKSAT log avg (bare ground) = 0.06
PSIF = 8.40
DTHETA (Dry) = 0.29
DTHETA (Normal) = 0.15
RTIMP avg. = 0.14 %
Veg. Cover avg. = 25.37 %
IA avg. = 0.35

Total Sub Basin Area in sq. miles = 0.4267

U10	Soil Map Unit No. ...	44	98	100	123	0	0	0	0	0	0	0
	Sub-Area (acres) ...	278.1	46.3	23.1	126.8	---	---	---	---	---	---	---
	XKSAT (bare ground) ...	0.03	0.37	0.40	0.37	---	---	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	20%	0%	---	---	---	---	---	---	---
	Vegetation Cover ...	30%	15%	25%	20%	---	---	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.25	0.15	---	---	---	---	---	---	---

XKSAT log avg (bare ground) = 0.09
PSIF = 7.30
DTHETA (Dry) = 0.33
DTHETA (Normal) = 0.15
RTIMP avg. = 0.98 %
Veg. Cover avg. = 25.62 %
IA avg. = 0.29

Total Sub Basin Area in sq. miles = 0.7412

U11	Soil Map Unit No. ...	12	21	44	52	98	100	110	118	123	0	0
	Sub-Area (acres) ...	21.0	8.6	235.2	12.8	208.0	12.6	4.1	8.6	78.0	---	---
	XKSAT (bare ground) ...	0.01	0.38	0.03	0.16	0.37	0.40	0.13	0.42	0.37	---	---
	RTIMP (rock) ...	0%	0%	0%	20%	0%	20%	0%	0%	0%	---	---
	Vegetation Cover ...	35%	10%	30%	30%	15%	25%	10%	30%	20%	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.25	0.35	0.25	0.35	0.35	0.15	---	---

XKSAT log avg (bare ground) = 0.12
PSIF = 6.60
DTHETA (Dry) = 0.37
DTHETA (Normal) = 0.19
RTIMP avg. = 0.86 %
Veg. Cover avg. = 23.02 %
IA avg. = 0.32

Total Sub Basin Area in sq. miles = 0.9204

U12	Soil Map Unit No. ...	3	12	44	52	68	98	100	112	123	124	0
	Sub-Area (acres) ...	32.4	169.5	90.5	52.7	91.4	73.9	45.1	13.2	61.0	0.4	---
	XKSAT (bare ground) ...	0.58	0.01	0.03	0.16	0.63	0.37	0.40	0.39	0.37	0.39	---
	RTIMP (rock) ...	0%	0%	0%	20%	0%	0%	20%	0%	0%	0%	---
	Vegetation Cover ...	30%	35%	30%	30%	10%	15%	25%	25%	20%	18%	---
	IA (natural only) ...	0.35	0.35	0.35	0.25	0.35	0.35	0.25	0.35	0.15	0.35	---

XKSAT log avg (bare ground) = 0.10
PSIF = 7.00
DTHETA (Dry) = 0.35
DTHETA (Normal) = 0.15
RTIMP avg. = 3.10 %
Veg. Cover avg. = 25.25 %
IA avg. = 0.32

Total Sub Basin Area in sq. miles = 0.9845

Sonoran Wash Table A-4
Worksheet
Soils, Vegetation Cover, and RTIMP for rainfall losses by Green & Ampt method for each subbasin

U13	Soil Map Unit No. ...	3	12	44	52	98	100	110	123	124	0	0
	Sub-Area (acres) ...	46.7	16.1	204.3	224.3	126.8	9.8	14.7	7.8	9.7	---	---
	XKSAT (bare ground) ...	0.58	0.01	0.03	0.16	0.37	0.40	0.13	0.37	0.39	---	---
	RTIMP (rock) ...	0%	0%	0%	20%	0%	20%	0%	0%	0%	---	---
	Vegetation Cover ...	30%	35%	30%	30%	15%	25%	10%	20%	18%	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.25	0.35	0.25	0.35	0.15	0.35	---	---

XKSAT log avg (bare ground) = 0.12
PSIF = 6.60
DTHETA (Dry) = 0.37
DTHETA (Normal) = 0.19
RTIMP avg. = 7.09 %
Veg. Cover avg. = 26.43 %
IA avg. = 0.31

Total Sub Basin Area in sq. miles = 1.0316

U13A	Soil Map Unit No. ...	3	44	52	98	110	0	0	0	0	0	0
	Sub-Area (acres) ...	0.9	32.9	179.0	0.1	11.2	---	---	---	---	---	---
	XKSAT (bare ground) ...	0.58	0.03	0.16	0.37	0.13	---	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	20%	0%	0%	---	---	---	---	---	---
	Vegetation Cover ...	30%	30%	30%	15%	10%	---	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.25	0.35	0.35	---	---	---	---	---	---

XKSAT log avg (bare ground) = 0.12
PSIF = 6.60
DTHETA (Dry) = 0.37
DTHETA (Normal) = 0.19
RTIMP avg. = 15.98 %
Veg. Cover avg. = 29.00 %
IA avg. = 0.27

Total Sub Basin Area in sq. miles = 0.3501

U14	Soil Map Unit No. ...	12	44	52	100	110	0	0	0	0	0	0
	Sub-Area (acres) ...	270.3	78.1	6.9	42.0	21.7	---	---	---	---	---	---
	XKSAT (bare ground) ...	0.01	0.03	0.16	0.40	0.13	---	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	20%	20%	0%	---	---	---	---	---	---
	Vegetation Cover ...	35%	30%	30%	25%	10%	---	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.25	0.25	0.35	---	---	---	---	---	---

XKSAT log avg (bare ground) = 0.02
PSIF = 11.20
DTHETA (Dry) = 0.19
DTHETA (Normal) = 0.10
RTIMP avg. = 2.33 %
Veg. Cover avg. = 31.69 %
IA avg. = 0.34

Total Sub Basin Area in sq. miles = 0.6547

U15	Soil Map Unit No. ...	3	12	55	98	110	112	0	0	0	0	0
	Sub-Area (acres) ...	5.0	234.5	7.0	37.6	73.5	16.4	---	---	---	---	---
	XKSAT (bare ground) ...	0.58	0.01	0.27	0.37	0.13	0.39	---	---	---	---	---
	RTIMP (rock) ...	0%	0%	0%	0%	0%	0%	---	---	---	---	---
	Vegetation Cover ...	30%	35%	25%	15%	10%	25%	---	---	---	---	---
	IA (natural only) ...	0.35	0.35	0.35	0.35	0.35	0.35	---	---	---	---	---

XKSAT log avg (bare ground) = 0.03
PSIF = 10.10
DTHETA (Dry) = 0.22
DTHETA (Normal) = 0.13
RTIMP avg. = 0.00 %
Veg. Cover avg. = 27.38 %
IA avg. = 0.35

Total Sub Basin Area in sq. miles = 0.5844

Sonoran Wash Table A-5
Worksheet
Land-Use characteristics for rainfall losses for each subbasin
Estimated Existing Condition

U1	Land Use ID ...	N	LDR	0	0	0	0	0	0	0	0	0	0	
	Natural or Developed ...	N	N	---	---	---	---	---	---	---	---	---	---	
	Sub-Area (acres) ...	440.6	76.9	---	---	---	---	---	---	---	---	---	---	
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.8086

U2	Land Use ID ...	N	C	LDR	MDR	0	0	0	0	0	0	0	0	
	Natural or Developed ...	N	N	N	N	---	---	---	---	---	---	---	---	
	Sub-Area (acres) ...	188.4	2.5	710.8	222.9	---	---	---	---	---	---	---	---	
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	1.7573

U3	Land Use ID ...	N	LDR	MDR	0	0	0	0	0	0	0	0	0	
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---	
	Sub-Area (acres) ...	191.8	276.9	560.6	---	---	---	---	---	---	---	---	---	
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---	

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	1.6083

Sonoran Wash Table A-5

Worksheet

Land-Use characteristics for rainfall losses for each subbasin

Estimated Existing Condition

U4	Land Use ID ...	N	LDR	MDR	0	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	175.7	224.0	123.6	---	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0	%
Developed Area =	0.0	%
RTIMP (Dev.) avg. =	0.00	%
Veg Cover (Dev.) avg. =	0.00	%
IA (Dev.) avg. =	0.00	

Total Sub Basin Area in sq. miles = 0.8177

U5	Land Use ID ...	N	LDR	MDR	0	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	270.7	224.4	328.2	---	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0	%
Developed Area =	0.0	%
RTIMP (Dev.) avg. =	0.00	%
Veg Cover (Dev.) avg. =	0.00	%
IA (Dev.) avg. =	0.00	

Total Sub Basin Area in sq. miles = 1.2864

U6	Land Use ID ...	N	MFR	MDR	0	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	142.7	8.9	289.6	---	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0	%
Developed Area =	0.0	%
RTIMP (Dev.) avg. =	0.00	%
Veg Cover (Dev.) avg. =	0.00	%
IA (Dev.) avg. =	0.00	

Total Sub Basin Area in sq. miles = 0.6895

Sonoran Wash Table A-5

Worksheet

Land-Use characteristics for rainfall losses for each subbasin

Estimated Existing Condition

U7	Land Use ID	...	N	LDR	MDR	0	0	0	0	0	0	0	0	0
	Natural or Developed	...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres)	...	112.6	259.6	98.4	---	---	---	---	---	---	---	---	---
	RTIMP (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area	=	100.0 %
Developed Area	=	0.0 %
RTIMP (Dev.) avg.	=	0.00 %
Veg Cover (Dev.) avg.	=	0.00 %
IA (Dev.) avg.	=	0.00

Total Sub Basin Area in sq. miles = 0.7353

U8	Land Use ID	...	N	LDR	0	0	0	0	0	0	0	0	0	0
	Natural or Developed	...	N	N	---	---	---	---	---	---	---	---	---	---
	Sub-Area (acres)	...	202.6	11.4	---	---	---	---	---	---	---	---	---	---
	RTIMP (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area	=	100.0 %
Developed Area	=	0.0 %
RTIMP (Dev.) avg.	=	0.00 %
Veg Cover (Dev.) avg.	=	0.00 %
IA (Dev.) avg.	=	0.00

Total Sub Basin Area in sq. miles = 0.3344

U9	Land Use ID	...	C	N	LDR	MFR	MDR	0	0	0	0	0	0	0
	Natural or Developed	...	N	N	N	N	N	---	---	---	---	---	---	---
	Sub-Area (acres)	...	80.8	4.8	102.6	2.4	82.6	---	---	---	---	---	---	---
	RTIMP (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed)	...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area	=	100.0 %
Developed Area	=	0.0 %
RTIMP (Dev.) avg.	=	0.00 %
Veg Cover (Dev.) avg.	=	0.00 %
IA (Dev.) avg.	=	0.00

Total Sub Basin Area in sq. miles = 0.4267

Sonoran Wash Table A-5

Worksheet

Land-Use characteristics for rainfall losses for each subbasin

Estimated Existing Condition

U10	Land Use ID ...	LDR	N	VLDR	MDR	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	N	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	364.2	83.5	6.4	20.2	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.7412

U11	Land Use ID ...	C	LDR	N	VLDR	MDR	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	N	N	---	---	---	---	---	---	---
	Sub-Area (acres) ...	132.4	285.1	19.6	44.0	107.4	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.9196

U12	Land Use ID ...	C	N	LDR	MFR	MDR	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	N	N	---	---	---	---	---	---	---
	Sub-Area (acres) ...	167.4	5.2	68.2	225.6	163.7	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.9844

Sonoran Wash Table A-5

Worksheet

Land-Use characteristics for rainfall losses for each subbasin

Estimated Existing Condition

U13	Land Use ID ...	C	N	HDR	MFR	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	N	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	222.5	207.0	108.9	121.8	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	1.0316

U13A	Land Use ID ...	N	HDR	C	0	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	176.3	35.9	11.9	---	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.3501

U14	Land Use ID ...	LDR	C	MDR	N	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	N	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	202.6	65.8	148.3	2.3	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0 %	
Developed Area =	0.0 %	
RTIMP (Dev.) avg. =	0.00 %	
Veg Cover (Dev.) avg. =	0.00 %	
IA (Dev.) avg. =	0.00	
	Total Sub Basin Area in sq. miles =	0.6547

Sonoran Wash Table A-5

Worksheet

Land-Use characteristics for rainfall losses for each subbasin

Estimated Existing Condition

U15	Land Use ID ...	C	MDR	N	0	0	0	0	0	0	0	0	0
	Natural or Developed ...	N	N	N	---	---	---	---	---	---	---	---	---
	Sub-Area (acres) ...	272.9	4.6	96.5	---	---	---	---	---	---	---	---	---
	RTIMP (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	Veg. Cover (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---
	IA (Developed) ...	---	---	---	---	---	---	---	---	---	---	---	---

Natural Area =	100.0	%
Developed Area =	0.0	%
RTIMP (Dev.) avg. =	0.00	%
Veg Cover (Dev.) avg. =	0.00	%
IA (Dev.) avg. =	0.00	

Total Sub Basin Area in sq. miles = 0.5844

SUMMARY OF WATERSHED CHARACTERISTICS

Sonoran Wash Table A-6
Rainfall loss parameters for Green & Ampt method for each subbasin
Estimated Existing Condition

Sub Basin ID	Area			IA, in inches			RTIMP, in %			Vegetation Cover, in %			XKSAT Bare Ground	PSIF	DTHETA			XKSAT Corrected for Veg.
	Total	Natural	Urban	Natural	Urban	Weighted	Natural	Urban	Total	Natural	Urban	Weighted			Natural	Urban	Weighted	
	sq. mi.	%	%										in/hr	inches	dry	normal		in/hr
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
U1	0.8086	100.0	0.0	0.29	0.00	0.29	12.72	0.00	12.72	28.65	0.00	28.65	0.10	7.00	0.35	0.15	0.35	0.12
U2	1.7573	100.0	0.0	0.32	0.00	0.32	6.03	0.00	6.03	30.44	0.00	30.44	0.02	11.20	0.19	0.10	0.19	0.02
U3	1.6083	100.0	0.0	0.32	0.00	0.32	5.72	0.00	5.72	30.42	0.00	30.42	0.03	10.10	0.22	0.13	0.22	0.04
U4	0.8177	100.0	0.0	0.31	0.00	0.31	7.48	0.00	7.48	26.54	0.00	26.54	0.11	6.80	0.36	0.17	0.36	0.13
U5	1.2864	100.0	0.0	0.31	0.00	0.31	7.25	0.00	7.25	27.63	0.00	27.63	0.08	7.60	0.32	0.15	0.32	0.10
U6	0.6895	100.0	0.0	0.30	0.00	0.30	9.49	0.00	9.49	26.92	0.00	26.92	0.10	7.00	0.35	0.15	0.35	0.12
U7	0.7353	100.0	0.0	0.31	0.00	0.31	8.48	0.00	8.48	22.55	0.00	22.55	0.20	5.30	0.37	0.25	0.37	0.23
U8	0.3344	100.0	0.0	0.28	0.00	0.28	11.84	0.00	11.84	21.52	0.00	21.52	0.32	4.40	0.35	0.25	0.35	0.36
U9	0.4267	100.0	0.0	0.35	0.00	0.35	0.14	0.00	0.14	25.37	0.00	25.37	0.06	8.40	0.29	0.15	0.29	0.07
U10	0.7412	100.0	0.0	0.29	0.00	0.29	0.98	0.00	0.98	25.62	0.00	25.62	0.09	7.30	0.33	0.15	0.33	0.11
U11	0.9196	100.0	0.0	0.32	0.00	0.32	0.86	0.00	0.86	23.02	0.00	23.02	0.12	6.60	0.37	0.19	0.37	0.14
U12	0.9844	100.0	0.0	0.32	0.00	0.32	3.10	0.00	3.10	25.25	0.00	25.25	0.10	7.00	0.35	0.15	0.35	0.12
U13	1.0316	100.0	0.0	0.31	0.00	0.31	7.09	0.00	7.09	26.43	0.00	26.43	0.12	6.60	0.37	0.19	0.37	0.14
U13A	0.3501	100.0	0.0	0.27	0.00	0.27	15.98	0.00	15.98	29.00	0.00	29.00	0.12	6.60	0.37	0.19	0.37	0.15
U14	0.6547	100.0	0.0	0.34	0.00	0.34	2.33	0.00	2.33	31.69	0.00	31.69	0.02	11.20	0.19	0.10	0.19	0.02
U15	0.5844	100.0	0.0	0.35	0.00	0.35	0.00	0.00	0.00	27.38	0.00	27.38	0.03	10.10	0.22	0.13	0.22	0.04

IA composite : (7) = (5)*(3)/100+(6)

RTIMP total : (10) = (8) + (9)

Vegetation Cover composite : (13) = (11)*(3)/100+(12)

DTHETA composite : (18) = (16)*(3)/100 + (17)*(4)/100

XKSAT Corrected : (19) = (14)*[(13)/100 * 1.111 + 0.889] where (13) > 10 and (14) < 1.2

NOTE: The values for Urban IA and Vegetation Cover in Columns 6 and 12 are already area weighted. The weighting calculations are done in Table S-5.

Sonoran Wash Table A-7
Lag Parameters for Each Subbasin
Estimated Existing Condition

Sub basin ID (1)	Hydrograph Type (2)	Elevation, in feet		Lag or Tc Flow Path miles (5)	Slope ft/mile (6)	Adjusted Slope ft/mile (7)	Lca miles (8)	Surface Roughness Type (9)	Kn (11)
		Top (3)	Bottom (4)						
U1	Mountain	2364	1702	1.0511	630	---	0.497	D	0.050
U2	Rangeland	1839	1611	2.5170	91	---	1.409	A/B	0.027
U3	Rangeland	1763	1611	2.7313	56	---	1.739	A/B	0.027
U4	Rangeland	1907	1611	2.1669	137	---	1.413	B/C	0.030
U5	Rangeland	1848	1573	2.3063	119	---	1.350	B/C	0.030
U6	Mountain	1812	1573	1.4422	166	---	0.854	C	0.033
U7	Mountain	2095	1573	2.2617	231	---	1.627	C/D	0.045
U8	Mountain	2422	1743	1.0902	623	---	0.507	D	0.050
U9	Rangeland	1845	1563	2.5409	111	---	1.171	A/B	0.027
U10	Mountain	2228	1616	1.8153	337	---	1.256	C	0.033
U11	Rangeland	1900	1563	2.7805	121	---	1.308	A/B	0.027
U12	Rangeland	1730	1550	2.3848	75	---	0.772	B	0.028
U13	Mountain	2100	1538	1.6206	347	---	0.706	C/D	0.045
U13A	Mountain	2100	1538	1.6206	347	---	1.100	C/D	0.045
U14	Rangeland	1767	1579	2.3061	82	---	1.228	A/B	0.027
U15	Rangeland	1579	1529	1.4824	34	---	0.756	A/B	0.027

Surface Descriptions		
Type	Description	Kn
A	Urban	0.020
A/B		0.027
B	Undeveloped Urban or Desert Rangeland	0.028
B/C		0.030
C	Hillslope	0.033
C/D	Foothills	0.045
D	Mountain	0.050

Slope Adjustment Formulas	
y=b+mLn(x) y=adjusted slope, x=unadjusted slope	
225<x<400	
m=	133.8009
b=	-500.8654
x>=400	
m=	61.54998
b=	-74.68274

SUMMARY OF CHANNEL ROUTING DATA

Table A-8
Reach route physical data, Sonoran Wash Existing Condition

Reach Route Concentration Points		In		Length	Elevation (feet)		Slope, in ft/ft	
Top	Bottom	Subbasin	Cross Section Source	Feet	Top	Bottom	Unadjusted	Adjusted
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
002	003	U-6	200 Scale 2' CI Mapping	4495	1611	1573	0.0085	0.0085
003	007	U-12	200 Scale 2' CI Mapping	4772	1573	1550	0.0048	0.0048
004	006	U-9	200 Scale 2' CI Mapping	11822	1743	1563	0.0152	0.0106
005	006	U-11	200 Scale 2' CI Mapping	4673	1616	1563	0.0113	0.0098
006	007	U-12	200 Scale 2' CI Mapping	1923	1563	1550	0.0068	0.0068
007	010	U-13	200 Scale 2' CI Mapping	6043	1550	1529	0.0035	0.0035
008	010	U-15	200 Scale 2' CI Mapping	7000	1579	1529	0.0071	0.0071

Table A-9

Reach route hydraulic data for the 100-year, 24-hour storm, Sonoran Wash Existing Condition

	Reach				Manning's Equation						Computed Using HEC-1 Summary Data					NSTEPS
Routing Reach	Slope in ft/ft	Length in feet	Average n value	Average Q in cfs	Channel Base Width in feet	Flow Area in sf	Flow Top Width in feet	Flow Depth in feet	Froude Number	Average Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	from HEC-1 Input File
												Min.	Max.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
001002	0.009	10763	0.05	1224	12.0	247.7	154.7	4.9	0.71	5.1	5.1	2.7	4.5	0.5833	7	7
002003	0.009	4495	0.05	6145	30.0	1038.1	319.1	6.2	0.59	6.1	15.0	4.5	22.5	0.0833	1	1
003007	0.005	4772	0.05	8043	25.0	1178.8	400.0	9.0	0.64	6.2	4.0	1.9	4.0	0.3333	4	4
004006	0.011	11822	0.05	409	30.0	136.2	127.4	2.7	0.54	3.2	3.3	1.8	2.7	1.0000	12	12
005006	0.011	4673	0.04	1066	30.0	154.2	58.9	3.5	0.77	7.1	15.6	4.7	23.4	0.0833	1	1
006007	0.007	1923	0.05	2850	25.0	502.6	208.9	5.9	0.66	5.8	6.4	1.9	9.6	0.0833	1	1
007010	0.004	6043	0.05	9371	30.0	2426.3	1006.9	7.7	0.45	4.0	4.0	2.0	3.8	0.4167	5	5
008010	0.007	7000	0.04	1039	30.0	176.5	61.9	3.8	0.63	6.0	7.8	3.5	8.8	0.2500	3	3

APPENDIX B

HEC-1 MODEL OUTPUT FILES

100-YEAR, 24 HOUR

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   13JUL01  TIME  12:29:28   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*         609 SECOND STREET             *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

```
X     X  XXXXXXX   XXXXX           X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  1           ID        Skunk Creek Watercourse Master Plan                File: UNE100.IH1
  2           ID           By: ASL Consulting Engineers                 Original: 09/01/1999
  3           ID         For: Flood Control District of Maricopa County  Revised: 03/09/2000
  4           ID
  5           ID        This is an Existing Condition Model
  6           ID
  7           ID        Unnamed Wash Watershed at the CAP Canal
  8           ID
  9           ID        03/09/00  Add DSS operation to export hydrograph at C010 for use in the
 10           ID                  Skunk Creek model.
 11           ID
 12           ID        Model Basis:
 13           ID
 14           ID        * 100-year, 24-hr rainfall with SCS Type II Rainfall Distribution
 15           ID        * Green & Ampt Loss Rate Method
 16           ID        * NMIN = 5
 17           ID        * Phoenix Mountain, Desert/Rangeland and Phoenix Valley S-Graphs
 18           ID        * Modified Puls normal depth channel routing for Unnamed Wash watershed
 19           ID        * 200 Scale 2' CI mapping of Unnamed Wash by Aerial Mapping Company
 20           ID
 21           IT       5 01JAN90             500
 22           IO       5
 23           IN      15
              *
              *DIAGRAM
              *
 24           JD    4.20    0.01
 25           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 26           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 27           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 28           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 29           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 30           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 31           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 32           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 33           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 34           PC    .983    .986    .989    .992    .995    .998   1.000
 35           JD    4.17    1.00
 36           JD    4.07    5.00
 37           JD    3.95   10.00
 38           JD    3.78   30.00
 39           JD    3.61   60.00
 40           JD    3.55   90.00
              *
 41           KK      U1
 42           KM   Sub-Basin     U1
 43           KM
 44           KM       The Phoenix Mountain S-Graph is used for this basin.
 45           KM           Lag Used =  16.5 minutes
 46           KM
 47           BA  0.8086
 48           LG    0.29    0.35    7.00    0.12   12.70
 49           UI     239     908    1593    1085     774     534     374     240     170     115
 50           UI      81      47      32      32      32       0       0       0       0       0
```

1 HEC-1 INPUT PAGE 2

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 51           UI       0       0       0       0       0       0       0       0       0       0
              *

 52           KK  001002
 53           KM
 54           RS       7    FLOW      -1
 55           RC    0.06   0.045   0.055   10763  0.0085
 56           RX    9833    9880    9930    9940    9952    9977   10020   10040
 57           RY    1620    1616    1616    1612    1612    1616    1616    1620
```

```
                *
   58           KK      U2
   59           KM   Sub-Basin     U2
   60           KM
   61           KM      The Desert/Rangeland S-Graph is used for this basin.
   62           KM          Lag Used =  26.7 minutes
   63           KM
   64           BA  1.7573
   65           LG    0.32    0.19   11.20    0.02    6.00
   66           UI     221     625    1309    1835    2095    2006    1552    1120     810     580
   67           UI     420     302     218     152     113      54      54      54      54       0
   68           UI       0       0       0       0       0       0       0       0       0       0
   69           UI       0       0       0       0       0       0       0       0       0       0
                *
   70           KK   C002L
   71           KO       1                              21
   72           KM
   73           HC       2
                *
   74           KK      U3
   75           KM   Sub-Basin     U3
   76           KM
   77           KM      The Desert/Rangeland S-Graph is used for this basin.
   78           KM          Lag Used =  32.8 minutes
   79           KM
   80           BA  1.6083
   81           LG    0.32    0.22   10.10    0.04    5.70
   82           UI     165     318     756    1124    1434    1569    1536    1306    1009     771
   83           UI     588     452     340     270     197     156     113     105      40      40
   84           UI      40      40      40      40       0       0       0       0       0       0
   85           UI       0       0       0       0       0       0       0       0       0       0
                *
   86           KK      U4
   87           KM   Sub-Basin     U4
   88           KM
   89           KM      The Desert/Rangeland S-Graph is used for this basin.
   90           KM          Lag Used =  26.0 minutes
   91           KM
   92           BA  0.8177
   93           LG    0.31    0.36    6.80    0.13    7.50
   94           UI     106     316     643     898    1011     935     697     500     358     253
   95           UI     183     128      90      73      35      26      26      26      26       0
1                                        HEC-1 INPUT                                        PAGE  3
  LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
   96           UI       0       0       0       0       0       0       0       0       0       0
   97           UI       0       0       0       0       0       0       0       0       0       0
                *
   98           KK    C002
   99           KO       1                              21
  100           KM
  101           HC       3
                *
  102           KK  002003
  103           KM
  104           RS       1    FLOW      -1
  105           RC   0.060   0.045   0.055    4495  0.0085
  106           RX    9715    9845    9873    9974   10004   10020   10054   10072
  107           RY    1592  1584.7  1588.4  1585.8    1584  1587.7    1587    1592
                *
  108           KK      U6
  109           KM   Sub-Basin     U6
  110           KM
  111           KM      The Phoenix Mountain S-Graph is used for this basin.
  112           KM          Lag Used =  19.5 minutes
  113           KM
  114           BA  0.6895
  115           LG    0.30    0.35    7.00    0.12    9.50
  116           UI     142     544     925    1142     688     531     382     279     201     142
  117           UI     104      75      58      34      23      23      23       0       0       0
  118           UI       0       0       0       0       0       0       0       0       0       0
                *
  119           KK   C003L
  120           KO       1                              21
  121           KM
  122           HC       2
                *
  123           KK      U5
  124           KM   Sub-Basin     U5
  125           KM
  126           KM      The Desert/Rangeland S-Graph is used for this basin.
  127           KM          Lag Used =  26.8 minutes
  128           KM
  129           BA  1.2864
  130           LG    0.31    0.32    7.60    0.10    7.20
  131           UI     162     452     951    1334    1527    1467    1142     824     597     428
  132           UI     311     224     162     111      86      39      39      39      39       0
  133           UI       0       0       0       0       0       0       0       0       0       0
  134           UI       0       0       0       0       0       0       0       0       0       0
                *
1                                        HEC-1 INPUT                                        PAGE  4
  LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  135           KK      U7
```

```
136          KM   Sub-Basin     U7
137          KM
138          KM      The Phoenix Mountain S-Graph is used for this basin.
139          KM          Lag Used =  37.8 minutes
140          KM
141          BA  0.7353
142          LG    0.31    0.37    5.30    0.23    8.50
143          UI      65      98     240     379     472     582     734     467     388     341
144          UI     299     260     215     172     155     140     108      86      77      72
145          UI      51      50      38      32      32      29      13      13      13      13
146          UI      13      13      13      13       0       0       0       0       0       0
147          UI       0       0       0       0       0       0       0       0       0       0
             *

148          KK    C003
149          KO       1                              21
150          KM
151          HC       3
             *

152          KK  003007
153          KM
154          RS       4    FLOW      -1
155          RC   0.060   0.045   0.055   4772  0.0048
156          RX    9610    9650    9855    9972    9997   10010   10300   10480
157          RY    1560  1558.8  1558.8    1551    1551  1555.6    1560  1560.6
             *

158          KK     U12
159          KM   Sub-Basin    U12
160          KM
161          KM      The Desert/Rangeland S-Graph is used for this basin.
162          KM          Lag Used =  22.4 minutes
163          KM
164          BA  0.9844
165          LG    0.32    0.35    7.00    0.12    3.10
166          UI     148     571    1058    1370    1359    1017     689     468     312     213
167          UI     141     101      50      36      36      36       0       0       0       0
168          UI       0       0       0       0       0       0       0       0       0       0
             *

169          KK   C007L
170          KO       1                              21
171          KM
172          HC       2
             *

173          KK      U8
174          KM   Sub-Basin     U8
175          KM
176          KM      The Phoenix Mountain S-Graph is used for this basin.
177          KM          Lag Used =  16.9 minutes
178          KM
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

179          BA  0.3344
180          LG    0.28    0.35    4.40    0.36   11.80
181          UI      94     357     631     464     323     228     157     106      75      51
182          UI      33      24      13      13      13       0       0       0       0       0
183          UI       0       0       0       0       0       0       0       0       0       0
             *

184          KK  004006
185          KM
186          RS      12    FLOW      -1
187          RC   0.060   0.045   0.055   11822  0.0107
188          RX    9715    9845    9873    9974   10004   10020   10054   10072
189          RY    1692  1684.7  1688.4  1685.8    1684  1687.7    1687    1692
             *

190          KK      U9
191          KM   Sub-Basin     U9
192          KM
193          KM      The Desert/Rangeland S-Graph is used for this basin.
194          KM          Lag Used =  24.1 minutes
195          KM
196          BA  0.4267
197          LG    0.35    0.29    8.40    0.07    0.10
198          UI      60     203     395     533     564     475     331     231     159     111
199          UI      77      53      41      18      15      15      15       0       0       0
200          UI       0       0       0       0       0       0       0       0       0       0
             *

201          KK   C006L
202          KM
203          HC       2
             *

204          KK     U10
205          KM   Sub-Basin    U10
206          KM
207          KM      The Phoenix Mountain S-Graph is used for this basin.
208          KM          Lag Used =  21.5 minutes
209          KM
210          BA  0.7412
211          LG    0.29    0.33    7.30    0.11    1.00
212          UI     118     471     819    1199     766     594     463     331     262     185
213          UI     138     104      79      57      47      22      22      22      22       0
214          UI       0       0       0       0       0       0       0       0       0       0
215          UI       0       0       0       0       0       0       0       0       0       0
             *

216          KK  005006
217          KM
```

```
 218          RS       1    FLOW       -1
 219          RC   0.050   0.040   0.050    4673  0.0113
 220          RX    9473    9525    9975    9988   10018   10050   10440   10520
 221          RY  1540.7    1536    1536  1530.3  1530.3  1535.6  1535.6  1538.4
              *
1                                        HEC-1 INPUT                                    PAGE  6

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 222          KK     U11
 223          KM   Sub-Basin    U11
 224          KM
 225          KM      The Desert/Rangeland S-Graph is used for this basin.
 226          KM          Lag Used =  25.5 minutes
 227          KM
 228          BA  0.9196
 229          LG    0.32    0.37    6.60    0.14    0.90
 230          UI     121     374     747    1040    1161    1047     770     548     389     273
 231          UI     201     136      94      80      30      30      30      30       0       0
 232          UI       0       0       0       0       0       0       0       0       0       0
              *

 233          KK   C006R
 234          KM
 235          HC       2
              *

 236          KK    C006
 237          KM
 238          HC       2
              *

 239          KK  006007
 240          KM
 241          RS       1    FLOW       -1
 242          RC   0.060   0.045   0.055    1923  0.0068
 243          RX    9610    9650    9855    9972    9997   10010   10300   10480
 244          RY    1560  1558.8  1558.8    1551    1551  1555.6    1560  1560.6
              *

 245          KK    C007
 246          KO       1                              21
 247          KM
 248          HC       2
              *

 249          KK  007010
 250          KM
 251          RS       5    FLOW       -1
 252          RC   0.050   0.040   0.050    6043  0.0040
 253          RX    9473    9525    9975    9988   10018   10050   10440   10520
 254          RY  1540.7    1536    1536  1530.3  1530.3  1535.6  1535.6  1538.4
              *

 255          KK     U13
 256          KM   Sub-Basin    U13
 257          KM
 258          KM      The Phoenix Mountain S-Graph is used for this basin.
 259          KM          Lag Used =  22.4 minutes
 260          KM
 261          BA  1.0316
 262          LG    0.31    0.37    6.60    0.14    7.10
 263          UI     155     586    1057    1580    1120     834     664     493     374     291
1                                        HEC-1 INPUT                                    PAGE  7

 LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 264          UI     205     164     119      86      76      46      30      30      30      30
 265          UI       0       0       0       0       0       0       0       0       0       0
 266          UI       0       0       0       0       0       0       0       0       0       0
              *

 267          KK   C010L
 268          KO       1                              21
 269          KM
 270          HC       2
              *

 271          KK     U14
 272          KM   Sub-Basin    U14
 273          KM
 274          KM      The Desert/Rangeland S-Graph is used for this basin.
 275          KM          Lag Used =  25.0 minutes
 276          KM
 277          BA  0.6547
 278          LG    0.34    0.19   11.20    0.02    2.30
 279          UI      88     281     552     770     840     741     535     379     268     184
 280          UI     136      93      60      48      21      21      21      21       0       0
 281          UI       0       0       0       0       0       0       0       0       0       0
              *

 282          KK  008010
 283          KM
 284          RS       3    FLOW       -1
 285          RC   0.050   0.040   0.050    7000  0.0071
 286          RX    9473    9525    9975    9988   10018   10050   10440   10520
 287          RY  1540.7    1536    1536  1530.3  1530.3  1535.6  1535.6  1538.4
              *

 288          KK     U15
 289          KM   Sub-Basin    U15
 290          KM
 291          KM      The Desert/Rangeland S-Graph is used for this basin.
 292          KM          Lag Used =  20.8 minutes
 293          KM
```

```
294          BA  0.5844
295          LG    0.35    0.22   10.10    0.04    0.00
296          UI     102     402     724     891     808     554     365     238     160     102
297          UI      65      39      23      23      23       0       0       0       0       0
298          UI       0       0       0       0       0       0       0       0       0       0
             *

299          KK   C010R
300          KM
301          HC       2
             *
```

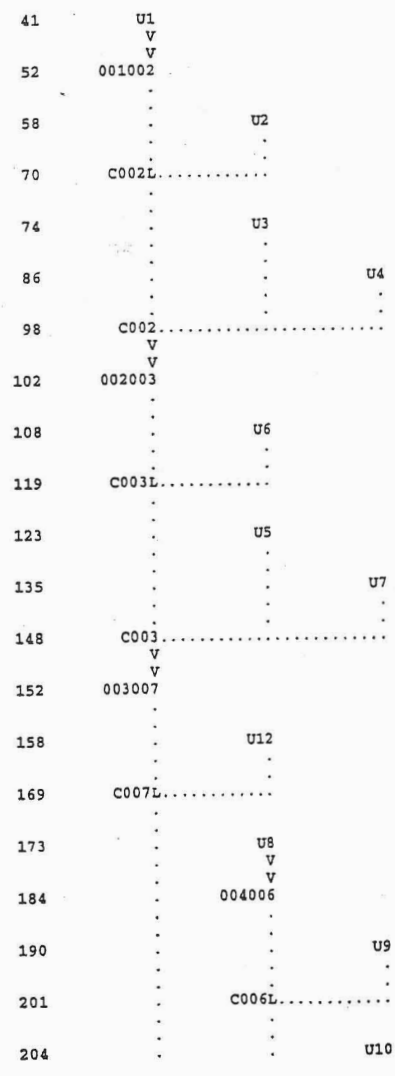
1 HEC-1 INPUT PAGE 8

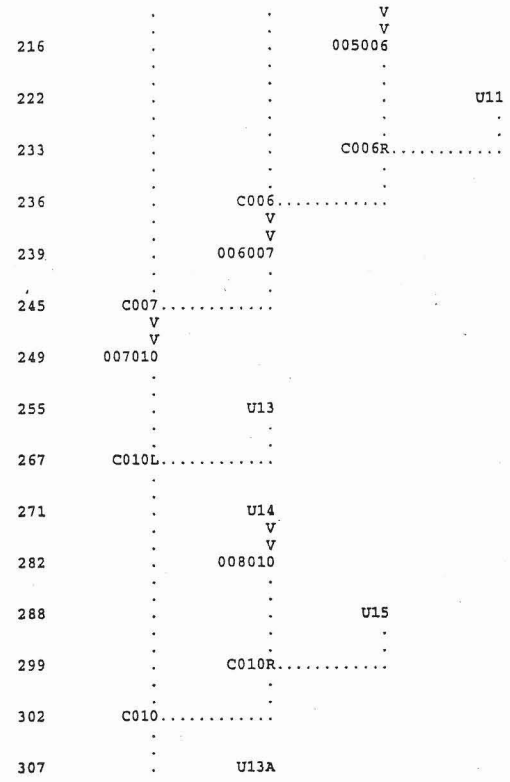
```
LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

302          KK    C010
303          KO       1                              21
304          KM
305          HC       2
             *
306          ZW   A=UNNAMED B=C010 C=FLOW F=CALC
             *

307          KK    U13A
308          KM   Sub-Basin   U13A
309          KM
310          KM      The Phoenix Mountain S-Graph is used for this basin.
311          KM          Lag Used =  26.6 minutes
312          KM
313          BA  0.3501
314          LG    0.27    0.37    6.60    0.15   16.00
315          UI      44     125     259     351     474     295     240     197     158     118
316          UI     100      78      57      49      35      30      22      22      11       9
317          UI       9       9       9       9       0       0       0       0       0       0
318          UI       0       0       0       0       0       0       0       0       0       0
             *
319          ZZ
```

1 SCHEMATIC DIAGRAM OF STREAM NETWORK





(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   13JUL01  TIME  12:29:28   *
*                                       *
*****************************************
```

```
**************************************
*                                    *
*    U.S. ARMY CORPS OF ENGINEERS    *
*    HYDROLOGIC ENGINEERING CENTER   *
*          609 SECOND STREET         *
*       DAVIS, CALIFORNIA 95616      *
*           (916) 756-1104           *
*                                    *
**************************************
```

```
Skunk Creek Watercourse Master Plan                File: UNE100.IH1
   By: ASL Consulting Engineers                 Original: 09/01/1999
  For: Flood Control District of Maricopa County  Revised: 03/09/2000

This is an Existing Condition Model

Unnamed Wash Watershed at the CAP Canal

03/09/00  Add DSS operation to export hydrograph at C010 for use in the
          Skunk Creek model.

Model Basis:

* 100-year, 24-hr rainfall with SCS Type II Rainfall Distribution
* Green & Ampt Loss Rate Method
* NMIN = 5
* Phoenix Mountain, Desert/Rangeland and Phoenix Valley S-Graphs
* Modified Puls normal depth channel routing for Unnamed Wash watershed
* 200 Scale 2' CI mapping of Unnamed Wash by Aerial Mapping Company

 22 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1JAN90  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         500  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2JAN90  ENDING DATE
                     NDTIME        1735  ENDING TIME
                      ICENT          19  CENTURY MARK

                    COMPUTATION INTERVAL      .08 HOURS
                        TOTAL TIME BASE   41.58 HOURS

          ENGLISH UNITS
               DRAINAGE AREA         SQUARE MILES
               PRECIPITATION DEPTH   INCHES
               LENGTH, ELEVATION     FEET
               FLOW                  CUBIC FEET PER SECOND
               STORAGE VOLUME        ACRE-FEET
               SURFACE AREA          ACRES
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          TEMPERATURE            DEGREES FAHRENHEIT

24 JD          INDEX STORM NO. 1
                    STRM        4.20   PRECIPITATION DEPTH
                    TRDA         .01   TRANSPOSITION DRAINAGE AREA

25 PI            PRECIPITATION PATTERN
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                   .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                   .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                   .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00

35 JD          INDEX STORM NO. 2
                    STRM        4.17   PRECIPITATION DEPTH
                    TRDA        1.00   TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                   .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                   .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                   .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00

36 JD          INDEX STORM NO. 3
                    STRM        4.07   PRECIPITATION DEPTH
                    TRDA        5.00   TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                   .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                   .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                   .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                   .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                   .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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37 JD          INDEX STORM NO. 4
                     STRM        3.95  PRECIPITATION DEPTH
                     TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
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                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .01   .00   .01
                .01   .01   .01   .01   .01   .01   .01   .01   .03   .03
                .03   .09   .09   .09   .01   .01   .01   .01   .01   .01
                .01   .01   .01   .01   .01   .01   .00   .00   .00   .00
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38 JD          INDEX STORM NO. 5
                     STRM        3.78  PRECIPITATION DEPTH
                     TRDA       30.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
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                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .01   .00   .01
                .01   .01   .01   .01   .01   .01   .01   .01   .03   .03
                .03   .09   .09   .09   .01   .01   .01   .01   .01   .01
                .01   .01   .01   .01   .01   .01   .00   .00   .00   .00
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                .00   .00   .00   .00   .00   .00   .00   .00

39 JD          INDEX STORM NO. 6
                     STRM        3.61  PRECIPITATION DEPTH
                     TRDA       60.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
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                .01   .01   .01   .01   .01   .01   .01   .01   .03   .03
                .03   .09   .09   .09   .01   .01   .01   .01   .01   .01
                .01   .01   .01   .01   .01   .01   .00   .00   .00   .00
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40 JD          INDEX STORM NO. 7
                    STRM         3.55  PRECIPITATION DEPTH
                    TRDA        90.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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              *            *
70 KK         *   C002L    *
              *            *
              **************

71 KO          OUTPUT CONTROL VARIABLES
                    IPRNT          1  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        500  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


73 HC          HYDROGRAPH COMBINATION
                    ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

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                                        HYDROGRAPH AT    C002L
                                     TRANSPOSITION AREA     .0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	58.	*	1 JAN 2050	251	8.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	68.	*	1 JAN 2055	252	8.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	78.	*	1 JAN 2100	253	8.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	91.	*	1 JAN 2105	254	8.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	106.	*	1 JAN 2110	255	8.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	122.	*	1 JAN 2115	256	8.	*	2 JAN 0740	381	0.
1 JAN 0030	7	2.	*	1 JAN 1055	132	139.	*	1 JAN 2120	257	8.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	158.	*	1 JAN 2125	258	8.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	177.	*	1 JAN 2130	259	8.	*	2 JAN 0755	384	0.
1 JAN 0045	10	3.	*	1 JAN 1110	135	197.	*	1 JAN 2135	260	8.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	217.	*	1 JAN 2140	261	7.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	239.	*	1 JAN 2145	262	7.	*	2 JAN 0810	387	0.
1 JAN 0100	13	3.	*	1 JAN 1125	138	261.	*	1 JAN 2150	263	7.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	286.	*	1 JAN 2155	264	7.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	335.	*	1 JAN 2200	265	7.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	427.	*	1 JAN 2205	266	7.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	591.	*	1 JAN 2210	267	7.	*	2 JAN 0835	392	0.
1 JAN 0125	18	4.	*	1 JAN 1150	143	862.	*	1 JAN 2215	268	7.	*	2 JAN 0840	393	0.
1 JAN 0130	19	4.	*	1 JAN 1155	144	1257.	*	1 JAN 2220	269	7.	*	2 JAN 0845	394	0.
1 JAN 0135	20	4.	*	1 JAN 1200	145	1814.	*	1 JAN 2225	270	7.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	2412.	*	1 JAN 2230	271	7.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2967.	*	1 JAN 2235	272	7.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	3315.	*	1 JAN 2240	273	7.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	3340.	*	1 JAN 2245	274	7.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	3079.	*	1 JAN 2250	275	7.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	2753.	*	1 JAN 2255	276	7.	*	2 JAN 0920	401	0.
1 JAN 0210	27	5.	*	1 JAN 1235	152	2470.	*	1 JAN 2300	277	7.	*	2 JAN 0925	402	0.
1 JAN 0215	28	5.	*	1 JAN 1240	153	2220.	*	1 JAN 2305	278	7.	*	2 JAN 0930	403	0.
1 JAN 0220	29	5.	*	1 JAN 1245	154	1976.	*	1 JAN 2310	279	7.	*	2 JAN 0935	404	0.
1 JAN 0225	30	5.	*	1 JAN 1250	155	1730.	*	1 JAN 2315	280	7.	*	2 JAN 0940	405	0.
1 JAN 0230	31	6.	*	1 JAN 1255	156	1479.	*	1 JAN 2320	281	7.	*	2 JAN 0945	406	0.
1 JAN 0235	32	6.	*	1 JAN 1300	157	1222.	*	1 JAN 2325	282	7.	*	2 JAN 0950	407	0.
1 JAN 0240	33	6.	*	1 JAN 1305	158	939.	*	1 JAN 2330	283	7.	*	2 JAN 0955	408	0.
1 JAN 0245	34	6.	*	1 JAN 1310	159	738.	*	1 JAN 2335	284	7.	*	2 JAN 1000	409	0.

1 JAN	0250	35	6.	*	1 JAN	1315	160	609.	*	1 JAN	2340	285	7.	*	2 JAN	1005	410	0.
1 JAN	0255	36	6.	*	1 JAN	1320	161	528.	*	1 JAN	2345	286	7.	*	2 JAN	1010	411	0.
1 JAN	0300	37	6.	*	1 JAN	1325	162	452.	*	1 JAN	2350	287	7.	*	2 JAN	1015	412	0.
1 JAN	0305	38	6.	*	1 JAN	1330	163	385.	*	1 JAN	2355	288	7.	*	2 JAN	1020	413	0.
1 JAN	0310	39	6.	*	1 JAN	1335	164	328.	*	2 JAN	0000	289	7.	*	2 JAN	1025	414	0.
1 JAN	0315	40	6.	*	1 JAN	1340	165	294.	*	2 JAN	0005	290	6.	*	2 JAN	1030	415	0.
1 JAN	0320	41	6.	*	1 JAN	1345	166	264.	*	2 JAN	0010	291	6.	*	2 JAN	1035	416	0.
1 JAN	0325	42	6.	*	1 JAN	1350	167	238.	*	2 JAN	0015	292	6.	*	2 JAN	1040	417	0.
1 JAN	0330	43	7.	*	1 JAN	1355	168	216.	*	2 JAN	0020	293	5.	*	2 JAN	1045	418	0.
1 JAN	0335	44	7.	*	1 JAN	1400	169	197.	*	2 JAN	0025	294	5.	*	2 JAN	1050	419	0.
1 JAN	0340	45	7.	*	1 JAN	1405	170	181.	*	2 JAN	0030	295	4.	*	2 JAN	1055	420	0.
1 JAN	0345	46	7.	*	1 JAN	1410	171	167.	*	2 JAN	0035	296	4.	*	2 JAN	1100	421	0.
1 JAN	0350	47	7.	*	1 JAN	1415	172	155.	*	2 JAN	0040	297	4.	*	2 JAN	1105	422	0.
1 JAN	0355	48	7.	*	1 JAN	1420	173	145.	*	2 JAN	0045	298	4.	*	2 JAN	1110	423	0.
1 JAN	0400	49	7.	*	1 JAN	1425	174	135.	*	2 JAN	0050	299	4.	*	2 JAN	1115	424	0.
1 JAN	0405	50	7.	*	1 JAN	1430	175	126.	*	2 JAN	0055	300	3.	*	2 JAN	1120	425	0.
1 JAN	0410	51	7.	*	1 JAN	1435	176	118.	*	2 JAN	0100	301	3.	*	2 JAN	1125	426	0.
1 JAN	0415	52	7.	*	1 JAN	1440	177	110.	*	2 JAN	0105	302	3.	*	2 JAN	1130	427	0.
1 JAN	0420	53	8.	*	1 JAN	1445	178	102.	*	2 JAN	0110	303	3.	*	2 JAN	1135	428	0.
1 JAN	0425	54	8.	*	1 JAN	1450	179	95.	*	2 JAN	0115	304	3.	*	2 JAN	1140	429	0.
1 JAN	0430	55	8.	*	1 JAN	1455	180	88.	*	2 JAN	0120	305	3.	*	2 JAN	1145	430	0.
1 JAN	0435	56	8.	*	1 JAN	1500	181	83.	*	2 JAN	0125	306	3.	*	2 JAN	1150	431	0.
1 JAN	0440	57	8.	*	1 JAN	1505	182	79.	*	2 JAN	0130	307	3.	*	2 JAN	1155	432	0.
1 JAN	0445	58	8.	*	1 JAN	1510	183	76.	*	2 JAN	0135	308	3.	*	2 JAN	1200	433	0.
1 JAN	0450	59	8.	*	1 JAN	1515	184	74.	*	2 JAN	0140	309	2.	*	2 JAN	1205	434	0.
1 JAN	0455	60	8.	*	1 JAN	1520	185	72.	*	2 JAN	0145	310	2.	*	2 JAN	1210	435	0.
1 JAN	0500	61	8.	*	1 JAN	1525	186	71.	*	2 JAN	0150	311	2.	*	2 JAN	1215	436	0.
1 JAN	0505	62	8.	*	1 JAN	1530	187	68.	*	2 JAN	0155	312	2.	*	2 JAN	1220	437	0.
1 JAN	0510	63	8.	*	1 JAN	1535	188	65.	*	2 JAN	0200	313	2.	*	2 JAN	1225	438	0.
1 JAN	0515	64	8.	*	1 JAN	1540	189	62.	*	2 JAN	0205	314	2.	*	2 JAN	1230	439	0.
1 JAN	0520	65	8.	*	1 JAN	1545	190	59.	*	2 JAN	0210	315	2.	*	2 JAN	1235	440	0.
1 JAN	0525	66	8.	*	1 JAN	1550	191	57.	*	2 JAN	0215	316	1.	*	2 JAN	1240	441	0.
1 JAN	0530	67	8.	*	1 JAN	1555	192	55.	*	2 JAN	0220	317	1.	*	2 JAN	1245	442	0.
1 JAN	0535	68	8.	*	1 JAN	1600	193	54.	*	2 JAN	0225	318	1.	*	2 JAN	1250	443	0.
1 JAN	0540	69	8.	*	1 JAN	1605	194	54.	*	2 JAN	0230	319	1.	*	2 JAN	1255	444	0.
1 JAN	0545	70	8.	*	1 JAN	1610	195	53.	*	2 JAN	0235	320	1.	*	2 JAN	1300	445	0.
1 JAN	0550	71	8.	*	1 JAN	1615	196	53.	*	2 JAN	0240	321	1.	*	2 JAN	1305	446	0.
1 JAN	0555	72	8.	*	1 JAN	1620	197	53.	*	2 JAN	0245	322	1.	*	2 JAN	1310	447	0.
1 JAN	0600	73	9.	*	1 JAN	1625	198	53.	*	2 JAN	0250	323	1.	*	2 JAN	1315	448	0.
1 JAN	0605	74	9.	*	1 JAN	1630	199	53.	*	2 JAN	0255	324	1.	*	2 JAN	1320	449	0.
1 JAN	0610	75	9.	*	1 JAN	1635	200	53.	*	2 JAN	0300	325	0.	*	2 JAN	1325	450	0.
1 JAN	0615	76	9.	*	1 JAN	1640	201	52.	*	2 JAN	0305	326	0.	*	2 JAN	1330	451	0.
1 JAN	0620	77	9.	*	1 JAN	1645	202	50.	*	2 JAN	0310	327	0.	*	2 JAN	1335	452	0.
1 JAN	0625	78	9.	*	1 JAN	1650	203	48.	*	2 JAN	0315	328	0.	*	2 JAN	1340	453	0.
1 JAN	0630	79	9.	*	1 JAN	1655	204	45.	*	2 JAN	0320	329	0.	*	2 JAN	1345	454	0.
1 JAN	0635	80	10.	*	1 JAN	1700	205	42.	*	2 JAN	0325	330	0.	*	2 JAN	1350	455	0.
1 JAN	0640	81	10.	*	1 JAN	1705	206	40.	*	2 JAN	0330	331	0.	*	2 JAN	1355	456	0.
1 JAN	0645	82	10.	*	1 JAN	1710	207	39.	*	2 JAN	0335	332	0.	*	2 JAN	1400	457	0.
1 JAN	0650	83	10.	*	1 JAN	1715	208	38.	*	2 JAN	0340	333	0.	*	2 JAN	1405	458	0.
1 JAN	0655	84	10.	*	1 JAN	1720	209	37.	*	2 JAN	0345	334	0.	*	2 JAN	1410	459	0.
1 JAN	0700	85	10.	*	1 JAN	1725	210	37.	*	2 JAN	0350	335	0.	*	2 JAN	1415	460	0.
1 JAN	0705	86	10.	*	1 JAN	1730	211	37.	*	2 JAN	0355	336	0.	*	2 JAN	1420	461	0.
1 JAN	0710	87	10.	*	1 JAN	1735	212	36.	*	2 JAN	0400	337	0.	*	2 JAN	1425	462	0.
1 JAN	0715	88	10.	*	1 JAN	1740	213	36.	*	2 JAN	0405	338	0.	*	2 JAN	1430	463	0.
1 JAN	0720	89	10.	*	1 JAN	1745	214	36.	*	2 JAN	0410	339	0.	*	2 JAN	1435	464	0.
1 JAN	0725	90	10.	*	1 JAN	1750	215	36.	*	2 JAN	0415	340	0.	*	2 JAN	1440	465	0.
1 JAN	0730	91	10.	*	1 JAN	1755	216	35.	*	2 JAN	0420	341	0.	*	2 JAN	1445	466	0.
1 JAN	0735	92	10.	*	1 JAN	1800	217	33.	*	2 JAN	0425	342	0.	*	2 JAN	1450	467	0.
1 JAN	0740	93	10.	*	1 JAN	1805	218	31.	*	2 JAN	0430	343	0.	*	2 JAN	1455	468	0.
1 JAN	0745	94	10.	*	1 JAN	1810	219	28.	*	2 JAN	0435	344	0.	*	2 JAN	1500	469	0.
1 JAN	0750	95	10.	*	1 JAN	1815	220	25.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.
1 JAN	0755	96	11.	*	1 JAN	1820	221	23.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.
1 JAN	0800	97	11.	*	1 JAN	1825	222	22.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.
1 JAN	0805	98	11.	*	1 JAN	1830	223	21.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.
1 JAN	0810	99	11.	*	1 JAN	1835	224	20.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.
1 JAN	0815	100	11.	*	1 JAN	1840	225	20.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.
1 JAN	0820	101	11.	*	1 JAN	1845	226	20.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.
1 JAN	0825	102	11.	*	1 JAN	1850	227	19.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.
1 JAN	0830	103	12.	*	1 JAN	1855	228	19.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.
1 JAN	0835	104	12.	*	1 JAN	1900	229	19.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.
1 JAN	0840	105	12.	*	1 JAN	1905	230	19.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.
1 JAN	0845	106	13.	*	1 JAN	1910	231	19.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.
1 JAN	0850	107	13.	*	1 JAN	1915	232	19.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	13.	*	1 JAN	1920	233	19.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	13.	*	1 JAN	1925	234	19.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	13.	*	1 JAN	1930	235	20.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	13.	*	1 JAN	1935	236	20.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	14.	*	1 JAN	1940	237	20.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	14.	*	1 JAN	1945	238	20.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	14.	*	1 JAN	1950	239	20.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	14.	*	1 JAN	1955	240	19.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	15.	*	1 JAN	2000	241	18.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	16.	*	1 JAN	2005	242	17.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	18.	*	1 JAN	2010	243	15.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	21.	*	1 JAN	2015	244	13.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	25.	*	1 JAN	2020	245	12.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	30.	*	1 JAN	2025	246	11.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	34.	*	1 JAN	2030	247	10.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	39.	*	1 JAN	2035	248	9.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	44.	*	1 JAN	2040	249	9.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	51.	*	1 JAN	2045	250	9.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3340.	12.33		613.	163.	94.	94.
		(INCHES)	2.221	2.368	2.372	2.372
		(AC-FT)	304.	324.	325.	325.

CUMULATIVE AREA = 2.57 SQ MI

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HYDROGRAPH AT C002L
TRANSPOSITION AREA 1.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	56.	1 JAN 2050	251	8.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	65.	1 JAN 2055	252	8.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	76.	1 JAN 2100	253	8.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	89.	1 JAN 2105	254	8.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	103.	1 JAN 2110	255	8.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	119.	1 JAN 2115	256	8.	2 JAN 0740	381	0.
1 JAN 0030	7	2.	1 JAN 1055	132	136.	1 JAN 2120	257	8.	2 JAN 0745	382	0.
1 JAN 0035	8	2.	1 JAN 1100	133	155.	1 JAN 2125	258	8.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	174.	1 JAN 2130	259	8.	2 JAN 0755	384	0.
1 JAN 0045	10	3.	1 JAN 1110	135	194.	1 JAN 2135	260	7.	2 JAN 0800	385	0.
1 JAN 0050	11	3.	1 JAN 1115	136	214.	1 JAN 2140	261	7.	2 JAN 0805	386	0.
1 JAN 0055	12	3.	1 JAN 1120	137	235.	1 JAN 2145	262	7.	2 JAN 0810	387	0.
1 JAN 0100	13	3.	1 JAN 1125	138	258.	1 JAN 2150	263	7.	2 JAN 0815	388	0.
1 JAN 0105	14	3.	1 JAN 1130	139	282.	1 JAN 2155	264	7.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	331.	1 JAN 2200	265	7.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	423.	1 JAN 2205	266	7.	2 JAN 0830	391	0.
1 JAN 0120	17	4.	1 JAN 1145	142	586.	1 JAN 2210	267	7.	2 JAN 0835	392	0.
1 JAN 0125	18	4.	1 JAN 1150	143	855.	1 JAN 2215	268	7.	2 JAN 0840	393	0.
1 JAN 0130	19	4.	1 JAN 1155	144	1247.	1 JAN 2220	269	7.	2 JAN 0845	394	0.
1 JAN 0135	20	4.	1 JAN 1200	145	1800.	1 JAN 2225	270	7.	2 JAN 0850	395	0.
1 JAN 0140	21	4.	1 JAN 1205	146	2393.	1 JAN 2230	271	7.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	2943.	1 JAN 2235	272	7.	2 JAN 0900	397	0.
1 JAN 0150	23	4.	1 JAN 1215	148	3288.	1 JAN 2240	273	7.	2 JAN 0905	398	0.
1 JAN 0155	24	4.	1 JAN 1220	149	3315.	1 JAN 2245	274	7.	2 JAN 0910	399	0.
1 JAN 0200	25	5.	1 JAN 1225	150	3056.	1 JAN 2250	275	7.	2 JAN 0915	400	0.
1 JAN 0205	26	5.	1 JAN 1230	151	2731.	1 JAN 2255	276	7.	2 JAN 0920	401	0.
1 JAN 0210	27	5.	1 JAN 1235	152	2449.	1 JAN 2300	277	7.	2 JAN 0925	402	0.
1 JAN 0215	28	5.	1 JAN 1240	153	2202.	1 JAN 2305	278	7.	2 JAN 0930	403	0.
1 JAN 0220	29	5.	1 JAN 1245	154	1960.	1 JAN 2310	279	7.	2 JAN 0935	404	0.
1 JAN 0225	30	5.	1 JAN 1250	155	1715.	1 JAN 2315	280	7.	2 JAN 0940	405	0.
1 JAN 0230	31	5.	1 JAN 1255	156	1466.	1 JAN 2320	281	7.	2 JAN 0945	406	0.
1 JAN 0235	32	6.	1 JAN 1300	157	1209.	1 JAN 2325	282	7.	2 JAN 0950	407	0.
1 JAN 0240	33	6.	1 JAN 1305	158	926.	1 JAN 2330	283	7.	2 JAN 0955	408	0.
1 JAN 0245	34	6.	1 JAN 1310	159	729.	1 JAN 2335	284	7.	2 JAN 1000	409	0.
1 JAN 0250	35	6.	1 JAN 1315	160	602.	1 JAN 2340	285	7.	2 JAN 1005	410	0.
1 JAN 0255	36	6.	1 JAN 1320	161	523.	1 JAN 2345	286	7.	2 JAN 1010	411	0.
1 JAN 0300	37	6.	1 JAN 1325	162	447.	1 JAN 2350	287	7.	2 JAN 1015	412	0.
1 JAN 0305	38	6.	1 JAN 1330	163	381.	1 JAN 2355	288	7.	2 JAN 1020	413	0.
1 JAN 0310	39	6.	1 JAN 1335	164	325.	2 JAN 0000	289	7.	2 JAN 1025	414	0.
1 JAN 0315	40	6.	1 JAN 1340	165	291.	2 JAN 0005	290	6.	2 JAN 1030	415	0.
1 JAN 0320	41	6.	1 JAN 1345	166	261.	2 JAN 0010	291	6.	2 JAN 1035	416	0.
1 JAN 0325	42	6.	1 JAN 1350	167	235.	2 JAN 0015	292	6.	2 JAN 1040	417	0.
1 JAN 0330	43	6.	1 JAN 1355	168	214.	2 JAN 0020	293	5.	2 JAN 1045	418	0.
1 JAN 0335	44	7.	1 JAN 1400	169	195.	2 JAN 0025	294	5.	2 JAN 1050	419	0.
1 JAN 0340	45	7.	1 JAN 1405	170	178.	2 JAN 0030	295	4.	2 JAN 1055	420	0.
1 JAN 0345	46	7.	1 JAN 1410	171	165.	2 JAN 0035	296	4.	2 JAN 1100	421	0.
1 JAN 0350	47	7.	1 JAN 1415	172	153.	2 JAN 0040	297	4.	2 JAN 1105	422	0.
1 JAN 0355	48	7.	1 JAN 1420	173	143.	2 JAN 0045	298	4.	2 JAN 1110	423	0.
1 JAN 0400	49	7.	1 JAN 1425	174	134.	2 JAN 0050	299	4.	2 JAN 1115	424	0.
1 JAN 0405	50	7.	1 JAN 1430	175	125.	2 JAN 0055	300	3.	2 JAN 1120	425	0.
1 JAN 0410	51	7.	1 JAN 1435	176	116.	2 JAN 0100	301	3.	2 JAN 1125	426	0.
1 JAN 0415	52	7.	1 JAN 1440	177	108.	2 JAN 0105	302	3.	2 JAN 1130	427	0.
1 JAN 0420	53	7.	1 JAN 1445	178	100.	2 JAN 0110	303	3.	2 JAN 1135	428	0.
1 JAN 0425	54	8.	1 JAN 1450	179	93.	2 JAN 0115	304	3.	2 JAN 1140	429	0.
1 JAN 0430	55	8.	1 JAN 1455	180	87.	2 JAN 0120	305	3.	2 JAN 1145	430	0.
1 JAN 0435	56	8.	1 JAN 1500	181	82.	2 JAN 0125	306	3.	2 JAN 1150	431	0.
1 JAN 0440	57	8.	1 JAN 1505	182	78.	2 JAN 0130	307	3.	2 JAN 1155	432	0.
1 JAN 0445	58	8.	1 JAN 1510	183	75.	2 JAN 0135	308	3.	2 JAN 1200	433	0.
1 JAN 0450	59	8.	1 JAN 1515	184	73.	2 JAN 0140	309	2.	2 JAN 1205	434	0.
1 JAN 0455	60	8.	1 JAN 1520	185	71.	2 JAN 0145	310	2.	2 JAN 1210	435	0.
1 JAN 0500	61	8.	1 JAN 1525	186	69.	2 JAN 0150	311	2.	2 JAN 1215	436	0.
1 JAN 0505	62	8.	1 JAN 1530	187	67.	2 JAN 0155	312	2.	2 JAN 1220	437	0.
1 JAN 0510	63	8.	1 JAN 1535	188	64.	2 JAN 0200	313	2.	2 JAN 1225	438	0.
1 JAN 0515	64	8.	1 JAN 1540	189	61.	2 JAN 0205	314	2.	2 JAN 1230	439	0.
1 JAN 0520	65	8.	1 JAN 1545	190	58.	2 JAN 0210	315	1.	2 JAN 1235	440	0.
1 JAN 0525	66	8.	1 JAN 1550	191	56.	2 JAN 0215	316	1.	2 JAN 1240	441	0.
1 JAN 0530	67	8.	1 JAN 1555	192	54.	2 JAN 0220	317	1.	2 JAN 1245	442	0.
1 JAN 0535	68	8.	1 JAN 1600	193	53.	2 JAN 0225	318	1.	2 JAN 1250	443	0.
1 JAN 0540	69	8.	1 JAN 1605	194	53.	2 JAN 0230	319	1.	2 JAN 1255	444	0.
1 JAN 0545	70	8.	1 JAN 1610	195	52.	2 JAN 0235	320	1.	2 JAN 1300	445	0.
1 JAN 0550	71	8.	1 JAN 1615	196	52.	2 JAN 0240	321	1.	2 JAN 1305	446	0.
1 JAN 0555	72	8.	1 JAN 1620	197	52.	2 JAN 0245	322	1.	2 JAN 1310	447	0.
1 JAN 0600	73	8.	1 JAN 1625	198	52.	2 JAN 0250	323	1.	2 JAN 1315	448	0.
1 JAN 0605	74	9.	1 JAN 1630	199	52.	2 JAN 0255	324	1.	2 JAN 1320	449	0.
1 JAN 0610	75	9.	1 JAN 1635	200	52.	2 JAN 0300	325	0.	2 JAN 1325	450	0.
1 JAN 0615	76	9.	1 JAN 1640	201	51.	2 JAN 0305	326	0.	2 JAN 1330	451	0.
1 JAN 0620	77	9.	1 JAN 1645	202	49.	2 JAN 0310	327	0.	2 JAN 1335	452	0.
1 JAN 0625	78	9.	1 JAN 1650	203	47.	2 JAN 0315	328	0.	2 JAN 1340	453	0.
1 JAN 0630	79	9.	1 JAN 1655	204	44.	2 JAN 0320	329	0.	2 JAN 1345	454	0.
1 JAN 0635	80	10.	1 JAN 1700	205	41.	2 JAN 0325	330	0.	2 JAN 1350	455	0.
1 JAN 0640	81	10.	1 JAN 1705	206	39.	2 JAN 0330	331	0.	2 JAN 1355	456	0.
1 JAN 0645	82	10.	1 JAN 1710	207	38.	2 JAN 0335	332	0.	2 JAN 1400	457	0.
1 JAN 0650	83	10.	1 JAN 1715	208	37.	2 JAN 0340	333	0.	2 JAN 1405	458	0.
1 JAN 0655	84	10.	1 JAN 1720	209	36.	2 JAN 0345	334	0.	2 JAN 1410	459	0.
1 JAN 0700	85	10.	1 JAN 1725	210	36.	2 JAN 0350	335	0.	2 JAN 1415	460	0.
1 JAN 0705	86	10.	1 JAN 1730	211	36.	2 JAN 0355	336	0.	2 JAN 1420	461	0.
1 JAN 0710	87	10.	1 JAN 1735	212	36.	2 JAN 0400	337	0.	2 JAN 1425	462	0.
1 JAN 0715	88	10.	1 JAN 1740	213	36.	2 JAN 0405	338	0.	2 JAN 1430	463	0.
1 JAN 0720	89	10.	1 JAN 1745	214	35.	2 JAN 0410	339	0.	2 JAN 1435	464	0.
1 JAN 0725	90	10.	1 JAN 1750	215	35.	2 JAN 0415	340	0.	2 JAN 1440	465	0.
1 JAN 0730	91	10.	1 JAN 1755	216	34.	2 JAN 0420	341	0.	2 JAN 1445	466	0.
1 JAN 0735	92	10.	1 JAN 1800	217	33.	2 JAN 0425	342	0.	2 JAN 1450	467	0.
1 JAN 0740	93	10.	1 JAN 1805	218	30.	2 JAN 0430	343	0.	2 JAN 1455	468	0.
1 JAN 0745	94	10.	1 JAN 1810	219	27.	2 JAN 0435	344	0.	2 JAN 1500	469	0.
1 JAN 0750	95	10.	1 JAN 1815	220	25.	2 JAN 0440	345	0.	2 JAN 1505	470	0.
1 JAN 0755	96	10.	1 JAN 1820	221	23.	2 JAN 0445	346	0.	2 JAN 1510	471	0.
1 JAN 0800	97	11.	1 JAN 1825	222	21.	2 JAN 0450	347	0.	2 JAN 1515	472	0.
1 JAN 0805	98	11.	1 JAN 1830	223	20.	2 JAN 0455	348	0.	2 JAN 1520	473	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0810	99	11.	1	JAN	1835	224	20.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	11.	1	JAN	1840	225	19.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	11.	1	JAN	1845	226	19.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	11.	1	JAN	1850	227	19.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	12.	1	JAN	1855	228	19.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	12.	1	JAN	1900	229	19.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	12.	1	JAN	1905	230	19.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	13.	1	JAN	1910	231	19.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	13.	1	JAN	1915	232	19.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	13.	1	JAN	1920	233	19.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	13.	1	JAN	1925	234	19.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	13.	1	JAN	1930	235	19.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	13.	1	JAN	1935	236	19.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	14.	1	JAN	1940	237	19.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	14.	1	JAN	1945	238	19.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	14.	1	JAN	1950	239	19.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	14.	1	JAN	1955	240	19.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	15.	1	JAN	2000	241	18.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	16.	1	JAN	2005	242	16.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	18.	1	JAN	2010	243	14.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	20.	1	JAN	2015	244	13.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	24.	1	JAN	2020	245	11.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	28.	1	JAN	2025	246	10.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	32.	1	JAN	2030	247	10.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	37.	1	JAN	2035	248	9.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	42.	1	JAN	2040	249	9.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	48.	1	JAN	2045	250	9.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)	(CFS)				
3315.	12.33		607.	162.	93.	93.
		(INCHES)	2.200	2.344	2.348	2.348
		(AC-FT)	301.	321.	321.	321.

CUMULATIVE AREA = 2.57 SQ MI

HYDROGRAPH AT C002L
TRANSPOSITION AREA 5.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	48.	1	JAN	2050	251	8.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	57.	1	JAN	2055	252	8.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	68.	1	JAN	2100	253	8.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	80.	1	JAN	2105	254	8.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	95.	1	JAN	2110	255	8.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	111.	1	JAN	2115	256	8.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	128.	1	JAN	2120	257	7.	2	JAN	0745	382	0.
1	JAN	0035	8	2.	1	JAN	1100	133	146.	1	JAN	2125	258	7.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	165.	1	JAN	2130	259	7.	2	JAN	0755	384	0.
1	JAN	0045	10	3.	1	JAN	1110	135	184.	1	JAN	2135	260	7.	2	JAN	0800	385	0.
1	JAN	0050	11	3.	1	JAN	1115	136	204.	1	JAN	2140	261	7.	2	JAN	0805	386	0.
1	JAN	0055	12	3.	1	JAN	1120	137	224.	1	JAN	2145	262	7.	2	JAN	0810	387	0.
1	JAN	0100	13	3.	1	JAN	1125	138	246.	1	JAN	2150	263	7.	2	JAN	0815	388	0.
1	JAN	0105	14	3.	1	JAN	1130	139	271.	1	JAN	2155	264	7.	2	JAN	0820	389	0.
1	JAN	0110	15	3.	1	JAN	1135	140	319.	1	JAN	2200	265	7.	2	JAN	0825	390	0.
1	JAN	0115	16	3.	1	JAN	1140	141	408.	1	JAN	2205	266	7.	2	JAN	0830	391	0.
1	JAN	0120	17	3.	1	JAN	1145	142	568.	1	JAN	2210	267	7.	2	JAN	0835	392	0.
1	JAN	0125	18	4.	1	JAN	1150	143	830.	1	JAN	2215	268	7.	2	JAN	0840	393	0.
1	JAN	0130	19	4.	1	JAN	1155	144	1213.	1	JAN	2220	269	7.	2	JAN	0845	394	0.
1	JAN	0135	20	4.	1	JAN	1200	145	1752.	1	JAN	2225	270	7.	2	JAN	0850	395	0.
1	JAN	0140	21	4.	1	JAN	1205	146	2329.	1	JAN	2230	271	7.	2	JAN	0855	396	0.
1	JAN	0145	22	4.	1	JAN	1210	147	2862.	1	JAN	2235	272	7.	2	JAN	0900	397	0.
1	JAN	0150	23	4.	1	JAN	1215	148	3199.	1	JAN	2240	273	7.	2	JAN	0905	398	0.
1	JAN	0155	24	4.	1	JAN	1220	149	3233.	1	JAN	2245	274	7.	2	JAN	0910	399	0.
1	JAN	0200	25	5.	1	JAN	1225	150	2980.	1	JAN	2250	275	7.	2	JAN	0915	400	0.
1	JAN	0205	26	5.	1	JAN	1230	151	2659.	1	JAN	2255	276	7.	2	JAN	0920	401	0.
1	JAN	0210	27	5.	1	JAN	1235	152	2383.	1	JAN	2300	277	7.	2	JAN	0925	402	0.
1	JAN	0215	28	5.	1	JAN	1240	153	2141.	1	JAN	2305	278	7.	2	JAN	0930	403	0.
1	JAN	0220	29	5.	1	JAN	1245	154	1905.	1	JAN	2310	279	7.	2	JAN	0935	404	0.
1	JAN	0225	30	5.	1	JAN	1250	155	1666.	1	JAN	2315	280	7.	2	JAN	0940	405	0.
1	JAN	0230	31	5.	1	JAN	1255	156	1420.	1	JAN	2320	281	7.	2	JAN	0945	406	0.
1	JAN	0235	32	5.	1	JAN	1300	157	1165.	1	JAN	2325	282	7.	2	JAN	0950	407	0.
1	JAN	0240	33	6.	1	JAN	1305	158	880.	1	JAN	2330	283	7.	2	JAN	0955	408	0.
1	JAN	0245	34	6.	1	JAN	1310	159	700.	1	JAN	2335	284	7.	2	JAN	1000	409	0.
1	JAN	0250	35	6.	1	JAN	1315	160	580.	1	JAN	2340	285	7.	2	JAN	1005	410	0.
1	JAN	0255	36	6.	1	JAN	1320	161	504.	1	JAN	2345	286	7.	2	JAN	1010	411	0.
1	JAN	0300	37	6.	1	JAN	1325	162	431.	1	JAN	2350	287	7.	2	JAN	1015	412	0.
1	JAN	0305	38	6.	1	JAN	1330	163	367.	1	JAN	2355	288	6.	2	JAN	1020	413	0.
1	JAN	0310	39	6.	1	JAN	1335	164	313.	2	JAN	0000	289	6.	2	JAN	1025	414	0.
1	JAN	0315	40	6.	1	JAN	1340	165	280.	2	JAN	0005	290	6.	2	JAN	1030	415	0.
1	JAN	0320	41	6.	1	JAN	1345	166	251.	2	JAN	0010	291	6.	2	JAN	1035	416	0.
1	JAN	0325	42	6.	1	JAN	1350	167	226.	2	JAN	0015	292	6.	2	JAN	1040	417	0.
1	JAN	0330	43	6.	1	JAN	1355	168	205.	2	JAN	0020	293	5.	2	JAN	1045	418	0.
1	JAN	0335	44	6.	1	JAN	1400	169	187.	2	JAN	0025	294	5.	2	JAN	1050	419	0.
1	JAN	0340	45	6.	1	JAN	1405	170	171.	2	JAN	0030	295	4.	2	JAN	1055	420	0.
1	JAN	0345	46	6.	1	JAN	1410	171	158.	2	JAN	0035	296	4.	2	JAN	1100	421	0.
1	JAN	0350	47	6.	1	JAN	1415	172	147.	2	JAN	0040	297	4.	2	JAN	1105	422	0.
1	JAN	0355	48	7.	1	JAN	1420	173	137.	2	JAN	0045	298	4.	2	JAN	1110	423	0.
1	JAN	0400	49	7.	1	JAN	1425	174	128.	2	JAN	0050	299	3.	2	JAN	1115	424	0.
1	JAN	0405	50	7.	1	JAN	1430	175	119.	2	JAN	0055	300	3.	2	JAN	1120	425	0.
1	JAN	0410	51	7.	1	JAN	1435	176	111.	2	JAN	0100	301	3.	2	JAN	1125	426	0.
1	JAN	0415	52	7.	1	JAN	1440	177	103.	2	JAN	0105	302	3.	2	JAN	1130	427	0.
1	JAN	0420	53	7.	1	JAN	1445	178	95.	2	JAN	0110	303	3.	2	JAN	1135	428	0.
1	JAN	0425	54	7.	1	JAN	1450	179	89.	2	JAN	0115	304	3.	2	JAN	1140	429	0.
1	JAN	0430	55	7.	1	JAN	1455	180	83.	2	JAN	0120	305	3.	2	JAN	1145	430	0.
1	JAN	0435	56	8.	1	JAN	1500	181	77.	2	JAN	0125	306	3.	2	JAN	1150	431	0.

1 JAN 0440	57	8.	*	1 JAN 1505	182	74.	*	2 JAN 0130	307	3.	*	2 JAN 1155	432	0.
1 JAN 0445	58	8.	*	1 JAN 1510	183	71.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.
1 JAN 0450	59	8.	*	1 JAN 1515	184	69.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.
1 JAN 0455	60	8.	*	1 JAN 1520	185	67.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.
1 JAN 0500	61	8.	*	1 JAN 1525	186	65.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.
1 JAN 0505	62	8.	*	1 JAN 1530	187	63.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.
1 JAN 0510	63	8.	*	1 JAN 1535	188	60.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.
1 JAN 0515	64	8.	*	1 JAN 1540	189	57.	*	2 JAN 0205	314	2.	*	2 JAN 1230	439	0.
1 JAN 0520	65	8.	*	1 JAN 1545	190	54.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.
1 JAN 0525	66	8.	*	1 JAN 1550	191	52.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.
1 JAN 0530	67	8.	*	1 JAN 1555	192	51.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.
1 JAN 0535	68	8.	*	1 JAN 1600	193	50.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.
1 JAN 0540	69	8.	*	1 JAN 1605	194	49.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.
1 JAN 0545	70	8.	*	1 JAN 1610	195	49.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.
1 JAN 0550	71	8.	*	1 JAN 1615	196	49.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.
1 JAN 0555	72	8.	*	1 JAN 1620	197	49.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.
1 JAN 0600	73	8.	*	1 JAN 1625	198	49.	*	2 JAN 0250	323	1.	*	2 JAN 1315	448	0.
1 JAN 0605	74	8.	*	1 JAN 1630	199	49.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.
1 JAN 0610	75	8.	*	1 JAN 1635	200	49.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.
1 JAN 0615	76	9.	*	1 JAN 1640	201	48.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.
1 JAN 0620	77	9.	*	1 JAN 1645	202	46.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.
1 JAN 0625	78	9.	*	1 JAN 1650	203	44.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.
1 JAN 0630	79	9.	*	1 JAN 1655	204	41.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.
1 JAN 0635	80	9.	*	1 JAN 1700	205	39.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.
1 JAN 0640	81	9.	*	1 JAN 1705	206	37.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.
1 JAN 0645	82	10.	*	1 JAN 1710	207	35.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.
1 JAN 0650	83	10.	*	1 JAN 1715	208	34.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.
1 JAN 0655	84	10.	*	1 JAN 1720	209	34.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.
1 JAN 0700	85	10.	*	1 JAN 1725	210	33.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.
1 JAN 0705	86	10.	*	1 JAN 1730	211	33.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.
1 JAN 0710	87	10.	*	1 JAN 1735	212	33.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.
1 JAN 0715	88	10.	*	1 JAN 1740	213	33.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.
1 JAN 0720	89	10.	*	1 JAN 1745	214	33.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.
1 JAN 0725	90	10.	*	1 JAN 1750	215	33.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.
1 JAN 0730	91	10.	*	1 JAN 1755	216	32.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.
1 JAN 0735	92	10.	*	1 JAN 1800	217	30.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.
1 JAN 0740	93	10.	*	1 JAN 1805	218	28.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.
1 JAN 0745	94	10.	*	1 JAN 1810	219	25.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	10.	*	1 JAN 1815	220	22.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	10.	*	1 JAN 1820	221	20.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	10.	*	1 JAN 1825	222	19.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	10.	*	1 JAN 1830	223	18.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	10.	*	1 JAN 1835	224	17.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	11.	*	1 JAN 1840	225	17.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	11.	*	1 JAN 1845	226	17.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	11.	*	1 JAN 1850	227	16.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	11.	*	1 JAN 1855	228	16.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	12.	*	1 JAN 1900	229	16.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	12.	*	1 JAN 1905	230	16.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	12.	*	1 JAN 1910	231	16.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	12.	*	1 JAN 1915	232	16.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	13.	*	1 JAN 1920	233	17.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	13.	*	1 JAN 1925	234	17.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	13.	*	1 JAN 1930	235	17.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	13.	*	1 JAN 1935	236	17.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	13.	*	1 JAN 1940	237	17.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	13.	*	1 JAN 1945	238	17.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	14.	*	1 JAN 1950	239	17.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	14.	*	1 JAN 1955	240	17.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	14.	*	1 JAN 2000	241	16.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	15.	*	1 JAN 2005	242	15.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	16.	*	1 JAN 2010	243	13.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	17.	*	1 JAN 2015	244	12.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	20.	*	1 JAN 2020	245	11.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	22.	*	1 JAN 2025	246	10.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	26.	*	1 JAN 2030	247	9.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	30.	*	1 JAN 2035	248	9.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	35.	*	1 JAN 2040	249	8.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	41.	*	1 JAN 2045	250	8.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3233.	12.33		588.	156.	90.	90.
		(INCHES)	2.130	2.264	2.268	2.268
		(AC-FT)	292.	310.	310.	310.

CUMULATIVE AREA = 2.57 SQ MI

HYDROGRAPH AT C002L
TRANSPOSITION AREA 10.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	39.	*	1 JAN 2050	251	8.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	48.	*	1 JAN 2055	252	8.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	58.	*	1 JAN 2100	253	8.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	70.	*	1 JAN 2105	254	7.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	85.	*	1 JAN 2110	255	7.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	100.	*	1 JAN 2115	256	7.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	117.	*	1 JAN 2120	257	7.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	135.	*	1 JAN 2125	258	7.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	153.	*	1 JAN 2130	259	7.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	172.	*	1 JAN 2135	260	7.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	191.	*	1 JAN 2140	261	7.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	211.	*	1 JAN 2145	262	7.	*	2 JAN 0810	387	0.
1 JAN 0100	13	3.	*	1 JAN 1125	138	233.	*	1 JAN 2150	263	7.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	257.	*	1 JAN 2155	264	7.	*	2 JAN 0820	389	0.

1 JAN 0110	15	3.	*	1 JAN 1135	140	303.	*	1 JAN 2200	265	7.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	391.	*	1 JAN 2205	266	7.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	546.	*	1 JAN 2210	267	7.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	801.	*	1 JAN 2215	268	7.	*	2 JAN 0840	393	0.
1 JAN 0130	19	4.	*	1 JAN 1155	144	1172.	*	1 JAN 2220	269	7.	*	2 JAN 0845	394	0.
1 JAN 0135	20	4.	*	1 JAN 1200	145	1694.	*	1 JAN 2225	270	7.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	2251.	*	1 JAN 2230	271	7.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2765.	*	1 JAN 2235	272	7.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	3092.	*	1 JAN 2240	273	7.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	3131.	*	1 JAN 2245	274	7.	*	2 JAN 0910	399	0.
1 JAN 0200	25	4.	*	1 JAN 1225	150	2892.	*	1 JAN 2250	275	6.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	2575.	*	1 JAN 2255	276	6.	*	2 JAN 0920	401	0.
1 JAN 0210	27	5.	*	1 JAN 1235	152	2303.	*	1 JAN 2300	277	6.	*	2 JAN 0925	402	0.
1 JAN 0215	28	5.	*	1 JAN 1240	153	2068.	*	1 JAN 2305	278	6.	*	2 JAN 0930	403	0.
1 JAN 0220	29	5.	*	1 JAN 1245	154	1838.	*	1 JAN 2310	279	6.	*	2 JAN 0935	404	0.
1 JAN 0225	30	5.	*	1 JAN 1250	155	1606.	*	1 JAN 2315	280	6.	*	2 JAN 0940	405	0.
1 JAN 0230	31	5.	*	1 JAN 1255	156	1365.	*	1 JAN 2320	281	6.	*	2 JAN 0945	406	0.
1 JAN 0235	32	5.	*	1 JAN 1300	157	1106.	*	1 JAN 2325	282	6.	*	2 JAN 0950	407	0.
1 JAN 0240	33	5.	*	1 JAN 1305	158	830.	*	1 JAN 2330	283	6.	*	2 JAN 0955	408	0.
1 JAN 0245	34	6.	*	1 JAN 1310	159	666.	*	1 JAN 2335	284	6.	*	2 JAN 1000	409	0.
1 JAN 0250	35	6.	*	1 JAN 1315	160	554.	*	1 JAN 2340	285	6.	*	2 JAN 1005	410	0.
1 JAN 0255	36	6.	*	1 JAN 1320	161	481.	*	1 JAN 2345	286	6.	*	2 JAN 1010	411	0.
1 JAN 0300	37	6.	*	1 JAN 1325	162	412.	*	1 JAN 2350	287	6.	*	2 JAN 1015	412	0.
1 JAN 0305	38	6.	*	1 JAN 1330	163	350.	*	1 JAN 2355	288	6.	*	2 JAN 1020	413	0.
1 JAN 0310	39	6.	*	1 JAN 1335	164	298.	*	2 JAN 0000	289	6.	*	2 JAN 1025	414	0.
1 JAN 0315	40	6.	*	1 JAN 1340	165	267.	*	2 JAN 0005	290	6.	*	2 JAN 1030	415	0.
1 JAN 0320	41	6.	*	1 JAN 1345	166	239.	*	2 JAN 0010	291	6.	*	2 JAN 1035	416	0.
1 JAN 0325	42	6.	*	1 JAN 1350	167	215.	*	2 JAN 0015	292	5.	*	2 JAN 1040	417	0.
1 JAN 0330	43	6.	*	1 JAN 1355	168	195.	*	2 JAN 0020	293	5.	*	2 JAN 1045	418	0.
1 JAN 0335	44	6.	*	1 JAN 1400	169	177.	*	2 JAN 0025	294	5.	*	2 JAN 1050	419	0.
1 JAN 0340	45	6.	*	1 JAN 1405	170	162.	*	2 JAN 0030	295	4.	*	2 JAN 1055	420	0.
1 JAN 0345	46	6.	*	1 JAN 1410	171	150.	*	2 JAN 0035	296	4.	*	2 JAN 1100	421	0.
1 JAN 0350	47	6.	*	1 JAN 1415	172	139.	*	2 JAN 0040	297	4.	*	2 JAN 1105	422	0.
1 JAN 0355	48	6.	*	1 JAN 1420	173	129.	*	2 JAN 0045	298	3.	*	2 JAN 1110	423	0.
1 JAN 0400	49	6.	*	1 JAN 1425	174	121.	*	2 JAN 0050	299	3.	*	2 JAN 1115	424	0.
1 JAN 0405	50	7.	*	1 JAN 1430	175	112.	*	2 JAN 0055	300	3.	*	2 JAN 1120	425	0.
1 JAN 0410	51	7.	*	1 JAN 1435	176	104.	*	2 JAN 0100	301	3.	*	2 JAN 1125	426	0.
1 JAN 0415	52	7.	*	1 JAN 1440	177	97.	*	2 JAN 0105	302	3.	*	2 JAN 1130	427	0.
1 JAN 0420	53	7.	*	1 JAN 1445	178	89.	*	2 JAN 0110	303	3.	*	2 JAN 1135	428	0.
1 JAN 0425	54	7.	*	1 JAN 1450	179	83.	*	2 JAN 0115	304	3.	*	2 JAN 1140	429	0.
1 JAN 0430	55	7.	*	1 JAN 1455	180	77.	*	2 JAN 0120	305	3.	*	2 JAN 1145	430	0.
1 JAN 0435	56	7.	*	1 JAN 1500	181	72.	*	2 JAN 0125	306	3.	*	2 JAN 1150	431	0.
1 JAN 0440	57	7.	*	1 JAN 1505	182	68.	*	2 JAN 0130	307	3.	*	2 JAN 1155	432	0.
1 JAN 0445	58	7.	*	1 JAN 1510	183	66.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.
1 JAN 0450	59	7.	*	1 JAN 1515	184	64.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.
1 JAN 0455	60	7.	*	1 JAN 1520	185	62.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.
1 JAN 0500	61	7.	*	1 JAN 1525	186	61.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.
1 JAN 0505	62	8.	*	1 JAN 1530	187	58.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.
1 JAN 0510	63	8.	*	1 JAN 1535	188	56.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.
1 JAN 0515	64	8.	*	1 JAN 1540	189	53.	*	2 JAN 0205	314	2.	*	2 JAN 1230	439	0.
1 JAN 0520	65	8.	*	1 JAN 1545	190	50.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.
1 JAN 0525	66	8.	*	1 JAN 1550	191	48.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.
1 JAN 0530	67	8.	*	1 JAN 1555	192	47.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.
1 JAN 0535	68	8.	*	1 JAN 1600	193	46.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.
1 JAN 0540	69	8.	*	1 JAN 1605	194	45.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.
1 JAN 0545	70	8.	*	1 JAN 1610	195	45.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.
1 JAN 0550	71	8.	*	1 JAN 1615	196	45.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.
1 JAN 0555	72	8.	*	1 JAN 1620	197	45.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.
1 JAN 0600	73	8.	*	1 JAN 1625	198	45.	*	2 JAN 0250	323	1.	*	2 JAN 1315	448	0.
1 JAN 0605	74	8.	*	1 JAN 1630	199	45.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.
1 JAN 0610	75	8.	*	1 JAN 1635	200	45.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.
1 JAN 0615	76	8.	*	1 JAN 1640	201	44.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.
1 JAN 0620	77	8.	*	1 JAN 1645	202	42.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.
1 JAN 0625	78	9.	*	1 JAN 1650	203	40.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.
1 JAN 0630	79	9.	*	1 JAN 1655	204	37.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.
1 JAN 0635	80	9.	*	1 JAN 1700	205	35.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.
1 JAN 0640	81	9.	*	1 JAN 1705	206	33.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.
1 JAN 0645	82	9.	*	1 JAN 1710	207	32.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.
1 JAN 0650	83	9.	*	1 JAN 1715	208	31.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.
1 JAN 0655	84	9.	*	1 JAN 1720	209	30.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.
1 JAN 0700	85	9.	*	1 JAN 1725	210	30.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.
1 JAN 0705	86	9.	*	1 JAN 1730	211	30.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.
1 JAN 0710	87	9.	*	1 JAN 1735	212	29.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.
1 JAN 0715	88	10.	*	1 JAN 1740	213	29.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.
1 JAN 0720	89	10.	*	1 JAN 1745	214	29.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.
1 JAN 0725	90	10.	*	1 JAN 1750	215	29.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.
1 JAN 0730	91	10.	*	1 JAN 1755	216	28.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.
1 JAN 0735	92	10.	*	1 JAN 1800	217	27.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.
1 JAN 0740	93	10.	*	1 JAN 1805	218	24.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.
1 JAN 0745	94	10.	*	1 JAN 1810	219	22.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	10.	*	1 JAN 1815	220	19.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	10.	*	1 JAN 1820	221	17.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	10.	*	1 JAN 1825	222	16.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	10.	*	1 JAN 1830	223	15.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	10.	*	1 JAN 1835	224	15.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	10.	*	1 JAN 1840	225	14.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	10.	*	1 JAN 1845	226	14.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	11.	*	1 JAN 1850	227	14.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	11.	*	1 JAN 1855	228	14.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	11.	*	1 JAN 1900	229	14.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	12.	*	1 JAN 1905	230	14.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	12.	*	1 JAN 1910	231	14.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	12.	*	1 JAN 1915	232	14.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	12.	*	1 JAN 1920	233	14.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	12.	*	1 JAN 1925	234	14.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	13.	*	1 JAN 1930	235	14.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	13.	*	1 JAN 1935	236	14.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	13.	*	1 JAN 1940	237	14.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	13.	*	1 JAN 1945	238	14.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	13.	*	1 JAN 1950	239	14.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	14.	*	1 JAN 1955	240	14.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	14.	*	1 JAN 2000	241	14.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	14.	*	1 JAN 2005	242	13.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	14.	*	1 JAN 2010	243	12.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	15.	*	1 JAN 2015	244	11.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	15.	*	1 JAN 2020	245	10.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.

1 JAN 1000	121	17.	*	1 JAN 2025	246	9.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	19.	*	1 JAN 2030	247	9.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	22.	*	1 JAN 2035	248	8.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	26.	*	1 JAN 2040	249	8.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	31.	*	1 JAN 2045	250	8.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3131.	12.33		565.	150.	86.	86.
		(INCHES)	2.046	2.168	2.172	2.172
		(AC-FT)	280.	297.	297.	297.

CUMULATIVE AREA = 2.57 SQ MI

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HYDROGRAPH AT C002L
TRANSPOSITION AREA 30.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	28.	*	1 JAN 2050	251	7.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	35.	*	1 JAN 2055	252	7.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	45.	*	1 JAN 2100	253	7.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	56.	*	1 JAN 2105	254	7.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	70.	*	1 JAN 2110	255	7.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	85.	*	1 JAN 2115	256	7.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	101.	*	1 JAN 2120	257	7.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	118.	*	1 JAN 2125	258	7.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	136.	*	1 JAN 2130	259	7.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	154.	*	1 JAN 2135	260	7.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	173.	*	1 JAN 2140	261	7.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	192.	*	1 JAN 2145	262	7.	*	2 JAN 0810	387	0.
1 JAN 0100	13	3.	*	1 JAN 1125	138	213.	*	1 JAN 2150	263	7.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	236.	*	1 JAN 2155	264	7.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	281.	*	1 JAN 2200	265	7.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	365.	*	1 JAN 2205	266	6.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	514.	*	1 JAN 2210	267	6.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	758.	*	1 JAN 2215	268	6.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	1113.	*	1 JAN 2220	269	6.	*	2 JAN 0845	394	0.
1 JAN 0135	20	4.	*	1 JAN 1200	145	1612.	*	1 JAN 2225	270	6.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	2141.	*	1 JAN 2230	271	6.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2628.	*	1 JAN 2235	272	6.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	2939.	*	1 JAN 2240	273	6.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	2985.	*	1 JAN 2245	274	6.	*	2 JAN 0910	399	0.
1 JAN 0200	25	4.	*	1 JAN 1225	150	2767.	*	1 JAN 2250	275	6.	*	2 JAN 0915	400	0.
1 JAN 0205	26	4.	*	1 JAN 1230	151	2456.	*	1 JAN 2255	276	6.	*	2 JAN 0920	401	0.
1 JAN 0210	27	4.	*	1 JAN 1235	152	2192.	*	1 JAN 2300	277	6.	*	2 JAN 0925	402	0.
1 JAN 0215	28	5.	*	1 JAN 1240	153	1964.	*	1 JAN 2305	278	6.	*	2 JAN 0930	403	0.
1 JAN 0220	29	5.	*	1 JAN 1245	154	1742.	*	1 JAN 2310	279	6.	*	2 JAN 0935	404	0.
1 JAN 0225	30	5.	*	1 JAN 1250	155	1515.	*	1 JAN 2315	280	6.	*	2 JAN 0940	405	0.
1 JAN 0230	31	5.	*	1 JAN 1255	156	1275.	*	1 JAN 2320	281	6.	*	2 JAN 0945	406	0.
1 JAN 0235	32	5.	*	1 JAN 1300	157	1009.	*	1 JAN 2325	282	6.	*	2 JAN 0950	407	0.
1 JAN 0240	33	5.	*	1 JAN 1305	158	773.	*	1 JAN 2330	283	6.	*	2 JAN 0955	408	0.
1 JAN 0245	34	5.	*	1 JAN 1310	159	625.	*	1 JAN 2335	284	6.	*	2 JAN 1000	409	0.
1 JAN 0250	35	5.	*	1 JAN 1315	160	521.	*	1 JAN 2340	285	6.	*	2 JAN 1005	410	0.
1 JAN 0255	36	5.	*	1 JAN 1320	161	453.	*	1 JAN 2345	286	6.	*	2 JAN 1010	411	0.
1 JAN 0300	37	6.	*	1 JAN 1325	162	386.	*	1 JAN 2350	287	6.	*	2 JAN 1015	412	0.
1 JAN 0305	38	6.	*	1 JAN 1330	163	328.	*	1 JAN 2355	288	6.	*	2 JAN 1020	413	0.
1 JAN 0310	39	6.	*	1 JAN 1335	164	278.	*	2 JAN 0000	289	6.	*	2 JAN 1025	414	0.
1 JAN 0315	40	6.	*	1 JAN 1340	165	248.	*	2 JAN 0005	290	6.	*	2 JAN 1030	415	0.
1 JAN 0320	41	6.	*	1 JAN 1345	166	222.	*	2 JAN 0010	291	6.	*	2 JAN 1035	416	0.
1 JAN 0325	42	6.	*	1 JAN 1350	167	200.	*	2 JAN 0015	292	5.	*	2 JAN 1040	417	0.
1 JAN 0330	43	6.	*	1 JAN 1355	168	181.	*	2 JAN 0020	293	5.	*	2 JAN 1045	418	0.
1 JAN 0335	44	6.	*	1 JAN 1400	169	164.	*	2 JAN 0025	294	4.	*	2 JAN 1050	419	0.
1 JAN 0340	45	6.	*	1 JAN 1405	170	150.	*	2 JAN 0030	295	4.	*	2 JAN 1055	420	0.
1 JAN 0345	46	6.	*	1 JAN 1410	171	138.	*	2 JAN 0035	296	4.	*	2 JAN 1100	421	0.
1 JAN 0350	47	6.	*	1 JAN 1415	172	128.	*	2 JAN 0040	297	3.	*	2 JAN 1105	422	0.
1 JAN 0355	48	6.	*	1 JAN 1420	173	119.	*	2 JAN 0045	298	3.	*	2 JAN 1110	423	0.
1 JAN 0400	49	6.	*	1 JAN 1425	174	111.	*	2 JAN 0050	299	3.	*	2 JAN 1115	424	0.
1 JAN 0405	50	6.	*	1 JAN 1430	175	102.	*	2 JAN 0055	300	3.	*	2 JAN 1120	425	0.
1 JAN 0410	51	6.	*	1 JAN 1435	176	95.	*	2 JAN 0100	301	3.	*	2 JAN 1125	426	0.
1 JAN 0415	52	7.	*	1 JAN 1440	177	88.	*	2 JAN 0105	302	3.	*	2 JAN 1130	427	0.
1 JAN 0420	53	7.	*	1 JAN 1445	178	81.	*	2 JAN 0110	303	3.	*	2 JAN 1135	428	0.
1 JAN 0425	54	7.	*	1 JAN 1450	179	75.	*	2 JAN 0115	304	3.	*	2 JAN 1140	429	0.
1 JAN 0430	55	7.	*	1 JAN 1455	180	69.	*	2 JAN 0120	305	3.	*	2 JAN 1145	430	0.
1 JAN 0435	56	7.	*	1 JAN 1500	181	64.	*	2 JAN 0125	306	3.	*	2 JAN 1150	431	0.
1 JAN 0440	57	7.	*	1 JAN 1505	182	61.	*	2 JAN 0130	307	2.	*	2 JAN 1155	432	0.
1 JAN 0445	58	7.	*	1 JAN 1510	183	59.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.
1 JAN 0450	59	7.	*	1 JAN 1515	184	57.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.
1 JAN 0455	60	7.	*	1 JAN 1520	185	55.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.
1 JAN 0500	61	7.	*	1 JAN 1525	186	54.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.
1 JAN 0505	62	7.	*	1 JAN 1530	187	52.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.
1 JAN 0510	63	7.	*	1 JAN 1535	188	49.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.
1 JAN 0515	64	7.	*	1 JAN 1540	189	47.	*	2 JAN 0205	314	1.	*	2 JAN 1230	439	0.
1 JAN 0520	65	7.	*	1 JAN 1545	190	44.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.
1 JAN 0525	66	7.	*	1 JAN 1550	191	42.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.
1 JAN 0530	67	7.	*	1 JAN 1555	192	41.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.
1 JAN 0535	68	7.	*	1 JAN 1600	193	40.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.
1 JAN 0540	69	7.	*	1 JAN 1605	194	40.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.
1 JAN 0545	70	8.	*	1 JAN 1610	195	39.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.
1 JAN 0550	71	8.	*	1 JAN 1615	196	39.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.
1 JAN 0555	72	8.	*	1 JAN 1620	197	39.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.
1 JAN 0600	73	8.	*	1 JAN 1625	198	39.	*	2 JAN 0250	323	1.	*	2 JAN 1315	448	0.
1 JAN 0605	74	8.	*	1 JAN 1630	199	39.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.
1 JAN 0610	75	8.	*	1 JAN 1635	200	39.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.
1 JAN 0615	76	8.	*	1 JAN 1640	201	38.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.
1 JAN 0620	77	8.	*	1 JAN 1645	202	37.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.
1 JAN 0625	78	8.	*	1 JAN 1650	203	35.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.

1 JAN 0630	79	8.	*	1 JAN 1655	204	32.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.		
1 JAN 0635	80	9.	*	1 JAN 1700	205	30.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.		
1 JAN 0640	81	9.	*	1 JAN 1705	206	28.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.		
1 JAN 0645	82	9.	*	1 JAN 1710	207	27.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.		
1 JAN 0650	83	9.	*	1 JAN 1715	208	26.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.		
1 JAN 0655	84	9.	*	1 JAN 1720	209	25.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.		
1 JAN 0700	85	9.	*	1 JAN 1725	210	25.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.		
1 JAN 0705	86	9.	*	1 JAN 1730	211	25.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.		
1 JAN 0710	87	9.	*	1 JAN 1735	212	25.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.		
1 JAN 0715	88	9.	*	1 JAN 1740	213	25.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.		
1 JAN 0720	89	9.	*	1 JAN 1745	214	25.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.		
1 JAN 0725	90	9.	*	1 JAN 1750	215	25.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.		
1 JAN 0730	91	9.	*	1 JAN 1755	216	24.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.		
1 JAN 0735	92	9.	*	1 JAN 1800	217	22.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.		
1 JAN 0740	93	9.	*	1 JAN 1805	218	20.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.		
1 JAN 0745	94	9.	*	1 JAN 1810	219	18.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.		
1 JAN 0750	95	9.	*	1 JAN 1815	220	16.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.		
1 JAN 0755	96	9.	*	1 JAN 1820	221	14.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.		
1 JAN 0800	97	10.	*	1 JAN 1825	222	13.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.		
1 JAN 0805	98	10.	*	1 JAN 1830	223	12.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.		
1 JAN 0810	99	10.	*	1 JAN 1835	224	11.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.		
1 JAN 0815	100	10.	*	1 JAN 1840	225	11.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.		
1 JAN 0820	101	10.	*	1 JAN 1845	226	10.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.		
1 JAN 0825	102	10.	*	1 JAN 1850	227	10.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.		
1 JAN 0830	103	11.	*	1 JAN 1855	228	10.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.		
1 JAN 0835	104	11.	*	1 JAN 1900	229	10.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.		
1 JAN 0840	105	11.	*	1 JAN 1905	230	10.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.		
1 JAN 0845	106	11.	*	1 JAN 1910	231	10.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.		
1 JAN 0850	107	12.	*	1 JAN 1915	232	10.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.		
1 JAN 0855	108	12.	*	1 JAN 1920	233	10.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.		
1 JAN 0900	109	12.	*	1 JAN 1925	234	10.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.		
1 JAN 0905	110	12.	*	1 JAN 1930	235	10.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.		
1 JAN 0910	111	12.	*	1 JAN 1935	236	10.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.		
1 JAN 0915	112	12.	*	1 JAN 1940	237	11.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.		
1 JAN 0920	113	12.	*	1 JAN 1945	238	11.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.		
1 JAN 0925	114	13.	*	1 JAN 1950	239	11.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.		
1 JAN 0930	115	13.	*	1 JAN 1955	240	11.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.		
1 JAN 0935	116	13.	*	1 JAN 2000	241	10.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.		
1 JAN 0940	117	13.	*	1 JAN 2005	242	10.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.		
1 JAN 0945	118	14.	*	1 JAN 2010	243	9.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.		
1 JAN 0950	119	14.	*	1 JAN 2015	244	9.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.		
1 JAN 0955	120	14.	*	1 JAN 2020	245	8.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.		
1 JAN 1000	121	14.	*	1 JAN 2025	246	8.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.		
1 JAN 1005	122	15.	*	1 JAN 2030	247	8.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.		
1 JAN 1010	123	16.	*	1 JAN 2035	248	8.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.		
1 JAN 1015	124	18.	*	1 JAN 2040	249	8.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.		
1 JAN 1020	125	22.	*	1 JAN 2045	250	7.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.		

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2985.	12.33		532.	140.	81.	81.
		(INCHES)	1.926	2.034	2.037	2.037
		(AC-FT)	264.	278.	279.	279.

CUMULATIVE AREA = 2.57 SQ MI

HYDROGRAPH AT C002L
TRANSPOSITION AREA 60.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	19.	*	1 JAN 2050	251	7.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	24.	*	1 JAN 2055	252	7.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	32.	*	1 JAN 2100	253	7.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	42.	*	1 JAN 2105	254	7.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	54.	*	1 JAN 2110	255	7.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	69.	*	1 JAN 2115	256	7.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	84.	*	1 JAN 2120	257	7.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	101.	*	1 JAN 2125	258	7.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	118.	*	1 JAN 2130	259	7.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	136.	*	1 JAN 2135	260	6.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	154.	*	1 JAN 2140	261	6.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	173.	*	1 JAN 2145	262	6.	*	2 JAN 0810	387	0.
1 JAN 0100	13	3.	*	1 JAN 1125	138	193.	*	1 JAN 2150	263	6.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	215.	*	1 JAN 2155	264	6.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	258.	*	1 JAN 2200	265	6.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	338.	*	1 JAN 2205	266	6.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	481.	*	1 JAN 2210	267	6.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	715.	*	1 JAN 2215	268	6.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	1054.	*	1 JAN 2220	269	6.	*	2 JAN 0845	394	0.
1 JAN 0135	20	3.	*	1 JAN 1200	145	1530.	*	1 JAN 2225	270	6.	*	2 JAN 0850	395	0.
1 JAN 0140	21	3.	*	1 JAN 1205	146	2032.	*	1 JAN 2230	271	6.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2491.	*	1 JAN 2235	272	6.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	2786.	*	1 JAN 2240	273	6.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	2837.	*	1 JAN 2245	274	6.	*	2 JAN 0910	399	0.
1 JAN 0200	25	4.	*	1 JAN 1225	150	2642.	*	1 JAN 2250	275	6.	*	2 JAN 0915	400	0.
1 JAN 0205	26	4.	*	1 JAN 1230	151	2339.	*	1 JAN 2255	276	6.	*	2 JAN 0920	401	0.
1 JAN 0210	27	4.	*	1 JAN 1235	152	2081.	*	1 JAN 2300	277	6.	*	2 JAN 0925	402	0.
1 JAN 0215	28	4.	*	1 JAN 1240	153	1860.	*	1 JAN 2305	278	6.	*	2 JAN 0930	403	0.
1 JAN 0220	29	5.	*	1 JAN 1245	154	1645.	*	1 JAN 2310	279	6.	*	2 JAN 0935	404	0.
1 JAN 0225	30	5.	*	1 JAN 1250	155	1423.	*	1 JAN 2315	280	6.	*	2 JAN 0940	405	0.
1 JAN 0230	31	5.	*	1 JAN 1255	156	1184.	*	1 JAN 2320	281	6.	*	2 JAN 0945	406	0.
1 JAN 0235	32	5.	*	1 JAN 1300	157	914.	*	1 JAN 2325	282	6.	*	2 JAN 0950	407	0.
1 JAN 0240	33	5.	*	1 JAN 1305	158	717.	*	1 JAN 2330	283	6.	*	2 JAN 0955	408	0.
1 JAN 0245	34	5.	*	1 JAN 1310	159	583.	*	1 JAN 2335	284	6.	*	2 JAN 1000	409	0.
1 JAN 0250	35	5.	*	1 JAN 1315	160	487.	*	1 JAN 2340	285	6.	*	2 JAN 1005	410	0.
1 JAN 0255	36	5.	*	1 JAN 1320	161	424.	*	1 JAN 2345	286	6.	*	2 JAN 1010	411	0.

1	JAN	0300	37	5.	*	1	JAN	1325	162	361.	*	1	JAN	2350	287	6.	*	2	JAN	1015	412	0.
1	JAN	0305	38	5.	*	1	JAN	1330	163	307.	*	1	JAN	2355	288	6.	*	2	JAN	1020	413	0.
1	JAN	0310	39	5.	*	1	JAN	1335	164	259.	*	2	JAN	0000	289	6.	*	2	JAN	1025	414	0.
1	JAN	0315	40	5.	*	1	JAN	1340	165	231.	*	2	JAN	0005	290	5.	*	2	JAN	1030	415	0.
1	JAN	0320	41	6.	*	1	JAN	1345	166	206.	*	2	JAN	0010	291	5.	*	2	JAN	1035	416	0.
1	JAN	0325	42	6.	*	1	JAN	1350	167	185.	*	2	JAN	0015	292	5.	*	2	JAN	1040	417	0.
1	JAN	0330	43	6.	*	1	JAN	1355	168	167.	*	2	JAN	0020	293	5.	*	2	JAN	1045	418	0.
1	JAN	0335	44	6.	*	1	JAN	1400	169	151.	*	2	JAN	0025	294	4.	*	2	JAN	1050	419	0.
1	JAN	0340	45	6.	*	1	JAN	1405	170	138.	*	2	JAN	0030	295	4.	*	2	JAN	1055	420	0.
1	JAN	0345	46	6.	*	1	JAN	1410	171	127.	*	2	JAN	0035	296	4.	*	2	JAN	1100	421	0.
1	JAN	0350	47	6.	*	1	JAN	1415	172	117.	*	2	JAN	0040	297	3.	*	2	JAN	1105	422	0.
1	JAN	0355	48	6.	*	1	JAN	1420	173	109.	*	2	JAN	0045	298	3.	*	2	JAN	1110	423	0.
1	JAN	0400	49	6.	*	1	JAN	1425	174	101.	*	2	JAN	0050	299	3.	*	2	JAN	1115	424	0.
1	JAN	0405	50	6.	*	1	JAN	1430	175	93.	*	2	JAN	0055	300	3.	*	2	JAN	1120	425	0.
1	JAN	0410	51	6.	*	1	JAN	1435	176	86.	*	2	JAN	0100	301	3.	*	2	JAN	1125	426	0.
1	JAN	0415	52	6.	*	1	JAN	1440	177	79.	*	2	JAN	0105	302	3.	*	2	JAN	1130	427	0.
1	JAN	0420	53	6.	*	1	JAN	1445	178	72.	*	2	JAN	0110	303	3.	*	2	JAN	1135	428	0.
1	JAN	0425	54	7.	*	1	JAN	1450	179	66.	*	2	JAN	0115	304	3.	*	2	JAN	1140	429	0.
1	JAN	0430	55	7.	*	1	JAN	1455	180	61.	*	2	JAN	0120	305	3.	*	2	JAN	1145	430	0.
1	JAN	0435	56	7.	*	1	JAN	1500	181	57.	*	2	JAN	0125	306	2.	*	2	JAN	1150	431	0.
1	JAN	0440	57	7.	*	1	JAN	1505	182	54.	*	2	JAN	0130	307	2.	*	2	JAN	1155	432	0.
1	JAN	0445	58	7.	*	1	JAN	1510	183	51.	*	2	JAN	0135	308	2.	*	2	JAN	1200	433	0.
1	JAN	0450	59	7.	*	1	JAN	1515	184	50.	*	2	JAN	0140	309	2.	*	2	JAN	1205	434	0.
1	JAN	0455	60	7.	*	1	JAN	1520	185	49.	*	2	JAN	0145	310	2.	*	2	JAN	1210	435	0.
1	JAN	0500	61	7.	*	1	JAN	1525	186	47.	*	2	JAN	0150	311	2.	*	2	JAN	1215	436	0.
1	JAN	0505	62	7.	*	1	JAN	1530	187	45.	*	2	JAN	0155	312	2.	*	2	JAN	1220	437	0.
1	JAN	0510	63	7.	*	1	JAN	1535	188	43.	*	2	JAN	0200	313	2.	*	2	JAN	1225	438	0.
1	JAN	0515	64	7.	*	1	JAN	1540	189	40.	*	2	JAN	0205	314	1.	*	2	JAN	1230	439	0.
1	JAN	0520	65	7.	*	1	JAN	1545	190	38.	*	2	JAN	0210	315	1.	*	2	JAN	1235	440	0.
1	JAN	0525	66	7.	*	1	JAN	1550	191	36.	*	2	JAN	0215	316	1.	*	2	JAN	1240	441	0.
1	JAN	0530	67	7.	*	1	JAN	1555	192	35.	*	2	JAN	0220	317	1.	*	2	JAN	1245	442	0.
1	JAN	0535	68	7.	*	1	JAN	1600	193	34.	*	2	JAN	0225	318	1.	*	2	JAN	1250	443	0.
1	JAN	0540	69	7.	*	1	JAN	1605	194	34.	*	2	JAN	0230	319	1.	*	2	JAN	1255	444	0.
1	JAN	0545	70	7.	*	1	JAN	1610	195	34.	*	2	JAN	0235	320	1.	*	2	JAN	1300	445	0.
1	JAN	0550	71	7.	*	1	JAN	1615	196	34.	*	2	JAN	0240	321	1.	*	2	JAN	1305	446	0.
1	JAN	0555	72	7.	*	1	JAN	1620	197	33.	*	2	JAN	0245	322	1.	*	2	JAN	1310	447	0.
1	JAN	0600	73	7.	*	1	JAN	1625	198	33.	*	2	JAN	0250	323	1.	*	2	JAN	1315	448	0.
1	JAN	0605	74	7.	*	1	JAN	1630	199	34.	*	2	JAN	0255	324	0.	*	2	JAN	1320	449	0.
1	JAN	0610	75	7.	*	1	JAN	1635	200	33.	*	2	JAN	0300	325	0.	*	2	JAN	1325	450	0.
1	JAN	0615	76	8.	*	1	JAN	1640	201	33.	*	2	JAN	0305	326	0.	*	2	JAN	1330	451	0.
1	JAN	0620	77	8.	*	1	JAN	1645	202	31.	*	2	JAN	0310	327	0.	*	2	JAN	1335	452	0.
1	JAN	0625	78	8.	*	1	JAN	1650	203	29.	*	2	JAN	0315	328	0.	*	2	JAN	1340	453	0.
1	JAN	0630	79	8.	*	1	JAN	1655	204	27.	*	2	JAN	0320	329	0.	*	2	JAN	1345	454	0.
1	JAN	0635	80	8.	*	1	JAN	1700	205	25.	*	2	JAN	0325	330	0.	*	2	JAN	1350	455	0.
1	JAN	0640	81	8.	*	1	JAN	1705	206	23.	*	2	JAN	0330	331	0.	*	2	JAN	1355	456	0.
1	JAN	0645	82	8.	*	1	JAN	1710	207	22.	*	2	JAN	0335	332	0.	*	2	JAN	1400	457	0.
1	JAN	0650	83	9.	*	1	JAN	1715	208	21.	*	2	JAN	0340	333	0.	*	2	JAN	1405	458	0.
1	JAN	0655	84	9.	*	1	JAN	1720	209	20.	*	2	JAN	0345	334	0.	*	2	JAN	1410	459	0.
1	JAN	0700	85	9.	*	1	JAN	1725	210	20.	*	2	JAN	0350	335	0.	*	2	JAN	1415	460	0.
1	JAN	0705	86	9.	*	1	JAN	1730	211	20.	*	2	JAN	0355	336	0.	*	2	JAN	1420	461	0.
1	JAN	0710	87	9.	*	1	JAN	1735	212	20.	*	2	JAN	0400	337	0.	*	2	JAN	1425	462	0.
1	JAN	0715	88	9.	*	1	JAN	1740	213	20.	*	2	JAN	0405	338	0.	*	2	JAN	1430	463	0.
1	JAN	0720	89	9.	*	1	JAN	1745	214	20.	*	2	JAN	0410	339	0.	*	2	JAN	1435	464	0.
1	JAN	0725	90	9.	*	1	JAN	1750	215	20.	*	2	JAN	0415	340	0.	*	2	JAN	1440	465	0.
1	JAN	0730	91	9.	*	1	JAN	1755	216	19.	*	2	JAN	0420	341	0.	*	2	JAN	1445	466	0.
1	JAN	0735	92	9.	*	1	JAN	1800	217	18.	*	2	JAN	0425	342	0.	*	2	JAN	1450	467	0.
1	JAN	0740	93	9.	*	1	JAN	1805	218	17.	*	2	JAN	0430	343	0.	*	2	JAN	1455	468	0.
1	JAN	0745	94	9.	*	1	JAN	1810	219	15.	*	2	JAN	0435	344	0.	*	2	JAN	1500	469	0.
1	JAN	0750	95	9.	*	1	JAN	1815	220	14.	*	2	JAN	0440	345	0.	*	2	JAN	1505	470	0.
1	JAN	0755	96	9.	*	1	JAN	1820	221	13.	*	2	JAN	0445	346	0.	*	2	JAN	1510	471	0.
1	JAN	0800	97	9.	*	1	JAN	1825	222	12.	*	2	JAN	0450	347	0.	*	2	JAN	1515	472	0.
1	JAN	0805	98	9.	*	1	JAN	1830	223	11.	*	2	JAN	0455	348	0.	*	2	JAN	1520	473	0.
1	JAN	0810	99	9.	*	1	JAN	1835	224	10.	*	2	JAN	0500	349	0.	*	2	JAN	1525	474	0.
1	JAN	0815	100	9.	*	1	JAN	1840	225	10.	*	2	JAN	0505	350	0.	*	2	JAN	1530	475	0.
1	JAN	0820	101	10.	*	1	JAN	1845	226	10.	*	2	JAN	0510	351	0.	*	2	JAN	1535	476	0.
1	JAN	0825	102	10.	*	1	JAN	1850	227	9.	*	2	JAN	0515	352	0.	*	2	JAN	1540	477	0.
1	JAN	0830	103	10.	*	1	JAN	1855	228	9.	*	2	JAN	0520	353	0.	*	2	JAN	1545	478	0.
1	JAN	0835	104	10.	*	1	JAN	1900	229	9.	*	2	JAN	0525	354	0.	*	2	JAN	1550	479	0.
1	JAN	0840	105	11.	*	1	JAN	1905	230	9.	*	2	JAN	0530	355	0.	*	2	JAN	1555	480	0.
1	JAN	0845	106	11.	*	1	JAN	1910	231	9.	*	2	JAN	0535	356	0.	*	2	JAN	1600	481	0.
1	JAN	0850	107	11.	*	1	JAN	1915	232	9.	*	2	JAN	0540	357	0.	*	2	JAN	1605	482	0.
1	JAN	0855	108	11.	*	1	JAN	1920	233	9.	*	2	JAN	0545	358	0.	*	2	JAN	1610	483	0.
1	JAN	0900	109	11.	*	1	JAN	1925	234	9.	*	2	JAN	0550	359	0.	*	2	JAN	1615	484	0.
1	JAN	0905	110	11.	*	1	JAN	1930	235	9.	*	2	JAN	0555	360	0.	*	2	JAN	1620	485	0.
1	JAN	0910	111	12.	*	1	JAN	1935	236	9.	*	2	JAN	0600	361	0.	*	2	JAN	1625	486	0.
1	JAN	0915	112	12.	*	1	JAN	1940	237	8.	*	2	JAN	0605	362	0.	*	2	JAN	1630	487	0.
1	JAN	0920	113	12.	*	1	JAN	1945	238	8.	*	2	JAN	0610	363	0.	*	2	JAN	1635	488	0.
1	JAN	0925	114	12.	*	1	JAN	1950	239	8.	*	2	JAN	0615	364	0.	*	2	JAN	1640	489	0.
1	JAN	0930	115	12.	*	1	JAN	1955	240	8.	*	2	JAN	0620	365	0.	*	2	JAN	1645	490	0.
1	JAN	0935	116	13.	*	1	JAN	2000	241	8.	*	2	JAN	0625	366	0.	*	2	JAN	1650	491	0.
1	JAN	0940	117	13.	*	1	JAN	2005	242	8.	*	2	JAN	0630	367	0.	*	2	JAN	1655	492	0.
1	JAN	0945	118	13.	*	1	JAN	2010	243	8.	*	2	JAN	0635	368	0.	*	2	JAN	1700	493	0.
1	JAN	0950	119	13.	*	1	JAN	2015	244	8.	*	2	JAN	0640	369	0.	*	2	JAN	1705	494	0.
1	JAN	0955	120	14.	*	1	JAN	2020	245	7.	*	2	JAN	0645	370	0.	*	2	JAN	1710	495	0.
1	JAN	1000	121	14.	*	1	JAN	2025	246	7.	*	2	JAN	0650	371	0.	*	2	JAN	1715	496	0.
1	JAN	1005	122	14.	*	1	JAN	2030	247	7.	*	2	JAN	0655	372	0.	*	2	JAN	1720	497	0.
1	JAN	1010	123	14.	*	1	JAN	2035	248	7.	*	2	JAN	0700	373	0.	*	2	JAN	1725	498	0.
1	JAN	1015	124	15.	*	1	JAN	2040	249	7.	*	2	JAN	0705	374	0.	*	2	JAN	1730	499	0.
1	JAN	1020	125	16.	*	1	JAN	2045	250	7.	*	2	JAN	0710	375	0.	*	2	JAN	1735	500	0.
					*						*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2837.	12.33		498.	131.	76.	76.
		(INCHES)	1.806	1.903	1.906	1.906
		(AC-FT)	247.	260.	261.	261.

CUMULATIVE AREA = 2.57 SQ MI

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HYDROGRAPH AT C002L

TRANSPOSITION AREA 90.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	17.	1 JAN 2050	251	7.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	22.	1 JAN 2055	252	7.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	28.	1 JAN 2100	253	7.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	38.	1 JAN 2105	254	7.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	49.	1 JAN 2110	255	7.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	63.	1 JAN 2115	256	7.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	78.	1 JAN 2120	257	7.	2 JAN 0745	382	0.
1 JAN 0035	8	2.	1 JAN 1100	133	95.	1 JAN 2125	258	6.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	112.	1 JAN 2130	259	6.	2 JAN 0755	384	0.
1 JAN 0045	10	2.	1 JAN 1110	135	129.	1 JAN 2135	260	6.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	147.	1 JAN 2140	261	6.	2 JAN 0805	386	0.
1 JAN 0055	12	3.	1 JAN 1120	137	166.	1 JAN 2145	262	6.	2 JAN 0810	387	0.
1 JAN 0100	13	3.	1 JAN 1125	138	185.	1 JAN 2150	263	6.	2 JAN 0815	388	0.
1 JAN 0105	14	3.	1 JAN 1130	139	207.	1 JAN 2155	264	6.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	249.	1 JAN 2200	265	6.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	329.	1 JAN 2205	266	6.	2 JAN 0830	391	0.
1 JAN 0120	17	3.	1 JAN 1145	142	469.	1 JAN 2210	267	6.	2 JAN 0835	392	0.
1 JAN 0125	18	3.	1 JAN 1150	143	699.	1 JAN 2215	268	6.	2 JAN 0840	393	0.
1 JAN 0130	19	3.	1 JAN 1155	144	1033.	1 JAN 2220	269	6.	2 JAN 0845	394	0.
1 JAN 0135	20	3.	1 JAN 1200	145	1501.	1 JAN 2225	270	6.	2 JAN 0850	395	0.
1 JAN 0140	21	3.	1 JAN 1205	146	1993.	1 JAN 2230	271	6.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	2442.	1 JAN 2235	272	6.	2 JAN 0900	397	0.
1 JAN 0150	23	4.	1 JAN 1215	148	2731.	1 JAN 2240	273	6.	2 JAN 0905	398	0.
1 JAN 0155	24	4.	1 JAN 1220	149	2784.	1 JAN 2245	274	6.	2 JAN 0910	399	0.
1 JAN 0200	25	4.	1 JAN 1225	150	2597.	1 JAN 2250	275	6.	2 JAN 0915	400	0.
1 JAN 0205	26	4.	1 JAN 1230	151	2297.	1 JAN 2255	276	6.	2 JAN 0920	401	0.
1 JAN 0210	27	4.	1 JAN 1235	152	2042.	1 JAN 2300	277	6.	2 JAN 0925	402	0.
1 JAN 0215	28	4.	1 JAN 1240	153	1823.	1 JAN 2305	278	6.	2 JAN 0930	403	0.
1 JAN 0220	29	4.	1 JAN 1245	154	1611.	1 JAN 2310	279	6.	2 JAN 0935	404	0.
1 JAN 0225	30	5.	1 JAN 1250	155	1391.	1 JAN 2315	280	6.	2 JAN 0940	405	0.
1 JAN 0230	31	5.	1 JAN 1255	156	1152.	1 JAN 2320	281	6.	2 JAN 0945	406	0.
1 JAN 0235	32	5.	1 JAN 1300	157	881.	1 JAN 2325	282	6.	2 JAN 0950	407	0.
1 JAN 0240	33	5.	1 JAN 1305	158	697.	1 JAN 2330	283	6.	2 JAN 0955	408	0.
1 JAN 0245	34	5.	1 JAN 1310	159	568.	1 JAN 2335	284	6.	2 JAN 1000	409	0.
1 JAN 0250	35	5.	1 JAN 1315	160	474.	1 JAN 2340	285	6.	2 JAN 1005	410	0.
1 JAN 0255	36	5.	1 JAN 1320	161	414.	1 JAN 2345	286	6.	2 JAN 1010	411	0.
1 JAN 0300	37	5.	1 JAN 1325	162	352.	1 JAN 2350	287	6.	2 JAN 1015	412	0.
1 JAN 0305	38	5.	1 JAN 1330	163	299.	1 JAN 2355	288	6.	2 JAN 1020	413	0.
1 JAN 0310	39	5.	1 JAN 1335	164	252.	2 JAN 0000	289	6.	2 JAN 1025	414	0.
1 JAN 0315	40	5.	1 JAN 1340	165	225.	2 JAN 0005	290	5.	2 JAN 1030	415	0.
1 JAN 0320	41	5.	1 JAN 1345	166	201.	2 JAN 0010	291	5.	2 JAN 1035	416	0.
1 JAN 0325	42	5.	1 JAN 1350	167	180.	2 JAN 0015	292	5.	2 JAN 1040	417	0.
1 JAN 0330	43	6.	1 JAN 1355	168	162.	2 JAN 0020	293	4.	2 JAN 1045	418	0.
1 JAN 0335	44	6.	1 JAN 1400	169	147.	2 JAN 0025	294	4.	2 JAN 1050	419	0.
1 JAN 0340	45	6.	1 JAN 1405	170	134.	2 JAN 0030	295	4.	2 JAN 1055	420	0.
1 JAN 0345	46	6.	1 JAN 1410	171	123.	2 JAN 0035	296	3.	2 JAN 1100	421	0.
1 JAN 0350	47	6.	1 JAN 1415	172	114.	2 JAN 0040	297	3.	2 JAN 1105	422	0.
1 JAN 0355	48	6.	1 JAN 1420	173	105.	2 JAN 0045	298	3.	2 JAN 1110	423	0.
1 JAN 0400	49	6.	1 JAN 1425	174	97.	2 JAN 0050	299	3.	2 JAN 1115	424	0.
1 JAN 0405	50	6.	1 JAN 1430	175	89.	2 JAN 0055	300	3.	2 JAN 1120	425	0.
1 JAN 0410	51	6.	1 JAN 1435	176	82.	2 JAN 0100	301	3.	2 JAN 1125	426	0.
1 JAN 0415	52	6.	1 JAN 1440	177	76.	2 JAN 0105	302	3.	2 JAN 1130	427	0.
1 JAN 0420	53	6.	1 JAN 1445	178	69.	2 JAN 0110	303	3.	2 JAN 1135	428	0.
1 JAN 0425	54	6.	1 JAN 1450	179	63.	2 JAN 0115	304	3.	2 JAN 1140	429	0.
1 JAN 0430	55	7.	1 JAN 1455	180	58.	2 JAN 0120	305	2.	2 JAN 1145	430	0.
1 JAN 0435	56	7.	1 JAN 1500	181	54.	2 JAN 0125	306	2.	2 JAN 1150	431	0.
1 JAN 0440	57	7.	1 JAN 1505	182	51.	2 JAN 0130	307	2.	2 JAN 1155	432	0.
1 JAN 0445	58	7.	1 JAN 1510	183	49.	2 JAN 0135	308	2.	2 JAN 1200	433	0.
1 JAN 0450	59	7.	1 JAN 1515	184	47.	2 JAN 0140	309	2.	2 JAN 1205	434	0.
1 JAN 0455	60	7.	1 JAN 1520	185	46.	2 JAN 0145	310	2.	2 JAN 1210	435	0.
1 JAN 0500	61	7.	1 JAN 1525	186	45.	2 JAN 0150	311	2.	2 JAN 1215	436	0.
1 JAN 0505	62	7.	1 JAN 1530	187	43.	2 JAN 0155	312	2.	2 JAN 1220	437	0.
1 JAN 0510	63	7.	1 JAN 1535	188	41.	2 JAN 0200	313	2.	2 JAN 1225	438	0.
1 JAN 0515	64	7.	1 JAN 1540	189	38.	2 JAN 0205	314	1.	2 JAN 1230	439	0.
1 JAN 0520	65	7.	1 JAN 1545	190	36.	2 JAN 0210	315	1.	2 JAN 1235	440	0.
1 JAN 0525	66	7.	1 JAN 1550	191	34.	2 JAN 0215	316	1.	2 JAN 1240	441	0.
1 JAN 0530	67	7.	1 JAN 1555	192	33.	2 JAN 0220	317	1.	2 JAN 1245	442	0.
1 JAN 0535	68	7.	1 JAN 1600	193	32.	2 JAN 0225	318	1.	2 JAN 1250	443	0.
1 JAN 0540	69	7.	1 JAN 1605	194	32.	2 JAN 0230	319	1.	2 JAN 1255	444	0.
1 JAN 0545	70	7.	1 JAN 1610	195	32.	2 JAN 0235	320	1.	2 JAN 1300	445	0.
1 JAN 0550	71	7.	1 JAN 1615	196	31.	2 JAN 0240	321	1.	2 JAN 1305	446	0.
1 JAN 0555	72	7.	1 JAN 1620	197	31.	2 JAN 0245	322	1.	2 JAN 1310	447	0.
1 JAN 0600	73	7.	1 JAN 1625	198	31.	2 JAN 0250	323	0.	2 JAN 1315	448	0.
1 JAN 0605	74	7.	1 JAN 1630	199	32.	2 JAN 0255	324	0.	2 JAN 1320	449	0.
1 JAN 0610	75	7.	1 JAN 1635	200	31.	2 JAN 0300	325	0.	2 JAN 1325	450	0.
1 JAN 0615	76	7.	1 JAN 1640	201	31.	2 JAN 0305	326	0.	2 JAN 1330	451	0.
1 JAN 0620	77	8.	1 JAN 1645	202	29.	2 JAN 0310	327	0.	2 JAN 1335	452	0.
1 JAN 0625	78	8.	1 JAN 1650	203	27.	2 JAN 0315	328	0.	2 JAN 1340	453	0.
1 JAN 0630	79	8.	1 JAN 1655	204	25.	2 JAN 0320	329	0.	2 JAN 1345	454	0.
1 JAN 0635	80	8.	1 JAN 1700	205	23.	2 JAN 0325	330	0.	2 JAN 1350	455	0.
1 JAN 0640	81	8.	1 JAN 1705	206	21.	2 JAN 0330	331	0.	2 JAN 1355	456	0.
1 JAN 0645	82	8.	1 JAN 1710	207	20.	2 JAN 0335	332	0.	2 JAN 1400	457	0.
1 JAN 0650	83	8.	1 JAN 1715	208	19.	2 JAN 0340	333	0.	2 JAN 1405	458	0.
1 JAN 0655	84	8.	1 JAN 1720	209	19.	2 JAN 0345	334	0.	2 JAN 1410	459	0.
1 JAN 0700	85	8.	1 JAN 1725	210	18.	2 JAN 0350	335	0.	2 JAN 1415	460	0.
1 JAN 0705	86	8.	1 JAN 1730	211	18.	2 JAN 0355	336	0.	2 JAN 1420	461	0.
1 JAN 0710	87	9.	1 JAN 1735	212	18.	2 JAN 0400	337	0.	2 JAN 1425	462	0.
1 JAN 0715	88	9.	1 JAN 1740	213	18.	2 JAN 0405	338	0.	2 JAN 1430	463	0.
1 JAN 0720	89	9.	1 JAN 1745	214	18.	2 JAN 0410	339	0.	2 JAN 1435	464	0.
1 JAN 0725	90	9.	1 JAN 1750	215	18.	2 JAN 0415	340	0.	2 JAN 1440	465	0.
1 JAN 0730	91	9.	1 JAN 1755	216	18.	2 JAN 0420	341	0.	2 JAN 1445	466	0.
1 JAN 0735	92	9.	1 JAN 1800	217	17.	2 JAN 0425	342	0.	2 JAN 1450	467	0.
1 JAN 0740	93	9.	1 JAN 1805	218	16.	2 JAN 0430	343	0.	2 JAN 1455	468	0.
1 JAN 0745	94	9.	1 JAN 1810	219	14.	2 JAN 0435	344	0.	2 JAN 1500	469	0.
1 JAN 0750	95	9.	1 JAN 1815	220	13.	2 JAN 0440	345	0.	2 JAN 1505	470	0.
1 JAN 0755	96	9.	1 JAN 1820	221	12.	2 JAN 0445	346	0.	2 JAN 1510	471	0.
1 JAN 0800	97	9.	1 JAN 1825	222	11.	2 JAN 0450	347	0.	2 JAN 1515	472	0.
1 JAN 0805	98	9.	1 JAN 1830	223	11.	2 JAN 0455	348	0.	2 JAN 1520	473	0.
1 JAN 0810	99	9.	1 JAN 1835	224	10.	2 JAN 0500	349	0.	2 JAN 1525	474	0.
1 JAN 0815	100	9.	1 JAN 1840	225	10.	2 JAN 0505	350	0.	2 JAN 1530	475	0.

1 JAN 0820	101	9.	*	1 JAN 1845	226	9.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.		
1 JAN 0825	102	10.	*	1 JAN 1850	227	9.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.		
1 JAN 0830	103	10.	*	1 JAN 1855	228	9.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.		
1 JAN 0835	104	10.	*	1 JAN 1900	229	9.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.		
1 JAN 0840	105	10.	*	1 JAN 1905	230	9.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.		
1 JAN 0845	106	11.	*	1 JAN 1910	231	9.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.		
1 JAN 0850	107	11.	*	1 JAN 1915	232	9.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.		
1 JAN 0855	108	11.	*	1 JAN 1920	233	9.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.		
1 JAN 0900	109	11.	*	1 JAN 1925	234	9.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.		
1 JAN 0905	110	11.	*	1 JAN 1930	235	8.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.		
1 JAN 0910	111	11.	*	1 JAN 1935	236	8.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.		
1 JAN 0915	112	12.	*	1 JAN 1940	237	8.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.		
1 JAN 0920	113	12.	*	1 JAN 1945	238	8.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.		
1 JAN 0925	114	12.	*	1 JAN 1950	239	8.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.		
1 JAN 0930	115	12.	*	1 JAN 1955	240	8.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.		
1 JAN 0935	116	12.	*	1 JAN 2000	241	8.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.		
1 JAN 0940	117	13.	*	1 JAN 2005	242	8.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.		
1 JAN 0945	118	13.	*	1 JAN 2010	243	8.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.		
1 JAN 0950	119	13.	*	1 JAN 2015	244	7.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.		
1 JAN 0955	120	13.	*	1 JAN 2020	245	7.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.		
1 JAN 1000	121	14.	*	1 JAN 2025	246	7.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.		
1 JAN 1005	122	14.	*	1 JAN 2030	247	7.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.		
1 JAN 1010	123	14.	*	1 JAN 2035	248	7.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.		
1 JAN 1015	124	14.	*	1 JAN 2040	249	7.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.		
1 JAN 1020	125	15.	*	1 JAN 2045	250	7.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.		

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
2784.	12.33	487.	128.	74.	74.
		(INCHES) 1.764	1.857	1.860	1.860
		(AC-FT) 241.	254.	255.	255.

CUMULATIVE AREA = 2.57 SQ MI

INTERPOLATED HYDROGRAPH AT C002L

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	51.	*	1 JAN 2050	251	8.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	61.	*	1 JAN 2055	252	8.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	71.	*	1 JAN 2100	253	8.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	84.	*	1 JAN 2105	254	8.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	98.	*	1 JAN 2110	255	8.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	114.	*	1 JAN 2115	256	8.	*	2 JAN 0740	381	0.
1 JAN 0030	7	2.	*	1 JAN 1055	132	131.	*	1 JAN 2120	257	8.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	150.	*	1 JAN 2125	258	7.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	169.	*	1 JAN 2130	259	7.	*	2 JAN 0755	384	0.
1 JAN 0045	10	3.	*	1 JAN 1110	135	188.	*	1 JAN 2135	260	7.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	208.	*	1 JAN 2140	261	7.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	229.	*	1 JAN 2145	262	7.	*	2 JAN 0810	387	0.
1 JAN 0100	13	3.	*	1 JAN 1125	138	251.	*	1 JAN 2150	263	7.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	276.	*	1 JAN 2155	264	7.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	324.	*	1 JAN 2200	265	7.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	414.	*	1 JAN 2205	266	7.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	575.	*	1 JAN 2210	267	7.	*	2 JAN 0835	392	0.
1 JAN 0125	18	4.	*	1 JAN 1150	143	841.	*	1 JAN 2215	268	7.	*	2 JAN 0840	393	0.
1 JAN 0130	19	4.	*	1 JAN 1155	144	1227.	*	1 JAN 2220	269	7.	*	2 JAN 0845	394	0.
1 JAN 0135	20	4.	*	1 JAN 1200	145	1772.	*	1 JAN 2225	270	7.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	2355.	*	1 JAN 2230	271	7.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2896.	*	1 JAN 2235	272	7.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	3236.	*	1 JAN 2240	273	7.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	3267.	*	1 JAN 2245	274	7.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	3012.	*	1 JAN 2250	275	7.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	2689.	*	1 JAN 2255	276	7.	*	2 JAN 0920	401	0.
1 JAN 0210	27	5.	*	1 JAN 1235	152	2410.	*	1 JAN 2300	277	7.	*	2 JAN 0925	402	0.
1 JAN 0215	28	5.	*	1 JAN 1240	153	2166.	*	1 JAN 2305	278	7.	*	2 JAN 0930	403	0.
1 JAN 0220	29	5.	*	1 JAN 1245	154	1927.	*	1 JAN 2310	279	7.	*	2 JAN 0935	404	0.
1 JAN 0225	30	5.	*	1 JAN 1250	155	1687.	*	1 JAN 2315	280	7.	*	2 JAN 0940	405	0.
1 JAN 0230	31	5.	*	1 JAN 1255	156	1439.	*	1 JAN 2320	281	7.	*	2 JAN 0945	406	0.
1 JAN 0235	32	6.	*	1 JAN 1300	157	1183.	*	1 JAN 2325	282	7.	*	2 JAN 0950	407	0.
1 JAN 0240	33	6.	*	1 JAN 1305	158	899.	*	1 JAN 2330	283	7.	*	2 JAN 0955	408	0.
1 JAN 0245	34	6.	*	1 JAN 1310	159	712.	*	1 JAN 2335	284	7.	*	2 JAN 1000	409	0.
1 JAN 0250	35	6.	*	1 JAN 1315	160	589.	*	1 JAN 2340	285	7.	*	2 JAN 1005	410	0.
1 JAN 0255	36	6.	*	1 JAN 1320	161	512.	*	1 JAN 2345	286	7.	*	2 JAN 1010	411	0.
1 JAN 0300	37	6.	*	1 JAN 1325	162	438.	*	1 JAN 2350	287	7.	*	2 JAN 1015	412	0.
1 JAN 0305	38	6.	*	1 JAN 1330	163	373.	*	1 JAN 2355	288	7.	*	2 JAN 1020	413	0.
1 JAN 0310	39	6.	*	1 JAN 1335	164	318.	*	2 JAN 0000	289	6.	*	2 JAN 1025	414	0.
1 JAN 0315	40	6.	*	1 JAN 1340	165	285.	*	2 JAN 0005	290	6.	*	2 JAN 1030	415	0.
1 JAN 0320	41	6.	*	1 JAN 1345	166	255.	*	2 JAN 0010	291	6.	*	2 JAN 1035	416	0.
1 JAN 0325	42	6.	*	1 JAN 1350	167	230.	*	2 JAN 0015	292	6.	*	2 JAN 1040	417	0.
1 JAN 0330	43	6.	*	1 JAN 1355	168	209.	*	2 JAN 0020	293	5.	*	2 JAN 1045	418	0.
1 JAN 0335	44	6.	*	1 JAN 1400	169	190.	*	2 JAN 0025	294	5.	*	2 JAN 1050	419	0.
1 JAN 0340	45	6.	*	1 JAN 1405	170	174.	*	2 JAN 0030	295	4.	*	2 JAN 1055	420	0.
1 JAN 0345	46	6.	*	1 JAN 1410	171	161.	*	2 JAN 0035	296	4.	*	2 JAN 1100	421	0.
1 JAN 0350	47	7.	*	1 JAN 1415	172	149.	*	2 JAN 0040	297	4.	*	2 JAN 1105	422	0.
1 JAN 0355	48	7.	*	1 JAN 1420	173	139.	*	2 JAN 0045	298	4.	*	2 JAN 1110	423	0.
1 JAN 0400	49	7.	*	1 JAN 1425	174	130.	*	2 JAN 0050	299	3.	*	2 JAN 1115	424	0.
1 JAN 0405	50	7.	*	1 JAN 1430	175	121.	*	2 JAN 0055	300	3.	*	2 JAN 1120	425	0.
1 JAN 0410	51	7.	*	1 JAN 1435	176	113.	*	2 JAN 0100	301	3.	*	2 JAN 1125	426	0.
1 JAN 0415	52	7.	*	1 JAN 1440	177	105.	*	2 JAN 0105	302	3.	*	2 JAN 1130	427	0.
1 JAN 0420	53	7.	*	1 JAN 1445	178	97.	*	2 JAN 0110	303	3.	*	2 JAN 1135	428	0.
1 JAN 0425	54	7.	*	1 JAN 1450	179	91.	*	2 JAN 0115	304	3.	*	2 JAN 1140	429	0.
1 JAN 0430	55	8.	*	1 JAN 1455	180	84.	*	2 JAN 0120	305	3.	*	2 JAN 1145	430	0.
1 JAN 0435	56	8.	*	1 JAN 1500	181	79.	*	2 JAN 0125	306	3.	*	2 JAN 1150	431	0.
1 JAN 0440	57	8.	*	1 JAN 1505	182	75.	*	2 JAN 0130	307	3.	*	2 JAN 1155	432	0.
1 JAN 0445	58	8.	*	1 JAN 1510	183	73.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.
1 JAN 0450	59	8.	*	1 JAN 1515	184	71.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.

1 JAN	0455	60	8.	*	1 JAN	1520	185	69.	*	2 JAN	0145	310	2.	*	2 JAN	1210	435	0.
1 JAN	0500	61	8.	*	1 JAN	1525	186	67.	*	2 JAN	0150	311	2.	*	2 JAN	1215	436	0.
1 JAN	0505	62	8.	*	1 JAN	1530	187	65.	*	2 JAN	0155	312	2.	*	2 JAN	1220	437	0.
1 JAN	0510	63	8.	*	1 JAN	1535	188	62.	*	2 JAN	0200	313	2.	*	2 JAN	1225	438	0.
1 JAN	0515	64	8.	*	1 JAN	1540	189	59.	*	2 JAN	0205	314	2.	*	2 JAN	1230	439	0.
1 JAN	0520	65	8.	*	1 JAN	1545	190	56.	*	2 JAN	0210	315	1.	*	2 JAN	1235	440	0.
1 JAN	0525	66	8.	*	1 JAN	1550	191	54.	*	2 JAN	0215	316	1.	*	2 JAN	1240	441	0.
1 JAN	0530	67	8.	*	1 JAN	1555	192	52.	*	2 JAN	0220	317	1.	*	2 JAN	1245	442	0.
1 JAN	0535	68	8.	*	1 JAN	1600	193	51.	*	2 JAN	0225	318	1.	*	2 JAN	1250	443	0.
1 JAN	0540	69	8.	*	1 JAN	1605	194	51.	*	2 JAN	0230	319	1.	*	2 JAN	1255	444	0.
1 JAN	0545	70	8.	*	1 JAN	1610	195	50.	*	2 JAN	0235	320	1.	*	2 JAN	1300	445	0.
1 JAN	0550	71	8.	*	1 JAN	1615	196	50.	*	2 JAN	0240	321	1.	*	2 JAN	1305	446	0.
1 JAN	0555	72	8.	*	1 JAN	1620	197	50.	*	2 JAN	0245	322	1.	*	2 JAN	1310	447	0.
1 JAN	0600	73	8.	*	1 JAN	1625	198	50.	*	2 JAN	0250	323	1.	*	2 JAN	1315	448	0.
1 JAN	0605	74	8.	*	1 JAN	1630	199	50.	*	2 JAN	0255	324	1.	*	2 JAN	1320	449	0.
1 JAN	0610	75	8.	*	1 JAN	1635	200	50.	*	2 JAN	0300	325	0.	*	2 JAN	1325	450	0.
1 JAN	0615	76	9.	*	1 JAN	1640	201	49.	*	2 JAN	0305	326	0.	*	2 JAN	1330	451	0.
1 JAN	0620	77	9.	*	1 JAN	1645	202	47.	*	2 JAN	0310	327	0.	*	2 JAN	1335	452	0.
1 JAN	0625	78	9.	*	1 JAN	1650	203	45.	*	2 JAN	0315	328	0.	*	2 JAN	1340	453	0.
1 JAN	0630	79	9.	*	1 JAN	1655	204	42.	*	2 JAN	0320	329	0.	*	2 JAN	1345	454	0.
1 JAN	0635	80	9.	*	1 JAN	1700	205	40.	*	2 JAN	0325	330	0.	*	2 JAN	1350	455	0.
1 JAN	0640	81	10.	*	1 JAN	1705	206	38.	*	2 JAN	0330	331	0.	*	2 JAN	1355	456	0.
1 JAN	0645	82	10.	*	1 JAN	1710	207	36.	*	2 JAN	0335	332	0.	*	2 JAN	1400	457	0.
1 JAN	0650	83	10.	*	1 JAN	1715	208	35.	*	2 JAN	0340	333	0.	*	2 JAN	1405	458	0.
1 JAN	0655	84	10.	*	1 JAN	1720	209	35.	*	2 JAN	0345	334	0.	*	2 JAN	1410	459	0.
1 JAN	0700	85	10.	*	1 JAN	1725	210	34.	*	2 JAN	0350	335	0.	*	2 JAN	1415	460	0.
1 JAN	0705	86	10.	*	1 JAN	1730	211	34.	*	2 JAN	0355	336	0.	*	2 JAN	1420	461	0.
1 JAN	0710	87	10.	*	1 JAN	1735	212	34.	*	2 JAN	0400	337	0.	*	2 JAN	1425	462	0.
1 JAN	0715	88	10.	*	1 JAN	1740	213	34.	*	2 JAN	0405	338	0.	*	2 JAN	1430	463	0.
1 JAN	0720	89	10.	*	1 JAN	1745	214	34.	*	2 JAN	0410	339	0.	*	2 JAN	1435	464	0.
1 JAN	0725	90	10.	*	1 JAN	1750	215	34.	*	2 JAN	0415	340	0.	*	2 JAN	1440	465	0.
1 JAN	0730	91	10.	*	1 JAN	1755	216	33.	*	2 JAN	0420	341	0.	*	2 JAN	1445	466	0.
1 JAN	0735	92	10.	*	1 JAN	1800	217	31.	*	2 JAN	0425	342	0.	*	2 JAN	1450	467	0.
1 JAN	0740	93	10.	*	1 JAN	1805	218	29.	*	2 JAN	0430	343	0.	*	2 JAN	1455	468	0.
1 JAN	0745	94	10.	*	1 JAN	1810	219	26.	*	2 JAN	0435	344	0.	*	2 JAN	1500	469	0.
1 JAN	0750	95	10.	*	1 JAN	1815	220	23.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.
1 JAN	0755	96	10.	*	1 JAN	1820	221	21.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.
1 JAN	0800	97	10.	*	1 JAN	1825	222	20.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.
1 JAN	0805	98	10.	*	1 JAN	1830	223	19.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.
1 JAN	0810	99	11.	*	1 JAN	1835	224	18.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.
1 JAN	0815	100	11.	*	1 JAN	1840	225	18.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.
1 JAN	0820	101	11.	*	1 JAN	1845	226	18.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.
1 JAN	0825	102	11.	*	1 JAN	1850	227	17.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.
1 JAN	0830	103	12.	*	1 JAN	1855	228	17.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.
1 JAN	0835	104	12.	*	1 JAN	1900	229	17.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.
1 JAN	0840	105	12.	*	1 JAN	1905	230	17.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.
1 JAN	0845	106	12.	*	1 JAN	1910	231	17.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.
1 JAN	0850	107	13.	*	1 JAN	1915	232	17.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	13.	*	1 JAN	1920	233	17.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	13.	*	1 JAN	1925	234	18.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	13.	*	1 JAN	1930	235	18.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	13.	*	1 JAN	1935	236	18.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	13.	*	1 JAN	1940	237	18.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	14.	*	1 JAN	1945	238	18.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	14.	*	1 JAN	1950	239	18.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	14.	*	1 JAN	1955	240	17.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	14.	*	1 JAN	2000	241	17.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	15.	*	1 JAN	2005	242	15.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	17.	*	1 JAN	2010	243	14.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	19.	*	1 JAN	2015	244	12.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	21.	*	1 JAN	2020	245	11.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	25.	*	1 JAN	2025	246	10.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	28.	*	1 JAN	2030	247	9.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	33.	*	1 JAN	2035	248	9.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	38.	*	1 JAN	2040	249	9.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	44.	*	1 JAN	2045	250	8.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 3267.	12.33		596.	159.	92.	92.
		(INCHES)	2.159	2.298	2.301	2.301
		(AC-FT)	295.	314.	315.	315.

CUMULATIVE AREA = 2.57 SQ MI

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          **************
          *            *
98 KK     *     C002   *
          *            *
          **************
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99 KO          OUTPUT CONTROL VARIABLES
                    IPRNT          1  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        500  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


101 HC         HYDROGRAPH COMBINATION
                    ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT C002
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	74.	1	JAN	2050	251	13.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	84.	1	JAN	2055	252	13.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	96.	1	JAN	2100	253	13.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	110.	1	JAN	2105	254	13.	2	JAN	0730	379	0.
1	JAN	0020	5	2.	1	JAN	1045	130	129.	1	JAN	2110	255	13.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	152.	1	JAN	2115	256	13.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	178.	1	JAN	2120	257	13.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	208.	1	JAN	2125	258	13.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	241.	1	JAN	2130	259	13.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	277.	1	JAN	2135	260	13.	2	JAN	0800	385	0.
1	JAN	0050	11	7.	1	JAN	1115	136	314.	1	JAN	2140	261	12.	2	JAN	0805	386	0.
1	JAN	0055	12	7.	1	JAN	1120	137	355.	1	JAN	2145	262	12.	2	JAN	0810	387	0.
1	JAN	0100	13	8.	1	JAN	1125	138	397.	1	JAN	2150	263	12.	2	JAN	0815	388	0.
1	JAN	0105	14	8.	1	JAN	1130	139	443.	1	JAN	2155	264	12.	2	JAN	0820	389	0.
1	JAN	0110	15	8.	1	JAN	1135	140	544.	1	JAN	2200	265	12.	2	JAN	0825	390	0.
1	JAN	0115	16	8.	1	JAN	1140	141	728.	1	JAN	2205	266	12.	2	JAN	0830	391	0.
1	JAN	0120	17	8.	1	JAN	1145	142	1064.	1	JAN	2210	267	12.	2	JAN	0835	392	0.
1	JAN	0125	18	9.	1	JAN	1150	143	1638.	1	JAN	2215	268	12.	2	JAN	0840	393	0.
1	JAN	0130	19	9.	1	JAN	1155	144	2467.	1	JAN	2220	269	12.	2	JAN	0845	394	0.
1	JAN	0135	20	9.	1	JAN	1200	145	3648.	1	JAN	2225	270	12.	2	JAN	0850	395	0.
1	JAN	0140	21	9.	1	JAN	1205	146	4900.	1	JAN	2230	271	12.	2	JAN	0855	396	0.
1	JAN	0145	22	9.	1	JAN	1210	147	6045.	1	JAN	2235	272	12.	2	JAN	0900	397	0.
1	JAN	0150	23	9.	1	JAN	1215	148	6701.	1	JAN	2240	273	12.	2	JAN	0905	398	0.
1	JAN	0155	24	9.	1	JAN	1220	149	6722.	1	JAN	2245	274	12.	2	JAN	0910	399	0.
1	JAN	0200	25	10.	1	JAN	1225	150	6180.	1	JAN	2250	275	12.	2	JAN	0915	400	0.
1	JAN	0205	26	10.	1	JAN	1230	151	5409.	1	JAN	2255	276	12.	2	JAN	0920	401	0.
1	JAN	0210	27	10.	1	JAN	1235	152	4654.	1	JAN	2300	277	12.	2	JAN	0925	402	0.
1	JAN	0215	28	10.	1	JAN	1240	153	3989.	1	JAN	2305	278	12.	2	JAN	0930	403	0.
1	JAN	0220	29	10.	1	JAN	1245	154	3406.	1	JAN	2310	279	12.	2	JAN	0935	404	0.
1	JAN	0225	30	10.	1	JAN	1250	155	2891.	1	JAN	2315	280	12.	2	JAN	0940	405	0.
1	JAN	0230	31	11.	1	JAN	1255	156	2431.	1	JAN	2320	281	12.	2	JAN	0945	406	0.
1	JAN	0235	32	11.	1	JAN	1300	157	2005.	1	JAN	2325	282	12.	2	JAN	0950	407	0.
1	JAN	0240	33	11.	1	JAN	1305	158	1588.	1	JAN	2330	283	12.	2	JAN	0955	408	0.
1	JAN	0245	34	11.	1	JAN	1310	159	1273.	1	JAN	2335	284	12.	2	JAN	1000	409	0.
1	JAN	0250	35	11.	1	JAN	1315	160	1068.	1	JAN	2340	285	12.	2	JAN	1005	410	0.
1	JAN	0255	36	11.	1	JAN	1320	161	916.	1	JAN	2345	286	12.	2	JAN	1010	411	0.
1	JAN	0300	37	11.	1	JAN	1325	162	779.	1	JAN	2350	287	12.	2	JAN	1015	412	0.
1	JAN	0305	38	11.	1	JAN	1330	163	660.	1	JAN	2355	288	12.	2	JAN	1020	413	0.
1	JAN	0310	39	11.	1	JAN	1335	164	568.	2	JAN	0000	289	11.	2	JAN	1025	414	0.
1	JAN	0315	40	11.	1	JAN	1340	165	511.	2	JAN	0005	290	11.	2	JAN	1030	415	0.
1	JAN	0320	41	11.	1	JAN	1345	166	460.	2	JAN	0010	291	10.	2	JAN	1035	416	0.
1	JAN	0325	42	11.	1	JAN	1350	167	405.	2	JAN	0015	292	9.	2	JAN	1040	417	0.
1	JAN	0330	43	11.	1	JAN	1355	168	357.	2	JAN	0020	293	8.	2	JAN	1045	418	0.
1	JAN	0335	44	12.	1	JAN	1400	169	312.	2	JAN	0025	294	7.	2	JAN	1050	419	0.
1	JAN	0340	45	12.	1	JAN	1405	170	284.	2	JAN	0030	295	6.	2	JAN	1055	420	0.
1	JAN	0345	46	12.	1	JAN	1410	171	260.	2	JAN	0035	296	6.	2	JAN	1100	421	0.
1	JAN	0350	47	12.	1	JAN	1415	172	238.	2	JAN	0040	297	5.	2	JAN	1105	422	0.
1	JAN	0355	48	12.	1	JAN	1420	173	220.	2	JAN	0045	298	5.	2	JAN	1110	423	0.
1	JAN	0400	49	12.	1	JAN	1425	174	204.	2	JAN	0050	299	4.	2	JAN	1115	424	0.
1	JAN	0405	50	12.	1	JAN	1430	175	188.	2	JAN	0055	300	4.	2	JAN	1120	425	0.
1	JAN	0410	51	13.	1	JAN	1435	176	173.	2	JAN	0100	301	4.	2	JAN	1125	426	0.
1	JAN	0415	52	13.	1	JAN	1440	177	159.	2	JAN	0105	302	4.	2	JAN	1130	427	0.
1	JAN	0420	53	14.	1	JAN	1445	178	145.	2	JAN	0110	303	3.	2	JAN	1135	428	0.
1	JAN	0425	54	14.	1	JAN	1450	179	132.	2	JAN	0115	304	3.	2	JAN	1140	429	0.
1	JAN	0430	55	14.	1	JAN	1455	180	121.	2	JAN	0120	305	3.	2	JAN	1145	430	0.
1	JAN	0435	56	14.	1	JAN	1500	181	111.	2	JAN	0125	306	3.	2	JAN	1150	431	0.
1	JAN	0440	57	14.	1	JAN	1505	182	104.	2	JAN	0130	307	3.	2	JAN	1155	432	0.
1	JAN	0445	58	14.	1	JAN	1510	183	98.	2	JAN	0135	308	3.	2	JAN	1200	433	0.
1	JAN	0450	59	14.	1	JAN	1515	184	94.	2	JAN	0140	309	2.	2	JAN	1205	434	0.
1	JAN	0455	60	14.	1	JAN	1520	185	91.	2	JAN	0145	310	2.	2	JAN	1210	435	0.
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1	JAN	0505	62	15.	1	JAN	1530	187	84.	2	JAN	0155	312	2.	2	JAN	1220	437	0.
1	JAN	0510	63	15.	1	JAN	1535	188	80.	2	JAN	0200	313	2.	2	JAN	1225	438	0.
1	JAN	0515	64	15.	1	JAN	1540	189	76.	2	JAN	0205	314	2.	2	JAN	1230	439	0.
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1	JAN	0525	66	15.	1	JAN	1550	191	69.	2	JAN	0215	316	1.	2	JAN	1240	441	0.
1	JAN	0530	67	15.	1	JAN	1555	192	67.	2	JAN	0220	317	1.	2	JAN	1245	442	0.
1	JAN	0535	68	15.	1	JAN	1600	193	66.	2	JAN	0225	318	1.	2	JAN	1250	443	0.
1	JAN	0540	69	15.	1	JAN	1605	194	65.	2	JAN	0230	319	1.	2	JAN	1255	444	0.
1	JAN	0545	70	15.	1	JAN	1610	195	64.	2	JAN	0235	320	1.	2	JAN	1300	445	0.
1	JAN	0550	71	15.	1	JAN	1615	196	64.	2	JAN	0240	321	1.	2	JAN	1305	446	0.
1	JAN	0555	72	15.	1	JAN	1620	197	63.	2	JAN	0245	322	1.	2	JAN	1310	447	0.
1	JAN	0600	73	15.	1	JAN	1625	198	63.	2	JAN	0250	323	1.	2	JAN	1315	448	0.
1	JAN	0605	74	15.	1	JAN	1630	199	63.	2	JAN	0255	324	1.	2	JAN	1320	449	0.
1	JAN	0610	75	15.	1	JAN	1635	200	63.	2	JAN	0300	325	0.	2	JAN	1325	450	0.
1	JAN	0615	76	16.	1	JAN	1640	201	62.	2	JAN	0305	326	0.	2	JAN	1330	451	0.
1	JAN	0620	77	16.	1	JAN	1645	202	60.	2	JAN	0310	327	0.	2	JAN	1335	452	0.
1	JAN	0625	78	16.	1	JAN	1650	203	57.	2	JAN	0315	328	0.	2	JAN	1340	453	0.
1	JAN	0630	79	17.	1	JAN	1655	204	54.	2	JAN	0320	329	0.	2	JAN	1345	454	0.
1	JAN	0635	80	17.	1	JAN	1700	205	52.	2	JAN	0325	330	0.	2	JAN	1350	455	0.
1	JAN	0640	81	18.	1	JAN	1705	206	49.	2	JAN	0330	331	0.	2	JAN	1355	456	0.
1	JAN	0645	82	18.	1	JAN	1710	207	48.	2	JAN	0335	332	0.	2	JAN	1400	457	0.
1	JAN	0650	83	18.	1	JAN	1715	208	47.	2	JAN	0340	333	0.	2	JAN	1405	458	0.
1	JAN	0655	84	18.	1	JAN	1720	209	46.	2	JAN	0345	334	0.	2	JAN	1410	459	0.
1	JAN	0700	85	18.	1	JAN	1725	210	45.	2	JAN	0350	335	0.	2	JAN	1415	460	0.
1	JAN	0705	86	18.	1	JAN	1730	211	45.	2	JAN	0355	336	0.	2	JAN	1420	461	0.
1	JAN	0710	87	18.	1	JAN	1735	212	45.	2	JAN	0400	337	0.	2	JAN	1425	462	0.
1	JAN	0715	88	18.	1	JAN	1740	213	45.	2	JAN	0405	338	0.	2	JAN	1430	463	0.
1	JAN	0720	89	18.	1	JAN	1745	214	45.	2	JAN	0410	339	0.	2	JAN	1435	464	0.
1	JAN	0725	90	18.	1	JAN	1750	215	44.	2	JAN	0415	340	0.	2	JAN	1440	465	0.
1	JAN	0730	91	19.	1	JAN	1755	216	43.	2	JAN	0420	341	0.	2	JAN	1445	466	0.
1	JAN	0735	92	19.	1	JAN	1800	217	42.	2	JAN	0425	342	0.	2	JAN	1450	467	0.
1	JAN	0740	93	19.	1	JAN	1805	218	39.	2	JAN	0430	343	0.	2	JAN	1455	468	0.
1	JAN	0745	94	19.	1	JAN	1810	219	36.	2	JAN	0435	344	0.	2	JAN	1500	469	0.
1	JAN	0750	95	19.	1	JAN	1815	220	33.	2	JAN	0440	345	0.	2	JAN	1505	470	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0755	96	19.	1	JAN	1820	221	31.	2	JAN	0445	346	0.	2	JAN	1510	471	0.
1	JAN	0800	97	19.	1	JAN	1825	222	29.	2	JAN	0450	347	0.	2	JAN	1515	472	0.
1	JAN	0805	98	19.	1	JAN	1830	223	28.	2	JAN	0455	348	0.	2	JAN	1520	473	0.
1	JAN	0810	99	19.	1	JAN	1835	224	27.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	19.	1	JAN	1840	225	27.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	20.	1	JAN	1845	226	26.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	20.	1	JAN	1850	227	26.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	21.	1	JAN	1855	228	26.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	22.	1	JAN	1900	229	26.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	22.	1	JAN	1905	230	26.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	23.	1	JAN	1910	231	26.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	24.	1	JAN	1915	232	26.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	24.	1	JAN	1920	233	26.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	24.	1	JAN	1925	234	26.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	25.	1	JAN	1930	235	26.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	25.	1	JAN	1935	236	26.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	25.	1	JAN	1940	237	26.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	26.	1	JAN	1945	238	27.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	26.	1	JAN	1950	239	26.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	27.	1	JAN	1955	240	26.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	28.	1	JAN	2000	241	25.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	29.	1	JAN	2005	242	23.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	31.	1	JAN	2010	243	21.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	35.	1	JAN	2015	244	19.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	39.	1	JAN	2020	245	17.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	44.	1	JAN	2025	246	16.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	48.	1	JAN	2030	247	15.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	53.	1	JAN	2035	248	15.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	59.	1	JAN	2040	249	14.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	66.	1	JAN	2045	250	14.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
6722.	12.33	1123.	296.	171.	171.
		(INCHES) 2.092	2.205	2.207	2.207
		(AC-FT) 557.	587.	588.	588.

CUMULATIVE AREA = 4.99 SQ MI

HYDROGRAPH AT C002
TRANSPOSITION AREA 1.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	71.	1	JAN	2050	251	13.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	81.	1	JAN	2055	252	13.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	93.	1	JAN	2100	253	13.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	108.	1	JAN	2105	254	13.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	126.	1	JAN	2110	255	13.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	148.	1	JAN	2115	256	13.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	174.	1	JAN	2120	257	13.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	204.	1	JAN	2125	258	13.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	236.	1	JAN	2130	259	12.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	271.	1	JAN	2135	260	12.	2	JAN	0800	385	0.
1	JAN	0050	11	7.	1	JAN	1115	136	309.	1	JAN	2140	261	12.	2	JAN	0805	386	0.
1	JAN	0055	12	7.	1	JAN	1120	137	348.	1	JAN	2145	262	12.	2	JAN	0810	387	0.
1	JAN	0100	13	7.	1	JAN	1125	138	390.	1	JAN	2150	263	12.	2	JAN	0815	388	0.
1	JAN	0105	14	8.	1	JAN	1130	139	437.	1	JAN	2155	264	12.	2	JAN	0820	389	0.
1	JAN	0110	15	8.	1	JAN	1135	140	537.	1	JAN	2200	265	12.	2	JAN	0825	390	0.
1	JAN	0115	16	8.	1	JAN	1140	141	719.	1	JAN	2205	266	12.	2	JAN	0830	391	0.
1	JAN	0120	17	8.	1	JAN	1145	142	1053.	1	JAN	2210	267	12.	2	JAN	0835	392	0.
1	JAN	0125	18	8.	1	JAN	1150	143	1622.	1	JAN	2215	268	12.	2	JAN	0840	393	0.
1	JAN	0130	19	9.	1	JAN	1155	144	2445.	1	JAN	2220	269	12.	2	JAN	0845	394	0.
1	JAN	0135	20	9.	1	JAN	1200	145	3616.	1	JAN	2225	270	12.	2	JAN	0850	395	0.
1	JAN	0140	21	9.	1	JAN	1205	146	4859.	1	JAN	2230	271	12.	2	JAN	0855	396	0.
1	JAN	0145	22	9.	1	JAN	1210	147	5995.	1	JAN	2235	272	12.	2	JAN	0900	397	0.
1	JAN	0150	23	9.	1	JAN	1215	148	6646.	1	JAN	2240	273	12.	2	JAN	0905	398	0.
1	JAN	0155	24	9.	1	JAN	1220	149	6669.	1	JAN	2245	274	12.	2	JAN	0910	399	0.
1	JAN	0200	25	10.	1	JAN	1225	150	6131.	1	JAN	2250	275	12.	2	JAN	0915	400	0.
1	JAN	0205	26	10.	1	JAN	1230	151	5365.	1	JAN	2255	276	12.	2	JAN	0920	401	0.
1	JAN	0210	27	10.	1	JAN	1235	152	4615.	1	JAN	2300	277	12.	2	JAN	0925	402	0.
1	JAN	0215	28	10.	1	JAN	1240	153	3954.	1	JAN	2305	278	12.	2	JAN	0930	403	0.
1	JAN	0220	29	10.	1	JAN	1245	154	3376.	1	JAN	2310	279	12.	2	JAN	0935	404	0.
1	JAN	0225	30	10.	1	JAN	1250	155	2864.	1	JAN	2315	280	12.	2	JAN	0940	405	0.
1	JAN	0230	31	10.	1	JAN	1255	156	2408.	1	JAN	2320	281	12.	2	JAN	0945	406	0.
1	JAN	0235	32	11.	1	JAN	1300	157	1983.	1	JAN	2325	282	12.	2	JAN	0950	407	0.
1	JAN	0240	33	11.	1	JAN	1305	158	1567.	1	JAN	2330	283	12.	2	JAN	0955	408	0.
1	JAN	0245	34	11.	1	JAN	1310	159	1258.	1	JAN	2335	284	12.	2	JAN	1000	409	0.
1	JAN	0250	35	11.	1	JAN	1315	160	1056.	1	JAN	2340	285	12.	2	JAN	1005	410	0.
1	JAN	0255	36	11.	1	JAN	1320	161	905.	1	JAN	2345	286	12.	2	JAN	1010	411	0.
1	JAN	0300	37	11.	1	JAN	1325	162	770.	1	JAN	2350	287	12.	2	JAN	1015	412	0.
1	JAN	0305	38	11.	1	JAN	1330	163	652.	1	JAN	2355	288	12.	2	JAN	1020	413	0.
1	JAN	0310	39	11.	1	JAN	1335	164	561.	2	JAN	0000	289	11.	2	JAN	1025	414	0.
1	JAN	0315	40	11.	1	JAN	1340	165	505.	2	JAN	0005	290	11.	2	JAN	1030	415	0.
1	JAN	0320	41	11.	1	JAN	1345	166	454.	2	JAN	0010	291	10.	2	JAN	1035	416	0.
1	JAN	0325	42	11.	1	JAN	1350	167	400.	2	JAN	0015	292	9.	2	JAN	1040	417	0.
1	JAN	0330	43	11.	1	JAN	1355	168	352.	2	JAN	0020	293	8.	2	JAN	1045	418	0.
1	JAN	0335	44	11.	1	JAN	1400	169	307.	2	JAN	0025	294	7.	2	JAN	1050	419	0.
1	JAN	0340	45	11.	1	JAN	1405	170	279.	2	JAN	0030	295	6.	2	JAN	1055	420	0.
1	JAN	0345	46	11.	1	JAN	1410	171	256.	2	JAN	0035	296	6.	2	JAN	1100	421	0.
1	JAN	0350	47	12.	1	JAN	1415	172	234.	2	JAN	0040	297	5.	2	JAN	1105	422	0.
1	JAN	0355	48	12.	1	JAN	1420	173	217.	2	JAN	0045	298	5.	2	JAN	1110	423	0.
1	JAN	0400	49	12.	1	JAN	1425	174	200.	2	JAN	0050	299	4.	2	JAN	1115	424	0.
1	JAN	0405	50	12.	1	JAN	1430	175	184.	2	JAN	0055	300	4.	2	JAN	1120	425	0.
1	JAN	0410	51	13.	1	JAN	1435	176	170.	2	JAN	0100	301	4.	2	JAN	1125	426	0.
1	JAN	0415	52	13.	1	JAN	1440	177	156.	2	JAN	0105	302	3.	2	JAN	1130	427	0.
1	JAN	0420	53	13.	1	JAN	1445	178	142.	2	JAN	0110	303	3.	2	JAN	1135	428	0.

1 JAN	0425	54	14.	*	1 JAN	1450	179	130.	*	2 JAN	0115	304	3.	*	2 JAN	1140	429	0.	
1 JAN	0430	55	14.	*	1 JAN	1455	180	119.	*	2 JAN	0120	305	3.	*	2 JAN	1145	430	0.	
1 JAN	0435	56	14.	*	1 JAN	1500	181	109.	*	2 JAN	0125	306	3.	*	2 JAN	1150	431	0.	
1 JAN	0440	57	14.	*	1 JAN	1505	182	101.	*	2 JAN	0130	307	3.	*	2 JAN	1155	432	0.	
1 JAN	0445	58	14.	*	1 JAN	1510	183	96.	*	2 JAN	0135	308	3.	*	2 JAN	1200	433	0.	
1 JAN	0450	59	14.	*	1 JAN	1515	184	92.	*	2 JAN	0140	309	2.	*	2 JAN	1205	434	0.	
1 JAN	0455	60	14.	*	1 JAN	1520	185	88.	*	2 JAN	0145	310	2.	*	2 JAN	1210	435	0.	
1 JAN	0500	61	14.	*	1 JAN	1525	186	85.	*	2 JAN	0150	311	2.	*	2 JAN	1215	436	0.	
1 JAN	0505	62	14.	*	1 JAN	1530	187	82.	*	2 JAN	0155	312	2.	*	2 JAN	1220	437	0.	
1 JAN	0510	63	15.	*	1 JAN	1535	188	78.	*	2 JAN	0200	313	2.	*	2 JAN	1225	438	0.	
1 JAN	0515	64	15.	*	1 JAN	1540	189	74.	*	2 JAN	0205	314	2.	*	2 JAN	1230	439	0.	
1 JAN	0520	65	15.	*	1 JAN	1545	190	70.	*	2 JAN	0210	315	1.	*	2 JAN	1235	440	0.	
1 JAN	0525	66	15.	*	1 JAN	1550	191	68.	*	2 JAN	0215	316	1.	*	2 JAN	1240	441	0.	
1 JAN	0530	67	15.	*	1 JAN	1555	192	66.	*	2 JAN	0220	317	1.	*	2 JAN	1245	442	0.	
1 JAN	0535	68	15.	*	1 JAN	1600	193	64.	*	2 JAN	0225	318	1.	*	2 JAN	1250	443	0.	
1 JAN	0540	69	15.	*	1 JAN	1605	194	63.	*	2 JAN	0230	319	1.	*	2 JAN	1255	444	0.	
1 JAN	0545	70	15.	*	1 JAN	1610	195	63.	*	2 JAN	0235	320	1.	*	2 JAN	1300	445	0.	
1 JAN	0550	71	15.	*	1 JAN	1615	196	62.	*	2 JAN	0240	321	1.	*	2 JAN	1305	446	0.	
1 JAN	0555	72	15.	*	1 JAN	1620	197	62.	*	2 JAN	0245	322	1.	*	2 JAN	1310	447	0.	
1 JAN	0600	73	15.	*	1 JAN	1625	198	62.	*	2 JAN	0250	323	1.	*	2 JAN	1315	448	0.	
1 JAN	0605	74	15.	*	1 JAN	1630	199	62.	*	2 JAN	0255	324	1.	*	2 JAN	1320	449	0.	
1 JAN	0610	75	15.	*	1 JAN	1635	200	62.	*	2 JAN	0300	325	0.	*	2 JAN	1325	450	0.	
1 JAN	0615	76	16.	*	1 JAN	1640	201	61.	*	2 JAN	0305	326	0.	*	2 JAN	1330	451	0.	
1 JAN	0620	77	16.	*	1 JAN	1645	202	59.	*	2 JAN	0310	327	0.	*	2 JAN	1335	452	0.	
1 JAN	0625	78	16.	*	1 JAN	1650	203	56.	*	2 JAN	0315	328	0.	*	2 JAN	1340	453	0.	
1 JAN	0630	79	17.	*	1 JAN	1655	204	53.	*	2 JAN	0320	329	0.	*	2 JAN	1345	454	0.	
1 JAN	0635	80	17.	*	1 JAN	1700	205	51.	*	2 JAN	0325	330	0.	*	2 JAN	1350	455	0.	
1 JAN	0640	81	17.	*	1 JAN	1705	206	48.	*	2 JAN	0330	331	0.	*	2 JAN	1355	456	0.	
1 JAN	0645	82	18.	*	1 JAN	1710	207	47.	*	2 JAN	0335	332	0.	*	2 JAN	1400	457	0.	
1 JAN	0650	83	18.	*	1 JAN	1715	208	46.	*	2 JAN	0340	333	0.	*	2 JAN	1405	458	0.	
1 JAN	0655	84	18.	*	1 JAN	1720	209	45.	*	2 JAN	0345	334	0.	*	2 JAN	1410	459	0.	
1 JAN	0700	85	18.	*	1 JAN	1725	210	44.	*	2 JAN	0350	335	0.	*	2 JAN	1415	460	0.	
1 JAN	0705	86	18.	*	1 JAN	1730	211	44.	*	2 JAN	0355	336	0.	*	2 JAN	1420	461	0.	
1 JAN	0710	87	18.	*	1 JAN	1735	212	44.	*	2 JAN	0400	337	0.	*	2 JAN	1425	462	0.	
1 JAN	0715	88	18.	*	1 JAN	1740	213	44.	*	2 JAN	0405	338	0.	*	2 JAN	1430	463	0.	
1 JAN	0720	89	18.	*	1 JAN	1745	214	44.	*	2 JAN	0410	339	0.	*	2 JAN	1435	464	0.	
1 JAN	0725	90	18.	*	1 JAN	1750	215	44.	*	2 JAN	0415	340	0.	*	2 JAN	1440	465	0.	
1 JAN	0730	91	18.	*	1 JAN	1755	216	43.	*	2 JAN	0420	341	0.	*	2 JAN	1445	466	0.	
1 JAN	0735	92	18.	*	1 JAN	1800	217	41.	*	2 JAN	0425	342	0.	*	2 JAN	1450	467	0.	
1 JAN	0740	93	19.	*	1 JAN	1805	218	38.	*	2 JAN	0430	343	0.	*	2 JAN	1455	468	0.	
1 JAN	0745	94	19.	*	1 JAN	1810	219	35.	*	2 JAN	0435	344	0.	*	2 JAN	1500	469	0.	
1 JAN	0750	95	19.	*	1 JAN	1815	220	32.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.	
1 JAN	0755	96	19.	*	1 JAN	1820	221	30.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.	
1 JAN	0800	97	19.	*	1 JAN	1825	222	28.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.	
1 JAN	0805	98	19.	*	1 JAN	1830	223	27.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.	
1 JAN	0810	99	19.	*	1 JAN	1835	224	26.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.	
1 JAN	0815	100	19.	*	1 JAN	1840	225	26.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.	
1 JAN	0820	101	20.	*	1 JAN	1845	226	26.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.	
1 JAN	0825	102	20.	*	1 JAN	1850	227	25.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.	
1 JAN	0830	103	21.	*	1 JAN	1855	228	25.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.	
1 JAN	0835	104	22.	*	1 JAN	1900	229	25.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.	
1 JAN	0840	105	22.	*	1 JAN	1905	230	25.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.	
1 JAN	0845	106	23.	*	1 JAN	1910	231	25.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.	
1 JAN	0850	107	23.	*	1 JAN	1915	232	25.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.	
1 JAN	0855	108	24.	*	1 JAN	1920	233	25.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.	
1 JAN	0900	109	24.	*	1 JAN	1925	234	25.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.	
1 JAN	0905	110	24.	*	1 JAN	1930	235	26.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.	
1 JAN	0910	111	25.	*	1 JAN	1935	236	26.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.	
1 JAN	0915	112	25.	*	1 JAN	1940	237	26.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.	
1 JAN	0920	113	26.	*	1 JAN	1945	238	26.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.	
1 JAN	0925	114	26.	*	1 JAN	1950	239	26.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.	
1 JAN	0930	115	27.	*	1 JAN	1955	240	25.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.	
1 JAN	0935	116	27.	*	1 JAN	2000	241	24.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.	
1 JAN	0940	117	28.	*	1 JAN	2005	242	22.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.	
1 JAN	0945	118	31.	*	1 JAN	2010	243	20.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.	
1 JAN	0950	119	34.	*	1 JAN	2015	244	18.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.	
1 JAN	0955	120	38.	*	1 JAN	2020	245	17.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.	
1 JAN	1000	121	42.	*	1 JAN	2025	246	16.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.	
1 JAN	1005	122	46.	*	1 JAN	2030	247	15.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.	
1 JAN	1010	123	51.	*	1 JAN	2035	248	14.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.	
1 JAN	1015	124	57.	*	1 JAN	2040	249	14.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.	
1 JAN	1020	125	63.	*	1 JAN	2045	250	14.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.	

****

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
		6-HR	24-HR	72-HR	41.58-HR	
+ (CFS)	(HR)					
		(CFS)				
+ 6669.	12.33	1112.	293.	169.	169.	
		(INCHES)	2.071	2.182	2.185	2.185
		(AC-FT)	551.	581.	582.	582.

CUMULATIVE AREA = 4.99 SQ MI

****

HYDROGRAPH AT C002
TRANSPOSITION AREA 5.0 SQ MI

****

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	*	1	JAN	1025	126	63.	*	1	JAN	2050	251	13.	*	2	JAN	0715	376	0.
1	JAN	0005	2	0.	*	1	JAN	1030	127	73.	*	1	JAN	2055	252	13.	*	2	JAN	0720	377	0.
1	JAN	0010	3	0.	*	1	JAN	1035	128	85.	*	1	JAN	2100	253	13.	*	2	JAN	0725	378	0.
1	JAN	0015	4	1.	*	1	JAN	1040	129	99.	*	1	JAN	2105	254	13.	*	2	JAN	0730	379	0.
1	JAN	0020	5	1.	*	1	JAN	1045	130	116.	*	1	JAN	2110	255	13.	*	2	JAN	0735	380	0.
1	JAN	0025	6	2.	*	1	JAN	1050	131	137.	*	1	JAN	2115	256	12.	*	2	JAN	0740	381	0.
1	JAN	0030	7	3.	*	1	JAN	1055	132	161.	*	1	JAN	2120	257	12.	*	2	JAN	0745	382	0.
1	JAN	0035	8	4.	*	1	JAN	1100	133	189.	*	1	JAN	2125	258	12.	*	2	JAN	0750	383	0.
1	JAN	0040	9	5.	*	1	JAN	1105	134	220.	*	1	JAN	2130	259	12.	*	2	JAN	0755	384	0.
1	JAN	0045	10	6.	*	1	JAN	1110	135	253.	*	1	JAN	2135	260	12.	*	2	JAN	0800	385	0.
1	JAN	0050	11	6.	*	1	JAN	1115	136	289.	*	1	JAN	2140	261	12.	*	2	JAN	0805	386	0.

1	JAN	0055	12	7.	*	1	JAN	1120	137	328.	*	1	JAN	2145	262	12.	*	2	JAN	0810	387	0.
1	JAN	0100	13	7.	*	1	JAN	1125	138	369.	*	1	JAN	2150	263	12.	*	2	JAN	0815	388	0.
1	JAN	0105	14	8.	*	1	JAN	1130	139	414.	*	1	JAN	2155	264	12.	*	2	JAN	0820	389	0.
1	JAN	0110	15	8.	*	1	JAN	1135	140	512.	*	1	JAN	2200	265	12.	*	2	JAN	0825	390	0.
1	JAN	0115	16	8.	*	1	JAN	1140	141	689.	*	1	JAN	2205	266	12.	*	2	JAN	0830	391	0.
1	JAN	0120	17	8.	*	1	JAN	1145	142	1014.	*	1	JAN	2210	267	12.	*	2	JAN	0835	392	0.
1	JAN	0125	18	8.	*	1	JAN	1150	143	1569.	*	1	JAN	2215	268	12.	*	2	JAN	0840	393	0.
1	JAN	0130	19	8.	*	1	JAN	1155	144	2370.	*	1	JAN	2220	269	12.	*	2	JAN	0845	394	0.
1	JAN	0135	20	9.	*	1	JAN	1200	145	3511.	*	1	JAN	2225	270	12.	*	2	JAN	0850	395	0.
1	JAN	0140	21	9.	*	1	JAN	1205	146	4721.	*	1	JAN	2230	271	12.	*	2	JAN	0855	396	0.
1	JAN	0145	22	9.	*	1	JAN	1210	147	5827.	*	1	JAN	2235	272	12.	*	2	JAN	0900	397	0.
1	JAN	0150	23	9.	*	1	JAN	1215	148	6462.	*	1	JAN	2240	273	12.	*	2	JAN	0905	398	0.
1	JAN	0155	24	9.	*	1	JAN	1220	149	6492.	*	1	JAN	2245	274	12.	*	2	JAN	0910	399	0.
1	JAN	0200	25	9.	*	1	JAN	1225	150	5968.	*	1	JAN	2250	275	12.	*	2	JAN	0915	400	0.
1	JAN	0205	26	9.	*	1	JAN	1230	151	5216.	*	1	JAN	2255	276	11.	*	2	JAN	0920	401	0.
1	JAN	0210	27	10.	*	1	JAN	1235	152	4483.	*	1	JAN	2300	277	11.	*	2	JAN	0925	402	0.
1	JAN	0215	28	10.	*	1	JAN	1240	153	3838.	*	1	JAN	2305	278	11.	*	2	JAN	0930	403	0.
1	JAN	0220	29	10.	*	1	JAN	1245	154	3274.	*	1	JAN	2310	279	11.	*	2	JAN	0935	404	0.
1	JAN	0225	30	10.	*	1	JAN	1250	155	2775.	*	1	JAN	2315	280	11.	*	2	JAN	0940	405	0.
1	JAN	0230	31	10.	*	1	JAN	1255	156	2329.	*	1	JAN	2320	281	11.	*	2	JAN	0945	406	0.
1	JAN	0235	32	10.	*	1	JAN	1300	157	1910.	*	1	JAN	2325	282	11.	*	2	JAN	0950	407	0.
1	JAN	0240	33	10.	*	1	JAN	1305	158	1497.	*	1	JAN	2330	283	11.	*	2	JAN	0955	408	0.
1	JAN	0245	34	11.	*	1	JAN	1310	159	1208.	*	1	JAN	2335	284	11.	*	2	JAN	1000	409	0.
1	JAN	0250	35	11.	*	1	JAN	1315	160	1015.	*	1	JAN	2340	285	11.	*	2	JAN	1005	410	0.
1	JAN	0255	36	11.	*	1	JAN	1320	161	871.	*	1	JAN	2345	286	11.	*	2	JAN	1010	411	0.
1	JAN	0300	37	11.	*	1	JAN	1325	162	741.	*	1	JAN	2350	287	11.	*	2	JAN	1015	412	0.
1	JAN	0305	38	11.	*	1	JAN	1330	163	626.	*	1	JAN	2355	288	11.	*	2	JAN	1020	413	0.
1	JAN	0310	39	11.	*	1	JAN	1335	164	539.	*	2	JAN	0000	289	11.	*	2	JAN	1025	414	0.
1	JAN	0315	40	11.	*	1	JAN	1340	165	484.	*	2	JAN	0005	290	11.	*	2	JAN	1030	415	0.
1	JAN	0320	41	11.	*	1	JAN	1345	166	434.	*	2	JAN	0010	291	10.	*	2	JAN	1035	416	0.
1	JAN	0325	42	11.	*	1	JAN	1350	167	382.	*	2	JAN	0015	292	9.	*	2	JAN	1040	417	0.
1	JAN	0330	43	11.	*	1	JAN	1355	168	336.	*	2	JAN	0020	293	8.	*	2	JAN	1045	418	0.
1	JAN	0335	44	11.	*	1	JAN	1400	169	292.	*	2	JAN	0025	294	7.	*	2	JAN	1050	419	0.
1	JAN	0340	45	11.	*	1	JAN	1405	170	265.	*	2	JAN	0030	295	6.	*	2	JAN	1055	420	0.
1	JAN	0345	46	11.	*	1	JAN	1410	171	242.	*	2	JAN	0035	296	5.	*	2	JAN	1100	421	0.
1	JAN	0350	47	11.	*	1	JAN	1415	172	222.	*	2	JAN	0040	297	5.	*	2	JAN	1105	422	0.
1	JAN	0355	48	11.	*	1	JAN	1420	173	205.	*	2	JAN	0045	298	4.	*	2	JAN	1110	423	0.
1	JAN	0400	49	12.	*	1	JAN	1425	174	189.	*	2	JAN	0050	299	4.	*	2	JAN	1115	424	0.
1	JAN	0405	50	12.	*	1	JAN	1430	175	174.	*	2	JAN	0055	300	4.	*	2	JAN	1120	425	0.
1	JAN	0410	51	12.	*	1	JAN	1435	176	159.	*	2	JAN	0100	301	4.	*	2	JAN	1125	426	0.
1	JAN	0415	52	13.	*	1	JAN	1440	177	146.	*	2	JAN	0105	302	3.	*	2	JAN	1130	427	0.
1	JAN	0420	53	13.	*	1	JAN	1445	178	133.	*	2	JAN	0110	303	3.	*	2	JAN	1135	428	0.
1	JAN	0425	54	13.	*	1	JAN	1450	179	121.	*	2	JAN	0115	304	3.	*	2	JAN	1140	429	0.
1	JAN	0430	55	14.	*	1	JAN	1455	180	111.	*	2	JAN	0120	305	3.	*	2	JAN	1145	430	0.
1	JAN	0435	56	14.	*	1	JAN	1500	181	102.	*	2	JAN	0125	306	3.	*	2	JAN	1150	431	0.
1	JAN	0440	57	14.	*	1	JAN	1505	182	95.	*	2	JAN	0130	307	3.	*	2	JAN	1155	432	0.
1	JAN	0445	58	14.	*	1	JAN	1510	183	90.	*	2	JAN	0135	308	3.	*	2	JAN	1200	433	0.
1	JAN	0450	59	14.	*	1	JAN	1515	184	86.	*	2	JAN	0140	309	2.	*	2	JAN	1205	434	0.
1	JAN	0455	60	14.	*	1	JAN	1520	185	83.	*	2	JAN	0145	310	2.	*	2	JAN	1210	435	0.
1	JAN	0500	61	14.	*	1	JAN	1525	186	80.	*	2	JAN	0150	311	2.	*	2	JAN	1215	436	0.
1	JAN	0505	52	14.	*	1	JAN	1530	187	76.	*	2	JAN	0155	312	2.	*	2	JAN	1220	437	0.
1	JAN	0510	63	14.	*	1	JAN	1535	188	73.	*	2	JAN	0200	313	2.	*	2	JAN	1225	438	0.
1	JAN	0515	64	14.	*	1	JAN	1540	189	69.	*	2	JAN	0205	314	2.	*	2	JAN	1230	439	0.
1	JAN	0520	65	14.	*	1	JAN	1545	190	66.	*	2	JAN	0210	315	1.	*	2	JAN	1235	440	0.
1	JAN	0525	66	14.	*	1	JAN	1550	191	63.	*	2	JAN	0215	316	1.	*	2	JAN	1240	441	0.
1	JAN	0530	67	14.	*	1	JAN	1555	192	61.	*	2	JAN	0220	317	1.	*	2	JAN	1245	442	0.
1	JAN	0535	68	14.	*	1	JAN	1600	193	60.	*	2	JAN	0225	318	1.	*	2	JAN	1250	443	0.
1	JAN	0540	69	14.	*	1	JAN	1605	194	60.	*	2	JAN	0230	319	1.	*	2	JAN	1255	444	0.
1	JAN	0545	70	15.	*	1	JAN	1610	195	59.	*	2	JAN	0235	320	1.	*	2	JAN	1300	445	0.
1	JAN	0550	71	15.	*	1	JAN	1615	196	59.	*	2	JAN	0240	321	1.	*	2	JAN	1305	446	0.
1	JAN	0555	72	15.	*	1	JAN	1620	197	59.	*	2	JAN	0245	322	1.	*	2	JAN	1310	447	0.
1	JAN	0600	73	15.	*	1	JAN	1625	198	59.	*	2	JAN	0250	323	1.	*	2	JAN	1315	448	0.
1	JAN	0605	74	15.	*	1	JAN	1630	199	58.	*	2	JAN	0255	324	0.	*	2	JAN	1320	449	0.
1	JAN	0610	75	15.	*	1	JAN	1635	200	58.	*	2	JAN	0300	325	0.	*	2	JAN	1325	450	0.
1	JAN	0615	76	15.	*	1	JAN	1640	201	57.	*	2	JAN	0305	326	0.	*	2	JAN	1330	451	0.
1	JAN	0620	77	16.	*	1	JAN	1645	202	56.	*	2	JAN	0310	327	0.	*	2	JAN	1335	452	0.
1	JAN	0625	78	16.	*	1	JAN	1650	203	53.	*	2	JAN	0315	328	0.	*	2	JAN	1340	453	0.
1	JAN	0630	79	16.	*	1	JAN	1655	204	50.	*	2	JAN	0320	329	0.	*	2	JAN	1345	454	0.
1	JAN	0635	80	17.	*	1	JAN	1700	205	47.	*	2	JAN	0325	330	0.	*	2	JAN	1350	455	0.
1	JAN	0640	81	17.	*	1	JAN	1705	206	45.	*	2	JAN	0330	331	0.	*	2	JAN	1355	456	0.
1	JAN	0645	82	17.	*	1	JAN	1710	207	44.	*	2	JAN	0335	332	0.	*	2	JAN	1400	457	0.
1	JAN	0650	83	17.	*	1	JAN	1715	208	43.	*	2	JAN	0340	333	0.	*	2	JAN	1405	458	0.
1	JAN	0655	84	17.	*	1	JAN	1720	209	42.	*	2	JAN	0345	334	0.	*	2	JAN	1410	459	0.
1	JAN	0700	85	18.	*	1	JAN	1725	210	41.	*	2	JAN	0350	335	0.	*	2	JAN	1415	460	0.
1	JAN	0705	86	18.	*	1	JAN	1730	211	41.	*	2	JAN	0355	336	0.	*	2	JAN	1420	461	0.
1	JAN	0710	87	18.	*	1	JAN	1735	212	41.	*	2	JAN	0400	337	0.	*	2	JAN	1425	462	0.
1	JAN	0715	88	18.	*	1	JAN	1740	213	41.	*	2	JAN	0405	338	0.	*	2	JAN	1430	463	0.
1	JAN	0720	89	18.	*	1	JAN	1745	214	41.	*	2	JAN	0410	339	0.	*	2	JAN	1435	464	0.
1	JAN	0725	90	18.	*	1	JAN	1750	215	41.	*	2	JAN	0415	340	0.	*	2	JAN	1440	465	0.
1	JAN	0730	91	18.	*	1	JAN	1755	216	40.	*	2	JAN	0420	341	0.	*	2	JAN	1445	466	0.
1	JAN	0735	92	18.	*	1	JAN	1800	217	38.	*	2	JAN	0425	342	0.	*	2	JAN	1450	467	0.
1	JAN	0740	93	18.	*	1	JAN	1805	218	35.	*	2	JAN	0430	343	0.	*	2	JAN	1455	468	0.
1	JAN	0745	94	18.	*	1	JAN	1810	219	32.	*	2	JAN	0435	344	0.	*	2	JAN	1500	469	0.
1	JAN	0750	95	18.	*	1	JAN	1815	220	30.	*	2	JAN	0440	345	0.	*	2	JAN	1505	470	0.
1	JAN	0755	96	18.	*	1	JAN	1820	221	27.	*	2	JAN	0445	346	0.	*	2	JAN	1510	471	0.
1	JAN	0800	97	18.	*	1	JAN	1825	222	26.	*	2	JAN	0450	347	0.	*	2	JAN	1515	472	0.
1	JAN	0805	98	18.	*	1	JAN	1830	223	25.	*	2	JAN	0455	348	0.	*	2	JAN	1520	473	0.
1	JAN	0810	99	19.	*	1	JAN	1835	224	24.	*	2	JAN	0500	349	0.	*	2	JAN	1525	474	0.
1	JAN	0815	100	19.	*	1	JAN	1840	225	24.	*	2	JAN	0505	350	0.	*	2	JAN	1530	475	0.
1	JAN	0820	101	19.	*	1	JAN	1845	226	23.	*	2	JAN	0510	351	0.	*	2	JAN	1535	476	0.
1	JAN	0825	102	20.	*	1	JAN	1850	227	23.	*	2	JAN	0515	352	0.	*	2	JAN	1540	477	0.
1	JAN	0830	103	20.	*	1	JAN	1855	228	23.	*	2	JAN	0520	353	0.	*	2	JAN	1545	478	0.
1	JAN	0835	104	21.	*	1	JAN	1900	229	23.	*	2	JAN	0525	354	0.	*	2	JAN	1550	479	0.
1	JAN	0840	105	22.	*	1	JAN	1905	230	23.	*	2	JAN	0530	355	0.	*	2	JAN	1555	480	0.
1	JAN	0845	106	22.	*	1	JAN	1910	231	23.	*	2	JAN	0535	356	0.	*	2	JAN	1600	481	0.
1	JAN	0850	107	23.	*	1	JAN	1915	232	23.	*	2	JAN	0540	357	0.	*	2	JAN	1605	482	0.
1	JAN	0855	108	23.	*	1	JAN	1920	233	23.	*	2	JAN	0545	358	0.	*	2	JAN	1610	483	0.
1	JAN	0900	109	24.	*	1	JAN	1925	234	23.	*	2	JAN	0550	359	0.	*	2	JAN	1615	484	0.
1	JAN	0905	110	24.	*	1	JAN	1930	235	23.	*	2	JAN	0555	360	0.	*	2	JAN	1620	485	0.
1	JAN	0910	111	24.	*	1	JAN	1935	236	23.	*	2	JAN	0600	361	0.	*	2	JAN	1625	486	0.
1	JAN	0915	112	24.	*	1	JAN	1940	237	23.	*	2	JAN	0605	362	0.	*	2	JAN	1630	487	0.
1	JAN	0920	113	25.	*	1	JAN	1945	238	23.	*	2	JAN	0610	363	0.	*	2	JAN	1635	488	0.
1	JAN	0925	114	25.	*	1	JAN	1950	239	23.	*	2	JAN	0615	364	0.	*	2	JAN	1640	489	0.
1	JAN	0930	115	26.	*	1	JAN	1955	240	23.	*	2	JAN	0620	365	0.	*	2	JAN	1645	490	0.
1	JAN	0935	116	26.	*	1	JAN	2000	241	22.	*	2	JAN	0625	366	0.	*	2	JAN	1650	491	0.
1	JAN	0940	117	27.	*	1	JAN	2005	242	21.	*	2	JAN	0630	367	0.	*	2	JAN	1655	492	0.

1 JAN	0945	118	28.	*	1 JAN	2010	243	19.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	30.	*	1 JAN	2015	244	17.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	33.	*	1 JAN	2020	245	16.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	36.	*	1 JAN	2025	246	15.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	39.	*	1 JAN	2030	247	14.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	44.	*	1 JAN	2035	248	14.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	49.	*	1 JAN	2040	249	14.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	55.	*	1 JAN	2045	250	13.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 6492.	12.33	1075.	283.	163.	163.
		(INCHES) 2.002	2.108	2.110	2.110
		(AC-FT) 533.	561.	562.	562.

CUMULATIVE AREA = 4.99 SQ MI

HYDROGRAPH AT C002
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	53.	1	JAN	2050	251	13.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	63.	1	JAN	2055	252	12.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	74.	1	JAN	2100	253	12.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	88.	1	JAN	2105	254	12.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	104.	1	JAN	2110	255	12.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	123.	1	JAN	2115	256	12.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	145.	1	JAN	2120	257	12.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	171.	1	JAN	2125	258	12.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	200.	1	JAN	2130	259	12.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	231.	1	JAN	2135	260	12.	2	JAN	0800	385	0.
1	JAN	0050	11	6.	1	JAN	1115	136	265.	1	JAN	2140	261	12.	2	JAN	0805	386	0.
1	JAN	0055	12	7.	1	JAN	1120	137	302.	1	JAN	2145	262	12.	2	JAN	0810	387	0.
1	JAN	0100	13	7.	1	JAN	1125	138	342.	1	JAN	2150	263	12.	2	JAN	0815	388	0.
1	JAN	0105	14	7.	1	JAN	1130	139	386.	1	JAN	2155	264	12.	2	JAN	0820	389	0.
1	JAN	0110	15	8.	1	JAN	1135	140	481.	1	JAN	2200	265	12.	2	JAN	0825	390	0.
1	JAN	0115	16	8.	1	JAN	1140	141	653.	1	JAN	2205	266	11.	2	JAN	0830	391	0.
1	JAN	0120	17	8.	1	JAN	1145	142	967.	1	JAN	2210	267	11.	2	JAN	0835	392	0.
1	JAN	0125	18	8.	1	JAN	1150	143	1504.	1	JAN	2215	268	11.	2	JAN	0840	393	0.
1	JAN	0130	19	8.	1	JAN	1155	144	2280.	1	JAN	2220	269	11.	2	JAN	0845	394	0.
1	JAN	0135	20	8.	1	JAN	1200	145	3385.	1	JAN	2225	270	11.	2	JAN	0850	395	0.
1	JAN	0140	21	8.	1	JAN	1205	146	4556.	1	JAN	2230	271	11.	2	JAN	0855	396	0.
1	JAN	0145	22	9.	1	JAN	1210	147	5625.	1	JAN	2235	272	11.	2	JAN	0900	397	0.
1	JAN	0150	23	9.	1	JAN	1215	148	6241.	1	JAN	2240	273	11.	2	JAN	0905	398	0.
1	JAN	0155	24	9.	1	JAN	1220	149	6276.	1	JAN	2245	274	11.	2	JAN	0910	399	0.
1	JAN	0200	25	9.	1	JAN	1225	150	5774.	1	JAN	2250	275	11.	2	JAN	0915	400	0.
1	JAN	0205	26	9.	1	JAN	1230	151	5040.	1	JAN	2255	276	11.	2	JAN	0920	401	0.
1	JAN	0210	27	9.	1	JAN	1235	152	4325.	1	JAN	2300	277	11.	2	JAN	0925	402	0.
1	JAN	0215	28	9.	1	JAN	1240	153	3699.	1	JAN	2305	278	11.	2	JAN	0930	403	0.
1	JAN	0220	29	10.	1	JAN	1245	154	3153.	1	JAN	2310	279	11.	2	JAN	0935	404	0.
1	JAN	0225	30	10.	1	JAN	1250	155	2669.	1	JAN	2315	280	11.	2	JAN	0940	405	0.
1	JAN	0230	31	10.	1	JAN	1255	156	2234.	1	JAN	2320	281	11.	2	JAN	0945	406	0.
1	JAN	0235	32	10.	1	JAN	1300	157	1819.	1	JAN	2325	282	11.	2	JAN	0950	407	0.
1	JAN	0240	33	10.	1	JAN	1305	158	1419.	1	JAN	2330	283	11.	2	JAN	0955	408	0.
1	JAN	0245	34	10.	1	JAN	1310	159	1150.	1	JAN	2335	284	11.	2	JAN	1000	409	0.
1	JAN	0250	35	10.	1	JAN	1315	160	969.	1	JAN	2340	285	11.	2	JAN	1005	410	0.
1	JAN	0255	36	10.	1	JAN	1320	161	830.	1	JAN	2345	286	11.	2	JAN	1010	411	0.
1	JAN	0300	37	10.	1	JAN	1325	162	706.	1	JAN	2350	287	11.	2	JAN	1015	412	0.
1	JAN	0305	38	11.	1	JAN	1330	163	595.	1	JAN	2355	288	11.	2	JAN	1020	413	0.
1	JAN	0310	39	11.	1	JAN	1335	164	512.	2	JAN	0000	289	11.	2	JAN	1025	414	0.
1	JAN	0315	40	11.	1	JAN	1340	165	459.	2	JAN	0005	290	10.	2	JAN	1030	415	0.
1	JAN	0320	41	11.	1	JAN	1345	166	411.	2	JAN	0010	291	10.	2	JAN	1035	416	0.
1	JAN	0325	42	11.	1	JAN	1350	167	361.	2	JAN	0015	292	9.	2	JAN	1040	417	0.
1	JAN	0330	43	11.	1	JAN	1355	168	316.	2	JAN	0020	293	8.	2	JAN	1045	418	0.
1	JAN	0335	44	11.	1	JAN	1400	169	274.	2	JAN	0025	294	7.	2	JAN	1050	419	0.
1	JAN	0340	45	11.	1	JAN	1405	170	249.	2	JAN	0030	295	6.	2	JAN	1055	420	0.
1	JAN	0345	46	11.	1	JAN	1410	171	227.	2	JAN	0035	296	5.	2	JAN	1100	421	0.
1	JAN	0350	47	11.	1	JAN	1415	172	207.	2	JAN	0040	297	5.	2	JAN	1105	422	0.
1	JAN	0355	48	11.	1	JAN	1420	173	190.	2	JAN	0045	298	4.	2	JAN	1110	423	0.
1	JAN	0400	49	11.	1	JAN	1425	174	175.	2	JAN	0050	299	4.	2	JAN	1115	424	0.
1	JAN	0405	50	12.	1	JAN	1430	175	160.	2	JAN	0055	300	4.	2	JAN	1120	425	0.
1	JAN	0410	51	12.	1	JAN	1435	176	147.	2	JAN	0100	301	3.	2	JAN	1125	426	0.
1	JAN	0415	52	12.	1	JAN	1440	177	134.	2	JAN	0105	302	3.	2	JAN	1130	427	0.
1	JAN	0420	53	13.	1	JAN	1445	178	122.	2	JAN	0110	303	3.	2	JAN	1135	428	0.
1	JAN	0425	54	13.	1	JAN	1450	179	111.	2	JAN	0115	304	3.	2	JAN	1140	429	0.
1	JAN	0430	55	13.	1	JAN	1455	180	101.	2	JAN	0120	305	3.	2	JAN	1145	430	0.
1	JAN	0435	56	13.	1	JAN	1500	181	93.	2	JAN	0125	306	3.	2	JAN	1150	431	0.
1	JAN	0440	57	13.	1	JAN	1505	182	87.	2	JAN	0130	307	3.	2	JAN	1155	432	0.
1	JAN	0445	58	13.	1	JAN	1510	183	83.	2	JAN	0135	308	2.	2	JAN	1200	433	0.
1	JAN	0450	59	14.	1	JAN	1515	184	79.	2	JAN	0140	309	2.	2	JAN	1205	434	0.
1	JAN	0455	60	14.	1	JAN	1520	185	77.	2	JAN	0145	310	2.	2	JAN	1210	435	0.
1	JAN	0500	61	14.	1	JAN	1525	186	74.	2	JAN	0150	311	2.	2	JAN	1215	436	0.
1	JAN	0505	62	14.	1	JAN	1530	187	71.	2	JAN	0155	312	2.	2	JAN	1220	437	0.
1	JAN	0510	63	14.	1	JAN	1535	188	68.	2	JAN	0200	313	2.	2	JAN	1225	438	0.
1	JAN	0515	64	14.	1	JAN	1540	189	64.	2	JAN	0205	314	2.	2	JAN	1230	439	0.
1	JAN	0520	65	14.	1	JAN	1545	190	61.	2	JAN	0210	315	1.	2	JAN	1235	440	0.
1	JAN	0525	66	14.	1	JAN	1550	191	59.	2	JAN	0215	316	1.	2	JAN	1240	441	0.
1	JAN	0530	67	14.	1	JAN	1555	192	57.	2	JAN	0220	317	1.	2	JAN	1245	442	0.
1	JAN	0535	68	14.	1	JAN	1600	193	56.	2	JAN	0225	318	1.	2	JAN	1250	443	0.
1	JAN	0540	69	14.	1	JAN	1605	194	55.	2	JAN	0230	319	1.	2	JAN	1255	444	0.
1	JAN	0545	70	14.	1	JAN	1610	195	55.	2	JAN	0235	320	1.	2	JAN	1300	445	0.
1	JAN	0550	71	14.	1	JAN	1615	196	54.	2	JAN	0240	321	1.	2	JAN	1305	446	0.
1	JAN	0555	72	14.	1	JAN	1620	197	54.	2	JAN	0245	322	1.	2	JAN	1310	447	0.
1	JAN	0600	73	14.	1	JAN	1625	198	54.	2	JAN	0250	323	1.	2	JAN	1315	448	0.
1	JAN	0605	74	14.	1	JAN	1630	199	54.	2	JAN	0255	324	0.	2	JAN	1320	449	0.
1	JAN	0610	75	14.	1	JAN	1635	200	54.	2	JAN	0300	325	0.	2	JAN	1325	450	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0615	76	15.	1	JAN	1640	201	53.	2	JAN	0305	326	0.	2	JAN	1330	451	0.
1	JAN	0620	77	15.	1	JAN	1645	202	52.	2	JAN	0310	327	0.	2	JAN	1335	452	0.
1	JAN	0625	78	16.	1	JAN	1650	203	49.	2	JAN	0315	328	0.	2	JAN	1340	453	0.
1	JAN	0630	79	16.	1	JAN	1655	204	46.	2	JAN	0320	329	0.	2	JAN	1345	454	0.
1	JAN	0635	80	16.	1	JAN	1700	205	44.	2	JAN	0325	330	0.	2	JAN	1350	455	0.
1	JAN	0640	81	17.	1	JAN	1705	206	41.	2	JAN	0330	331	0.	2	JAN	1355	456	0.
1	JAN	0645	82	17.	1	JAN	1710	207	40.	2	JAN	0335	332	0.	2	JAN	1400	457	0.
1	JAN	0650	83	17.	1	JAN	1715	208	39.	2	JAN	0340	333	0.	2	JAN	1405	458	0.
1	JAN	0655	84	17.	1	JAN	1720	209	38.	2	JAN	0345	334	0.	2	JAN	1410	459	0.
1	JAN	0700	85	17.	1	JAN	1725	210	38.	2	JAN	0350	335	0.	2	JAN	1415	460	0.
1	JAN	0705	86	17.	1	JAN	1730	211	38.	2	JAN	0355	336	0.	2	JAN	1420	461	0.
1	JAN	0710	87	17.	1	JAN	1735	212	37.	2	JAN	0400	337	0.	2	JAN	1425	462	0.
1	JAN	0715	88	17.	1	JAN	1740	213	37.	2	JAN	0405	338	0.	2	JAN	1430	463	0.
1	JAN	0720	89	17.	1	JAN	1745	214	37.	2	JAN	0410	339	0.	2	JAN	1435	464	0.
1	JAN	0725	90	17.	1	JAN	1750	215	37.	2	JAN	0415	340	0.	2	JAN	1440	465	0.
1	JAN	0730	91	17.	1	JAN	1755	216	36.	2	JAN	0420	341	0.	2	JAN	1445	466	0.
1	JAN	0735	92	17.	1	JAN	1800	217	34.	2	JAN	0425	342	0.	2	JAN	1450	467	0.
1	JAN	0740	93	18.	1	JAN	1805	218	32.	2	JAN	0430	343	0.	2	JAN	1455	468	0.
1	JAN	0745	94	18.	1	JAN	1810	219	29.	2	JAN	0435	344	0.	2	JAN	1500	469	0.
1	JAN	0750	95	18.	1	JAN	1815	220	26.	2	JAN	0440	345	0.	2	JAN	1505	470	0.
1	JAN	0755	96	18.	1	JAN	1820	221	24.	2	JAN	0445	346	0.	2	JAN	1510	471	0.
1	JAN	0800	97	18.	1	JAN	1825	222	23.	2	JAN	0450	347	0.	2	JAN	1515	472	0.
1	JAN	0805	98	18.	1	JAN	1830	223	22.	2	JAN	0455	348	0.	2	JAN	1520	473	0.
1	JAN	0810	99	18.	1	JAN	1835	224	21.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	18.	1	JAN	1840	225	21.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	19.	1	JAN	1845	226	20.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	19.	1	JAN	1850	227	20.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	20.	1	JAN	1855	228	20.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	21.	1	JAN	1900	229	20.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	21.	1	JAN	1905	230	20.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	22.	1	JAN	1910	231	20.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	22.	1	JAN	1915	232	20.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	23.	1	JAN	1920	233	20.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	23.	1	JAN	1925	234	20.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	23.	1	JAN	1930	235	20.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	23.	1	JAN	1935	236	20.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	24.	1	JAN	1940	237	21.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	24.	1	JAN	1945	238	21.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	25.	1	JAN	1950	239	21.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	25.	1	JAN	1955	240	20.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	26.	1	JAN	2000	241	20.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	26.	1	JAN	2005	242	19.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	27.	1	JAN	2010	243	17.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	27.	1	JAN	2015	244	16.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	28.	1	JAN	2020	245	15.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	30.	1	JAN	2025	246	14.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	32.	1	JAN	2030	247	14.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	35.	1	JAN	2035	248	13.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	40.	1	JAN	2040	249	13.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	46.	1	JAN	2045	250	13.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
6276.	12.33	1031.	271.	157.	157.
		(INCHES) 1.919	2.018	2.020	2.020
		(AC-FT) 511.	537.	538.	538.

CUMULATIVE AREA = 4.99 SQ MI

HYDROGRAPH AT C002
TRANSPOSITION AREA 30.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	41.	1	JAN	2050	251	12.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	50.	1	JAN	2055	252	12.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	60.	1	JAN	2100	253	12.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	72.	1	JAN	2105	254	12.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	86.	1	JAN	2110	255	12.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	103.	1	JAN	2115	256	12.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	122.	1	JAN	2120	257	11.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	145.	1	JAN	2125	258	11.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	170.	1	JAN	2130	259	11.	2	JAN	0755	384	0.
1	JAN	0045	10	5.	1	JAN	1110	135	199.	1	JAN	2135	260	11.	2	JAN	0800	385	0.
1	JAN	0050	11	6.	1	JAN	1115	136	230.	1	JAN	2140	261	11.	2	JAN	0805	386	0.
1	JAN	0055	12	6.	1	JAN	1120	137	265.	1	JAN	2145	262	11.	2	JAN	0810	387	0.
1	JAN	0100	13	7.	1	JAN	1125	138	303.	1	JAN	2150	263	11.	2	JAN	0815	388	0.
1	JAN	0105	14	7.	1	JAN	1130	139	345.	1	JAN	2155	264	11.	2	JAN	0820	389	0.
1	JAN	0110	15	7.	1	JAN	1135	140	436.	1	JAN	2200	265	11.	2	JAN	0825	390	0.
1	JAN	0115	16	7.	1	JAN	1140	141	600.	1	JAN	2205	266	11.	2	JAN	0830	391	0.
1	JAN	0120	17	8.	1	JAN	1145	142	900.	1	JAN	2210	267	11.	2	JAN	0835	392	0.
1	JAN	0125	18	8.	1	JAN	1150	143	1411.	1	JAN	2215	268	11.	2	JAN	0840	393	0.
1	JAN	0130	19	8.	1	JAN	1155	144	2151.	1	JAN	2220	269	11.	2	JAN	0845	394	0.
1	JAN	0135	20	8.	1	JAN	1200	145	3206.	1	JAN	2225	270	11.	2	JAN	0850	395	0.
1	JAN	0140	21	8.	1	JAN	1205	146	4321.	1	JAN	2230	271	11.	2	JAN	0855	396	0.
1	JAN	0145	22	8.	1	JAN	1210	147	5339.	1	JAN	2235	272	11.	2	JAN	0900	397	0.
1	JAN	0150	23	8.	1	JAN	1215	148	5927.	1	JAN	2240	273	11.	2	JAN	0905	398	0.
1	JAN	0155	24	9.	1	JAN	1220	149	5969.	1	JAN	2245	274	11.	2	JAN	0910	399	0.
1	JAN	0200	25	9.	1	JAN	1225	150	5499.	1	JAN	2250	275	11.	2	JAN	0915	400	0.
1	JAN	0205	26	9.	1	JAN	1230	151	4790.	1	JAN	2255	276	11.	2	JAN	0920	401	0.
1	JAN	0210	27	9.	1	JAN	1235	152	4103.	1	JAN	2300	277	11.	2	JAN	0925	402	0.
1	JAN	0215	28	9.	1	JAN	1240	153	3502.	1	JAN	2305	278	11.	2	JAN	0930	403	0.
1	JAN	0220	29	9.	1	JAN	1245	154	2979.	1	JAN	2310	279	11.	2	JAN	0935	404	0.
1	JAN	0225	30	9.	1	JAN	1250	155	2514.	1	JAN	2315	280	11.	2	JAN	0940	405	0.
1	JAN	0230	31	9.	1	JAN	1255	156	2090.	1	JAN	2320	281	11.	2	JAN	0945	406	0.
1	JAN	0235	32	10.	1	JAN	1300	157	1677.	1	JAN	2325	282	11.	2	JAN	0950	407	0.
1	JAN	0240	33	10.	1	JAN	1305	158	1324.	1	JAN	2330	283	11.	2	JAN	0955	408	0.

1 JAN 0245	34	10.	*	1 JAN 1310	159	1077.	*	1 JAN 2335	284	11.	*	2 JAN 1000	409	0.			
1 JAN 0250	35	10.	*	1 JAN 1315	160	907.	*	1 JAN 2340	285	11.	*	2 JAN 1005	410	0.			
1 JAN 0255	36	10.	*	1 JAN 1320	161	777.	*	1 JAN 2345	286	11.	*	2 JAN 1010	411	0.			
1 JAN 0300	37	10.	*	1 JAN 1325	162	658.	*	1 JAN 2350	287	11.	*	2 JAN 1015	412	0.			
1 JAN 0305	38	10.	*	1 JAN 1330	163	553.	*	1 JAN 2355	288	10.	*	2 JAN 1020	413	0.			
1 JAN 0310	39	10.	*	1 JAN 1335	164	474.	*	2 JAN 0000	289	10.	*	2 JAN 1025	414	0.			
1 JAN 0315	40	10.	*	1 JAN 1340	165	424.	*	2 JAN 0005	290	10.	*	2 JAN 1030	415	0.			
1 JAN 0320	41	10.	*	1 JAN 1345	166	379.	*	2 JAN 0010	291	9.	*	2 JAN 1035	416	0.			
1 JAN 0325	42	10.	*	1 JAN 1350	167	332.	*	2 JAN 0015	292	8.	*	2 JAN 1040	417	0.			
1 JAN 0330	43	10.	*	1 JAN 1355	168	289.	*	2 JAN 0020	293	8.	*	2 JAN 1045	418	0.			
1 JAN 0335	44	10.	*	1 JAN 1400	169	249.	*	2 JAN 0025	294	7.	*	2 JAN 1050	419	0.			
1 JAN 0340	45	10.	*	1 JAN 1405	170	225.	*	2 JAN 0030	295	6.	*	2 JAN 1055	420	0.			
1 JAN 0345	46	10.	*	1 JAN 1410	171	204.	*	2 JAN 0035	296	5.	*	2 JAN 1100	421	0.			
1 JAN 0350	47	10.	*	1 JAN 1415	172	186.	*	2 JAN 0040	297	5.	*	2 JAN 1105	422	0.			
1 JAN 0355	48	11.	*	1 JAN 1420	173	170.	*	2 JAN 0045	298	4.	*	2 JAN 1110	423	0.			
1 JAN 0400	49	11.	*	1 JAN 1425	174	156.	*	2 JAN 0050	299	4.	*	2 JAN 1115	424	0.			
1 JAN 0405	50	11.	*	1 JAN 1430	175	142.	*	2 JAN 0055	300	4.	*	2 JAN 1120	425	0.			
1 JAN 0410	51	12.	*	1 JAN 1435	176	129.	*	2 JAN 0100	301	3.	*	2 JAN 1125	426	0.			
1 JAN 0415	52	12.	*	1 JAN 1440	177	117.	*	2 JAN 0105	302	3.	*	2 JAN 1130	427	0.			
1 JAN 0420	53	12.	*	1 JAN 1445	178	106.	*	2 JAN 0110	303	3.	*	2 JAN 1135	428	0.			
1 JAN 0425	54	12.	*	1 JAN 1450	179	97.	*	2 JAN 0115	304	3.	*	2 JAN 1140	429	0.			
1 JAN 0430	55	13.	*	1 JAN 1455	180	88.	*	2 JAN 0120	305	3.	*	2 JAN 1145	430	0.			
1 JAN 0435	56	13.	*	1 JAN 1500	181	81.	*	2 JAN 0125	306	3.	*	2 JAN 1150	431	0.			
1 JAN 0440	57	13.	*	1 JAN 1505	182	76.	*	2 JAN 0130	307	2.	*	2 JAN 1155	432	0.			
1 JAN 0445	58	13.	*	1 JAN 1510	183	73.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.			
1 JAN 0450	59	13.	*	1 JAN 1515	184	70.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.			
1 JAN 0455	60	13.	*	1 JAN 1520	185	68.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.			
1 JAN 0500	61	13.	*	1 JAN 1525	186	66.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.			
1 JAN 0505	62	13.	*	1 JAN 1530	187	63.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.			
1 JAN 0510	63	13.	*	1 JAN 1535	188	60.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.			
1 JAN 0515	64	13.	*	1 JAN 1540	189	57.	*	2 JAN 0205	314	1.	*	2 JAN 1230	439	0.			
1 JAN 0520	65	13.	*	1 JAN 1545	190	54.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.			
1 JAN 0525	66	13.	*	1 JAN 1550	191	52.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.			
1 JAN 0530	67	13.	*	1 JAN 1555	192	51.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.			
1 JAN 0535	68	13.	*	1 JAN 1600	193	50.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.			
1 JAN 0540	69	13.	*	1 JAN 1605	194	49.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.			
1 JAN 0545	70	13.	*	1 JAN 1610	195	49.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.			
1 JAN 0550	71	14.	*	1 JAN 1615	196	48.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.			
1 JAN 0555	72	14.	*	1 JAN 1620	197	48.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.			
1 JAN 0600	73	14.	*	1 JAN 1625	198	48.	*	2 JAN 0250	323	1.	*	2 JAN 1315	448	0.			
1 JAN 0605	74	14.	*	1 JAN 1630	199	48.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.			
1 JAN 0610	75	14.	*	1 JAN 1635	200	48.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.			
1 JAN 0615	76	14.	*	1 JAN 1640	201	47.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.			
1 JAN 0620	77	14.	*	1 JAN 1645	202	46.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.			
1 JAN 0625	78	15.	*	1 JAN 1650	203	43.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.			
1 JAN 0630	79	15.	*	1 JAN 1655	204	41.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.			
1 JAN 0635	80	16.	*	1 JAN 1700	205	38.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.			
1 JAN 0640	81	16.	*	1 JAN 1705	206	36.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.			
1 JAN 0645	82	16.	*	1 JAN 1710	207	35.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.			
1 JAN 0650	83	16.	*	1 JAN 1715	208	34.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.			
1 JAN 0655	84	16.	*	1 JAN 1720	209	33.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.			
1 JAN 0700	85	16.	*	1 JAN 1725	210	33.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.			
1 JAN 0705	86	16.	*	1 JAN 1730	211	32.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.			
1 JAN 0710	87	16.	*	1 JAN 1735	212	32.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.			
1 JAN 0715	88	17.	*	1 JAN 1740	213	32.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.			
1 JAN 0720	89	17.	*	1 JAN 1745	214	32.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.			
1 JAN 0725	90	17.	*	1 JAN 1750	215	32.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.			
1 JAN 0730	91	17.	*	1 JAN 1755	216	31.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.			
1 JAN 0735	92	17.	*	1 JAN 1800	217	30.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.			
1 JAN 0740	93	17.	*	1 JAN 1805	218	28.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.			
1 JAN 0745	94	17.	*	1 JAN 1810	219	25.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.			
1 JAN 0750	95	17.	*	1 JAN 1815	220	23.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	17.	*	1 JAN 1820	221	21.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	17.	*	1 JAN 1825	222	19.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	17.	*	1 JAN 1830	223	18.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	17.	*	1 JAN 1835	224	17.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	17.	*	1 JAN 1840	225	17.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	18.	*	1 JAN 1845	226	17.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	18.	*	1 JAN 1850	227	16.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	19.	*	1 JAN 1855	228	16.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	20.	*	1 JAN 1900	229	16.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	20.	*	1 JAN 1905	230	16.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	21.	*	1 JAN 1910	231	16.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	21.	*	1 JAN 1915	232	16.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	22.	*	1 JAN 1920	233	16.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	22.	*	1 JAN 1925	234	16.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	22.	*	1 JAN 1930	235	16.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	22.	*	1 JAN 1935	236	16.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	23.	*	1 JAN 1940	237	17.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	23.	*	1 JAN 1945	238	17.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	24.	*	1 JAN 1950	239	17.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	24.	*	1 JAN 1955	240	17.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	25.	*	1 JAN 2000	241	16.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	25.	*	1 JAN 2005	242	16.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	25.	*	1 JAN 2010	243	15.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	26.	*	1 JAN 2015	244	14.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	26.	*	1 JAN 2020	245	13.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	27.	*	1 JAN 2025	246	13.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	28.	*	1 JAN 2030	247	13.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	29.	*	1 JAN 2035	248	12.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	32.	*	1 JAN 2040	249	12.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	36.	*	1 JAN 2045	250	12.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5969.	12.33		968.	254.	147.	147.
		(INCHES)	1.803	1.893	1.895	1.895
		(AC-FT)	480.	504.	504.	504.

CUMULATIVE AREA = 4.99 SQ MI

HYDROGRAPH AT C002
TRANSPOSITION AREA 60.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	33.	1 JAN 2050	251	11.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	38.	1 JAN 2055	252	11.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	46.	1 JAN 2100	253	11.	2 JAN 0725	378	0.
1 JAN 0015	4	1.	1 JAN 1040	129	57.	1 JAN 2105	254	11.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	70.	1 JAN 2110	255	11.	2 JAN 0735	380	0.
1 JAN 0025	6	2.	1 JAN 1050	131	86.	1 JAN 2115	256	11.	2 JAN 0740	381	0.
1 JAN 0030	7	3.	1 JAN 1055	132	103.	1 JAN 2120	257	11.	2 JAN 0745	382	0.
1 JAN 0035	8	4.	1 JAN 1100	133	124.	1 JAN 2125	258	11.	2 JAN 0750	383	0.
1 JAN 0040	9	5.	1 JAN 1105	134	146.	1 JAN 2130	259	11.	2 JAN 0755	384	0.
1 JAN 0045	10	5.	1 JAN 1110	135	171.	1 JAN 2135	260	11.	2 JAN 0800	385	0.
1 JAN 0050	11	6.	1 JAN 1115	136	199.	1 JAN 2140	261	11.	2 JAN 0805	386	0.
1 JAN 0055	12	6.	1 JAN 1120	137	231.	1 JAN 2145	262	11.	2 JAN 0810	387	0.
1 JAN 0100	13	6.	1 JAN 1125	138	265.	1 JAN 2150	263	11.	2 JAN 0815	388	0.
1 JAN 0105	14	7.	1 JAN 1130	139	305.	1 JAN 2155	264	11.	2 JAN 0820	389	0.
1 JAN 0110	15	7.	1 JAN 1135	140	391.	1 JAN 2200	265	11.	2 JAN 0825	390	0.
1 JAN 0115	16	7.	1 JAN 1140	141	546.	1 JAN 2205	266	10.	2 JAN 0830	391	0.
1 JAN 0120	17	7.	1 JAN 1145	142	831.	1 JAN 2210	267	10.	2 JAN 0835	392	0.
1 JAN 0125	18	7.	1 JAN 1150	143	1317.	1 JAN 2215	268	10.	2 JAN 0840	393	0.
1 JAN 0130	19	7.	1 JAN 1155	144	2020.	1 JAN 2220	269	10.	2 JAN 0845	394	0.
1 JAN 0135	20	8.	1 JAN 1200	145	3025.	1 JAN 2225	270	10.	2 JAN 0850	395	0.
1 JAN 0140	21	8.	1 JAN 1205	146	4085.	1 JAN 2230	271	10.	2 JAN 0855	396	0.
1 JAN 0145	22	8.	1 JAN 1210	147	5050.	1 JAN 2235	272	10.	2 JAN 0900	397	0.
1 JAN 0150	23	8.	1 JAN 1215	148	5610.	1 JAN 2240	273	10.	2 JAN 0905	398	0.
1 JAN 0155	24	8.	1 JAN 1220	149	5658.	1 JAN 2245	274	10.	2 JAN 0910	399	0.
1 JAN 0200	25	8.	1 JAN 1225	150	5224.	1 JAN 2250	275	10.	2 JAN 0915	400	0.
1 JAN 0205	26	8.	1 JAN 1230	151	4541.	1 JAN 2255	276	10.	2 JAN 0920	401	0.
1 JAN 0210	27	9.	1 JAN 1235	152	3881.	1 JAN 2300	277	10.	2 JAN 0925	402	0.
1 JAN 0215	28	9.	1 JAN 1240	153	3306.	1 JAN 2305	278	10.	2 JAN 0930	403	0.
1 JAN 0220	29	9.	1 JAN 1245	154	2805.	1 JAN 2310	279	10.	2 JAN 0935	404	0.
1 JAN 0225	30	9.	1 JAN 1250	155	2358.	1 JAN 2315	280	10.	2 JAN 0940	405	0.
1 JAN 0230	31	9.	1 JAN 1255	156	1946.	1 JAN 2320	281	10.	2 JAN 0945	406	0.
1 JAN 0235	32	9.	1 JAN 1300	157	1537.	1 JAN 2325	282	10.	2 JAN 0950	407	0.
1 JAN 0240	33	9.	1 JAN 1305	158	1230.	1 JAN 2330	283	10.	2 JAN 0955	408	0.
1 JAN 0245	34	9.	1 JAN 1310	159	1002.	1 JAN 2335	284	10.	2 JAN 1000	409	0.
1 JAN 0250	35	9.	1 JAN 1315	160	844.	1 JAN 2340	285	10.	2 JAN 1005	410	0.
1 JAN 0255	36	10.	1 JAN 1320	161	723.	1 JAN 2345	286	10.	2 JAN 1010	411	0.
1 JAN 0300	37	10.	1 JAN 1325	162	610.	1 JAN 2350	287	10.	2 JAN 1015	412	0.
1 JAN 0305	38	10.	1 JAN 1330	163	512.	1 JAN 2355	288	10.	2 JAN 1020	413	0.
1 JAN 0310	39	10.	1 JAN 1335	164	436.	2 JAN 0000	289	10.	2 JAN 1025	414	0.
1 JAN 0315	40	10.	1 JAN 1340	165	390.	2 JAN 0005	290	9.	2 JAN 1030	415	0.
1 JAN 0320	41	10.	1 JAN 1345	166	348.	2 JAN 0010	291	9.	2 JAN 1035	416	0.
1 JAN 0325	42	10.	1 JAN 1350	167	303.	2 JAN 0015	292	8.	2 JAN 1040	417	0.
1 JAN 0330	43	10.	1 JAN 1355	168	262.	2 JAN 0020	293	7.	2 JAN 1045	418	0.
1 JAN 0335	44	10.	1 JAN 1400	169	224.	2 JAN 0025	294	6.	2 JAN 1050	419	0.
1 JAN 0340	45	10.	1 JAN 1405	170	202.	2 JAN 0030	295	6.	2 JAN 1055	420	0.
1 JAN 0345	46	10.	1 JAN 1410	171	182.	2 JAN 0035	296	5.	2 JAN 1100	421	0.
1 JAN 0350	47	10.	1 JAN 1415	172	165.	2 JAN 0040	297	4.	2 JAN 1105	422	0.
1 JAN 0355	48	10.	1 JAN 1420	173	150.	2 JAN 0045	298	4.	2 JAN 1110	423	0.
1 JAN 0400	49	10.	1 JAN 1425	174	136.	2 JAN 0050	299	4.	2 JAN 1115	424	0.
1 JAN 0405	50	11.	1 JAN 1430	175	124.	2 JAN 0055	300	3.	2 JAN 1120	425	0.
1 JAN 0410	51	11.	1 JAN 1435	176	112.	2 JAN 0100	301	3.	2 JAN 1125	426	0.
1 JAN 0415	52	11.	1 JAN 1440	177	102.	2 JAN 0105	302	3.	2 JAN 1130	427	0.
1 JAN 0420	53	12.	1 JAN 1445	178	92.	2 JAN 0110	303	3.	2 JAN 1135	428	0.
1 JAN 0425	54	12.	1 JAN 1450	179	84.	2 JAN 0115	304	3.	2 JAN 1140	429	0.
1 JAN 0430	55	12.	1 JAN 1455	180	77.	2 JAN 0120	305	3.	2 JAN 1145	430	0.
1 JAN 0435	56	12.	1 JAN 1500	181	71.	2 JAN 0125	306	2.	2 JAN 1150	431	0.
1 JAN 0440	57	12.	1 JAN 1505	182	67.	2 JAN 0130	307	2.	2 JAN 1155	432	0.
1 JAN 0445	58	12.	1 JAN 1510	183	64.	2 JAN 0135	308	2.	2 JAN 1200	433	0.
1 JAN 0450	59	12.	1 JAN 1515	184	62.	2 JAN 0140	309	2.	2 JAN 1205	434	0.
1 JAN 0455	60	12.	1 JAN 1520	185	60.	2 JAN 0145	310	2.	2 JAN 1210	435	0.
1 JAN 0500	61	12.	1 JAN 1525	186	58.	2 JAN 0150	311	2.	2 JAN 1215	436	0.
1 JAN 0505	62	13.	1 JAN 1530	187	56.	2 JAN 0155	312	2.	2 JAN 1220	437	0.
1 JAN 0510	63	13.	1 JAN 1535	188	53.	2 JAN 0200	313	2.	2 JAN 1225	438	0.
1 JAN 0515	64	13.	1 JAN 1540	189	50.	2 JAN 0205	314	1.	2 JAN 1230	439	0.
1 JAN 0520	65	13.	1 JAN 1545	190	48.	2 JAN 0210	315	1.	2 JAN 1235	440	0.
1 JAN 0525	66	13.	1 JAN 1550	191	46.	2 JAN 0215	316	1.	2 JAN 1240	441	0.
1 JAN 0530	67	13.	1 JAN 1555	192	44.	2 JAN 0220	317	1.	2 JAN 1245	442	0.
1 JAN 0535	68	13.	1 JAN 1600	193	43.	2 JAN 0225	318	1.	2 JAN 1250	443	0.
1 JAN 0540	69	13.	1 JAN 1605	194	43.	2 JAN 0230	319	1.	2 JAN 1255	444	0.
1 JAN 0545	70	13.	1 JAN 1610	195	42.	2 JAN 0235	320	1.	2 JAN 1300	445	0.
1 JAN 0550	71	13.	1 JAN 1615	196	42.	2 JAN 0240	321	1.	2 JAN 1305	446	0.
1 JAN 0555	72	13.	1 JAN 1620	197	42.	2 JAN 0245	322	1.	2 JAN 1310	447	0.
1 JAN 0600	73	13.	1 JAN 1625	198	42.	2 JAN 0250	323	1.	2 JAN 1315	448	0.
1 JAN 0605	74	13.	1 JAN 1630	199	42.	2 JAN 0255	324	0.	2 JAN 1320	449	0.
1 JAN 0610	75	13.	1 JAN 1635	200	42.	2 JAN 0300	325	0.	2 JAN 1325	450	0.
1 JAN 0615	76	13.	1 JAN 1640	201	41.	2 JAN 0305	326	0.	2 JAN 1330	451	0.
1 JAN 0620	77	14.	1 JAN 1645	202	40.	2 JAN 0310	327	0.	2 JAN 1335	452	0.
1 JAN 0625	78	14.	1 JAN 1650	203	37.	2 JAN 0315	328	0.	2 JAN 1340	453	0.
1 JAN 0630	79	15.	1 JAN 1655	204	35.	2 JAN 0320	329	0.	2 JAN 1345	454	0.
1 JAN 0635	80	15.	1 JAN 1700	205	32.	2 JAN 0325	330	0.	2 JAN 1350	455	0.
1 JAN 0640	81	15.	1 JAN 1705	206	31.	2 JAN 0330	331	0.	2 JAN 1355	456	0.
1 JAN 0645	82	15.	1 JAN 1710	207	29.	2 JAN 0335	332	0.	2 JAN 1400	457	0.
1 JAN 0650	83	15.	1 JAN 1715	208	28.	2 JAN 0340	333	0.	2 JAN 1405	458	0.
1 JAN 0655	84	16.	1 JAN 1720	209	28.	2 JAN 0345	334	0.	2 JAN 1410	459	0.
1 JAN 0700	85	16.	1 JAN 1725	210	27.	2 JAN 0350	335	0.	2 JAN 1415	460	0.
1 JAN 0705	86	16.	1 JAN 1730	211	27.	2 JAN 0355	336	0.	2 JAN 1420	461	0.
1 JAN 0710	87	16.	1 JAN 1735	212	27.	2 JAN 0400	337	0.	2 JAN 1425	462	0.
1 JAN 0715	88	16.	1 JAN 1740	213	27.	2 JAN 0405	338	0.	2 JAN 1430	463	0.
1 JAN 0720	89	16.	1 JAN 1745	214	27.	2 JAN 0410	339	0.	2 JAN 1435	464	0.
1 JAN 0725	90	16.	1 JAN 1750	215	27.	2 JAN 0415	340	0.	2 JAN 1440	465	0.
1 JAN 0730	91	16.	1 JAN 1755	216	26.	2 JAN 0420	341	0.	2 JAN 1445	466	0.
1 JAN 0735	92	16.	1 JAN 1800	217	25.	2 JAN 0425	342	0.	2 JAN 1450	467	0.
1 JAN 0740	93	16.	1 JAN 1805	218	24.	2 JAN 0430	343	0.	2 JAN 1455	468	0.
1 JAN 0745	94	16.	1 JAN 1810	219	22.	2 JAN 0435	344	0.	2 JAN 1500	469	0.
1 JAN 0750	95	16.	1 JAN 1815	220	20.	2 JAN 0440	345	0.	2 JAN 1505	470	0.
1 JAN 0755	96	16.	1 JAN 1820	221	19.	2 JAN 0445	346	0.	2 JAN 1510	471	0.
1 JAN 0800	97	16.	1 JAN 1825	222	18.	2 JAN 0450	347	0.	2 JAN 1515	472	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0805	98	16.	1	JAN	1830	223	17.	2	JAN	0455	348	0.	2	JAN	1520	473	0.
1	JAN	0810	99	16.	1	JAN	1835	224	16.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	17.	1	JAN	1840	225	16.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	17.	1	JAN	1845	226	16.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	18.	1	JAN	1850	227	15.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	18.	1	JAN	1855	228	15.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	19.	1	JAN	1900	229	15.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	19.	1	JAN	1905	230	15.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	20.	1	JAN	1910	231	15.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	20.	1	JAN	1915	232	15.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	21.	1	JAN	1920	233	14.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	21.	1	JAN	1925	234	14.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	21.	1	JAN	1930	235	14.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	21.	1	JAN	1935	236	14.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	22.	1	JAN	1940	237	14.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	22.	1	JAN	1945	238	14.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	23.	1	JAN	1950	239	14.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	23.	1	JAN	1955	240	14.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	23.	1	JAN	2000	241	14.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	24.	1	JAN	2005	242	13.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	24.	1	JAN	2010	243	13.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	25.	1	JAN	2015	244	12.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	25.	1	JAN	2020	245	12.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	26.	1	JAN	2025	246	12.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	26.	1	JAN	2030	247	12.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	27.	1	JAN	2035	248	12.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	28.	1	JAN	2040	249	11.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	29.	1	JAN	2045	250	11.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 5658.	12.33	906.	238.	137.	137.
		(INCHES) 1.687	1.770	1.772	1.772
		(AC-FT) 449.	471.	472.	472.

CUMULATIVE AREA = 4.99 SQ MI

HYDROGRAPH AT C002
TRANSPOSITION AREA 90.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	31.	1	JAN	2050	251	11.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	35.	1	JAN	2055	252	11.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	42.	1	JAN	2100	253	11.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	52.	1	JAN	2105	254	11.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	65.	1	JAN	2110	255	11.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	80.	1	JAN	2115	256	11.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	97.	1	JAN	2120	257	11.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	116.	1	JAN	2125	258	11.	2	JAN	0750	383	0.
1	JAN	0040	9	4.	1	JAN	1105	134	138.	1	JAN	2130	259	11.	2	JAN	0755	384	0.
1	JAN	0045	10	5.	1	JAN	1110	135	161.	1	JAN	2135	260	11.	2	JAN	0800	385	0.
1	JAN	0050	11	6.	1	JAN	1115	136	188.	1	JAN	2140	261	11.	2	JAN	0805	386	0.
1	JAN	0055	12	6.	1	JAN	1120	137	218.	1	JAN	2145	262	10.	2	JAN	0810	387	0.
1	JAN	0100	13	6.	1	JAN	1125	138	252.	1	JAN	2150	263	10.	2	JAN	0815	388	0.
1	JAN	0105	14	7.	1	JAN	1130	139	290.	1	JAN	2155	264	10.	2	JAN	0820	389	0.
1	JAN	0110	15	7.	1	JAN	1135	140	375.	1	JAN	2200	265	10.	2	JAN	0825	390	0.
1	JAN	0115	16	7.	1	JAN	1140	141	527.	1	JAN	2205	266	10.	2	JAN	0830	391	0.
1	JAN	0120	17	7.	1	JAN	1145	142	806.	1	JAN	2210	267	10.	2	JAN	0835	392	0.
1	JAN	0125	18	7.	1	JAN	1150	143	1283.	1	JAN	2215	268	10.	2	JAN	0840	393	0.
1	JAN	0130	19	7.	1	JAN	1155	144	1974.	1	JAN	2220	269	10.	2	JAN	0845	394	0.
1	JAN	0135	20	7.	1	JAN	1200	145	2960.	1	JAN	2225	270	10.	2	JAN	0850	395	0.
1	JAN	0140	21	8.	1	JAN	1205	146	4001.	1	JAN	2230	271	10.	2	JAN	0855	396	0.
1	JAN	0145	22	8.	1	JAN	1210	147	4947.	1	JAN	2235	272	10.	2	JAN	0900	397	0.
1	JAN	0150	23	8.	1	JAN	1215	148	5497.	1	JAN	2240	273	10.	2	JAN	0905	398	0.
1	JAN	0155	24	8.	1	JAN	1220	149	5548.	1	JAN	2245	274	10.	2	JAN	0910	399	0.
1	JAN	0200	25	8.	1	JAN	1225	150	5126.	1	JAN	2250	275	10.	2	JAN	0915	400	0.
1	JAN	0205	26	8.	1	JAN	1230	151	4454.	1	JAN	2255	276	10.	2	JAN	0920	401	0.
1	JAN	0210	27	8.	1	JAN	1235	152	3803.	1	JAN	2300	277	10.	2	JAN	0925	402	0.
1	JAN	0215	28	9.	1	JAN	1240	153	3238.	1	JAN	2305	278	10.	2	JAN	0930	403	0.
1	JAN	0220	29	9.	1	JAN	1245	154	2745.	1	JAN	2310	279	10.	2	JAN	0935	404	0.
1	JAN	0225	30	9.	1	JAN	1250	155	2305.	1	JAN	2315	280	10.	2	JAN	0940	405	0.
1	JAN	0230	31	9.	1	JAN	1255	156	1896.	1	JAN	2320	281	10.	2	JAN	0945	406	0.
1	JAN	0235	32	9.	1	JAN	1300	157	1489.	1	JAN	2325	282	10.	2	JAN	0950	407	0.
1	JAN	0240	33	9.	1	JAN	1305	158	1196.	1	JAN	2330	283	10.	2	JAN	0955	408	0.
1	JAN	0245	34	9.	1	JAN	1310	159	976.	1	JAN	2335	284	10.	2	JAN	1000	409	0.
1	JAN	0250	35	9.	1	JAN	1315	160	822.	1	JAN	2340	285	10.	2	JAN	1005	410	0.
1	JAN	0255	36	9.	1	JAN	1320	161	704.	1	JAN	2345	286	10.	2	JAN	1010	411	0.
1	JAN	0300	37	9.	1	JAN	1325	162	594.	1	JAN	2350	287	10.	2	JAN	1015	412	0.
1	JAN	0305	38	9.	1	JAN	1330	163	497.	1	JAN	2355	288	10.	2	JAN	1020	413	0.
1	JAN	0310	39	10.	1	JAN	1335	164	423.	2	JAN	0000	289	10.	2	JAN	1025	414	0.
1	JAN	0315	40	10.	1	JAN	1340	165	377.	2	JAN	0005	290	9.	2	JAN	1030	415	0.
1	JAN	0320	41	10.	1	JAN	1345	166	336.	2	JAN	0010	291	9.	2	JAN	1035	416	0.
1	JAN	0325	42	10.	1	JAN	1350	167	292.	2	JAN	0015	292	8.	2	JAN	1040	417	0.
1	JAN	0330	43	10.	1	JAN	1355	168	252.	2	JAN	0020	293	7.	2	JAN	1045	418	0.
1	JAN	0335	44	10.	1	JAN	1400	169	215.	2	JAN	0025	294	6.	2	JAN	1050	419	0.
1	JAN	0340	45	10.	1	JAN	1405	170	193.	2	JAN	0030	295	5.	2	JAN	1055	420	0.
1	JAN	0345	46	10.	1	JAN	1410	171	174.	2	JAN	0035	296	5.	2	JAN	1100	421	0.
1	JAN	0350	47	10.	1	JAN	1415	172	157.	2	JAN	0040	297	4.	2	JAN	1105	422	0.
1	JAN	0355	48	10.	1	JAN	1420	173	143.	2	JAN	0045	298	4.	2	JAN	1110	423	0.
1	JAN	0400	49	10.	1	JAN	1425	174	130.	2	JAN	0050	299	4.	2	JAN	1115	424	0.
1	JAN	0405	50	10.	1	JAN	1430	175	117.	2	JAN	0055	300	3.	2	JAN	1120	425	0.
1	JAN	0410	51	11.	1	JAN	1435	176	106.	2	JAN	0100	301	3.	2	JAN	1125	426	0.
1	JAN	0415	52	11.	1	JAN	1440	177	97.	2	JAN	0105	302	3.	2	JAN	1130	427	0.
1	JAN	0420	53	11.	1	JAN	1445	178	88.	2	JAN	0110	303	3.	2	JAN	1135	428	0.
1	JAN	0425	54	12.	1	JAN	1450	179	80.	2	JAN	0115	304	3.	2	JAN	1140	429	0.
1	JAN	0430	55	12.	1	JAN	1455	180	73.	2	JAN	0120	305	3.	2	JAN	1145	430	0.

1 JAN 0435	56	12.	*	1 JAN 1500	181	68.	*	2 JAN 0125	306	2.	*	2 JAN 1150	431	0.
1 JAN 0440	57	12.	*	1 JAN 1505	182	64.	*	2 JAN 0130	307	2.	*	2 JAN 1155	432	0.
1 JAN 0445	58	12.	*	1 JAN 1510	183	61.	*	2 JAN 0135	308	2.	*	2 JAN 1200	433	0.
1 JAN 0450	59	12.	*	1 JAN 1515	184	59.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.
1 JAN 0455	60	12.	*	1 JAN 1520	185	57.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.
1 JAN 0500	61	12.	*	1 JAN 1525	186	55.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.
1 JAN 0505	62	12.	*	1 JAN 1530	187	53.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.
1 JAN 0510	63	12.	*	1 JAN 1535	188	50.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.
1 JAN 0515	64	12.	*	1 JAN 1540	189	48.	*	2 JAN 0205	314	1.	*	2 JAN 1230	439	0.
1 JAN 0520	65	12.	*	1 JAN 1545	190	45.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.
1 JAN 0525	66	12.	*	1 JAN 1550	191	43.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.
1 JAN 0530	67	13.	*	1 JAN 1555	192	42.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.
1 JAN 0535	68	13.	*	1 JAN 1600	193	41.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.
1 JAN 0540	69	13.	*	1 JAN 1605	194	41.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.
1 JAN 0545	70	13.	*	1 JAN 1610	195	40.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.
1 JAN 0550	71	13.	*	1 JAN 1615	196	40.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.
1 JAN 0555	72	13.	*	1 JAN 1620	197	40.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.
1 JAN 0600	73	13.	*	1 JAN 1625	198	40.	*	2 JAN 0250	323	0.	*	2 JAN 1315	448	0.
1 JAN 0605	74	13.	*	1 JAN 1630	199	40.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.
1 JAN 0610	75	13.	*	1 JAN 1635	200	40.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.
1 JAN 0615	76	13.	*	1 JAN 1640	201	39.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.
1 JAN 0620	77	14.	*	1 JAN 1645	202	38.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.
1 JAN 0625	78	14.	*	1 JAN 1650	203	35.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.
1 JAN 0630	79	14.	*	1 JAN 1655	204	33.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.
1 JAN 0635	80	15.	*	1 JAN 1700	205	30.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.
1 JAN 0640	81	15.	*	1 JAN 1705	206	29.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.
1 JAN 0645	82	15.	*	1 JAN 1710	207	27.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.
1 JAN 0650	83	15.	*	1 JAN 1715	208	26.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.
1 JAN 0655	84	15.	*	1 JAN 1720	209	26.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.
1 JAN 0700	85	15.	*	1 JAN 1725	210	26.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.
1 JAN 0705	86	15.	*	1 JAN 1730	211	25.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.
1 JAN 0710	87	15.	*	1 JAN 1735	212	25.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.
1 JAN 0715	88	16.	*	1 JAN 1740	213	25.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.
1 JAN 0720	89	16.	*	1 JAN 1745	214	25.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.
1 JAN 0725	90	16.	*	1 JAN 1750	215	25.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.
1 JAN 0730	91	16.	*	1 JAN 1755	216	25.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.
1 JAN 0735	92	16.	*	1 JAN 1800	217	24.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.
1 JAN 0740	93	16.	*	1 JAN 1805	218	22.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.
1 JAN 0745	94	16.	*	1 JAN 1810	219	21.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	16.	*	1 JAN 1815	220	19.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	16.	*	1 JAN 1820	221	18.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	16.	*	1 JAN 1825	222	17.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	16.	*	1 JAN 1830	223	16.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	16.	*	1 JAN 1835	224	16.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	16.	*	1 JAN 1840	225	16.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	17.	*	1 JAN 1845	226	15.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	17.	*	1 JAN 1850	227	15.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	18.	*	1 JAN 1855	228	15.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	18.	*	1 JAN 1900	229	15.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	19.	*	1 JAN 1905	230	15.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	20.	*	1 JAN 1910	231	14.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	20.	*	1 JAN 1915	232	14.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	20.	*	1 JAN 1920	233	14.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	21.	*	1 JAN 1925	234	14.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	21.	*	1 JAN 1930	235	14.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	21.	*	1 JAN 1935	236	14.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	21.	*	1 JAN 1940	237	14.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	22.	*	1 JAN 1945	238	14.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	22.	*	1 JAN 1950	239	14.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	23.	*	1 JAN 1955	240	14.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	23.	*	1 JAN 2000	241	13.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	23.	*	1 JAN 2005	242	13.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	24.	*	1 JAN 2010	243	13.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	24.	*	1 JAN 2015	244	12.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	25.	*	1 JAN 2020	245	12.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	25.	*	1 JAN 2025	246	12.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	26.	*	1 JAN 2030	247	12.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	26.	*	1 JAN 2035	248	11.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	27.	*	1 JAN 2040	249	11.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	28.	*	1 JAN 2045	250	11.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5548.	12.33		884.	232.	134.	134.
		(INCHES)	1.646	1.727	1.729	1.729
		(AC-FT)	438.	460.	460.	460.

CUMULATIVE AREA = 4.99 SQ MI

INTERPOLATED HYDROGRAPH AT C002

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	63.	1 JAN 2050	251	13.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	73.	1 JAN 2055	252	13.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	85.	1 JAN 2100	253	13.	2 JAN 0725	378	0.
1 JAN 0015	4	1.	1 JAN 1040	129	99.	1 JAN 2105	254	13.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	116.	1 JAN 2110	255	13.	2 JAN 0735	380	0.
1 JAN 0025	6	2.	1 JAN 1050	131	137.	1 JAN 2115	256	12.	2 JAN 0740	381	0.
1 JAN 0030	7	3.	1 JAN 1055	132	161.	1 JAN 2120	257	12.	2 JAN 0745	382	0.
1 JAN 0035	8	4.	1 JAN 1100	133	189.	1 JAN 2125	258	12.	2 JAN 0750	383	0.
1 JAN 0040	9	5.	1 JAN 1105	134	220.	1 JAN 2130	259	12.	2 JAN 0755	384	0.
1 JAN 0045	10	6.	1 JAN 1110	135	253.	1 JAN 2135	260	12.	2 JAN 0800	385	0.
1 JAN 0050	11	6.	1 JAN 1115	136	289.	1 JAN 2140	261	12.	2 JAN 0805	386	0.
1 JAN 0055	12	7.	1 JAN 1120	137	328.	1 JAN 2145	262	12.	2 JAN 0810	387	0.
1 JAN 0100	13	7.	1 JAN 1125	138	369.	1 JAN 2150	263	12.	2 JAN 0815	388	0.
1 JAN 0105	14	8.	1 JAN 1130	139	414.	1 JAN 2155	264	12.	2 JAN 0820	389	0.

1 JAN 0110	15	8.	*	1 JAN 1135	140	512.	*	1 JAN 2200	265	12.	*	2 JAN 0825	390	0.					
1 JAN 0115	16	8.	*	1 JAN 1140	141	689.	*	1 JAN 2205	266	12.	*	2 JAN 0830	391	0.					
1 JAN 0120	17	8.	*	1 JAN 1145	142	1014.	*	1 JAN 2210	267	12.	*	2 JAN 0835	392	0.					
1 JAN 0125	18	8.	*	1 JAN 1150	143	1569.	*	1 JAN 2215	268	12.	*	2 JAN 0840	393	0.					
1 JAN 0130	19	8.	*	1 JAN 1155	144	2370.	*	1 JAN 2220	269	12.	*	2 JAN 0845	394	0.					
1 JAN 0135	20	9.	*	1 JAN 1200	145	3512.	*	1 JAN 2225	270	12.	*	2 JAN 0850	395	0.					
1 JAN 0140	21	9.	*	1 JAN 1205	146	4721.	*	1 JAN 2230	271	12.	*	2 JAN 0855	396	0.					
1 JAN 0145	22	9.	*	1 JAN 1210	147	5827.	*	1 JAN 2235	272	12.	*	2 JAN 0900	397	0.					
1 JAN 0150	23	9.	*	1 JAN 1215	148	6463.	*	1 JAN 2240	273	12.	*	2 JAN 0905	398	0.					
1 JAN 0155	24	9.	*	1 JAN 1220	149	6492.	*	1 JAN 2245	274	12.	*	2 JAN 0910	399	0.					
1 JAN 0200	25	9.	*	1 JAN 1225	150	5968.	*	1 JAN 2250	275	12.	*	2 JAN 0915	400	0.					
1 JAN 0205	26	9.	*	1 JAN 1230	151	5217.	*	1 JAN 2255	276	11.	*	2 JAN 0920	401	0.					
1 JAN 0210	27	10.	*	1 JAN 1235	152	4483.	*	1 JAN 2300	277	11.	*	2 JAN 0925	402	0.					
1 JAN 0215	28	10.	*	1 JAN 1240	153	3838.	*	1 JAN 2305	278	11.	*	2 JAN 0930	403	0.					
1 JAN 0220	29	10.	*	1 JAN 1245	154	3274.	*	1 JAN 2310	279	11.	*	2 JAN 0935	404	0.					
1 JAN 0225	30	10.	*	1 JAN 1250	155	2775.	*	1 JAN 2315	280	11.	*	2 JAN 0940	405	0.					
1 JAN 0230	31	10.	*	1 JAN 1255	156	2329.	*	1 JAN 2320	281	11.	*	2 JAN 0945	406	0.					
1 JAN 0235	32	10.	*	1 JAN 1300	157	1910.	*	1 JAN 2325	282	11.	*	2 JAN 0950	407	0.					
1 JAN 0240	33	10.	*	1 JAN 1305	158	1497.	*	1 JAN 2330	283	11.	*	2 JAN 0955	408	0.					
1 JAN 0245	34	11.	*	1 JAN 1310	159	1208.	*	1 JAN 2335	284	11.	*	2 JAN 1000	409	0.					
1 JAN 0250	35	11.	*	1 JAN 1315	160	1015.	*	1 JAN 2340	285	11.	*	2 JAN 1005	410	0.					
1 JAN 0255	36	11.	*	1 JAN 1320	161	871.	*	1 JAN 2345	286	11.	*	2 JAN 1010	411	0.					
1 JAN 0300	37	11.	*	1 JAN 1325	162	741.	*	1 JAN 2350	287	11.	*	2 JAN 1015	412	0.					
1 JAN 0305	38	11.	*	1 JAN 1330	163	626.	*	1 JAN 2355	288	11.	*	2 JAN 1020	413	0.					
1 JAN 0310	39	11.	*	1 JAN 1335	164	539.	*	2 JAN 0000	289	11.	*	2 JAN 1025	414	0.					
1 JAN 0315	40	11.	*	1 JAN 1340	165	484.	*	2 JAN 0005	290	11.	*	2 JAN 1030	415	0.					
1 JAN 0320	41	11.	*	1 JAN 1345	166	434.	*	2 JAN 0010	291	10.	*	2 JAN 1035	416	0.					
1 JAN 0325	42	11.	*	1 JAN 1350	167	382.	*	2 JAN 0015	292	9.	*	2 JAN 1040	417	0.					
1 JAN 0330	43	11.	*	1 JAN 1355	168	336.	*	2 JAN 0020	293	8.	*	2 JAN 1045	418	0.					
1 JAN 0335	44	11.	*	1 JAN 1400	169	292.	*	2 JAN 0025	294	7.	*	2 JAN 1050	419	0.					
1 JAN 0340	45	11.	*	1 JAN 1405	170	265.	*	2 JAN 0030	295	6.	*	2 JAN 1055	420	0.					
1 JAN 0345	46	11.	*	1 JAN 1410	171	242.	*	2 JAN 0035	296	5.	*	2 JAN 1100	421	0.					
1 JAN 0350	47	11.	*	1 JAN 1415	172	222.	*	2 JAN 0040	297	5.	*	2 JAN 1105	422	0.					
1 JAN 0355	48	11.	*	1 JAN 1420	173	205.	*	2 JAN 0045	298	4.	*	2 JAN 1110	423	0.					
1 JAN 0400	49	12.	*	1 JAN 1425	174	189.	*	2 JAN 0050	299	4.	*	2 JAN 1115	424	0.					
1 JAN 0405	50	12.	*	1 JAN 1430	175	174.	*	2 JAN 0055	300	4.	*	2 JAN 1120	425	0.					
1 JAN 0410	51	12.	*	1 JAN 1435	176	159.	*	2 JAN 0100	301	4.	*	2 JAN 1125	426	0.					
1 JAN 0415	52	13.	*	1 JAN 1440	177	146.	*	2 JAN 0105	302	3.	*	2 JAN 1130	427	0.					
1 JAN 0420	53	13.	*	1 JAN 1445	178	133.	*	2 JAN 0110	303	3.	*	2 JAN 1135	428	0.					
1 JAN 0425	54	13.	*	1 JAN 1450	179	121.	*	2 JAN 0115	304	3.	*	2 JAN 1140	429	0.					
1 JAN 0430	55	14.	*	1 JAN 1455	180	111.	*	2 JAN 0120	305	3.	*	2 JAN 1145	430	0.					
1 JAN 0435	56	14.	*	1 JAN 1500	181	102.	*	2 JAN 0125	306	3.	*	2 JAN 1150	431	0.					
1 JAN 0440	57	14.	*	1 JAN 1505	182	95.	*	2 JAN 0130	307	3.	*	2 JAN 1155	432	0.					
1 JAN 0445	58	14.	*	1 JAN 1510	183	90.	*	2 JAN 0135	308	3.	*	2 JAN 1200	433	0.					
1 JAN 0450	59	14.	*	1 JAN 1515	184	86.	*	2 JAN 0140	309	2.	*	2 JAN 1205	434	0.					
1 JAN 0455	60	14.	*	1 JAN 1520	185	83.	*	2 JAN 0145	310	2.	*	2 JAN 1210	435	0.					
1 JAN 0500	61	14.	*	1 JAN 1525	186	80.	*	2 JAN 0150	311	2.	*	2 JAN 1215	436	0.					
1 JAN 0505	62	14.	*	1 JAN 1530	187	76.	*	2 JAN 0155	312	2.	*	2 JAN 1220	437	0.					
1 JAN 0510	63	14.	*	1 JAN 1535	188	73.	*	2 JAN 0200	313	2.	*	2 JAN 1225	438	0.					
1 JAN 0515	64	14.	*	1 JAN 1540	189	69.	*	2 JAN 0205	314	2.	*	2 JAN 1230	439	0.					
1 JAN 0520	65	14.	*	1 JAN 1545	190	66.	*	2 JAN 0210	315	1.	*	2 JAN 1235	440	0.					
1 JAN 0525	66	14.	*	1 JAN 1550	191	63.	*	2 JAN 0215	316	1.	*	2 JAN 1240	441	0.					
1 JAN 0530	67	14.	*	1 JAN 1555	192	61.	*	2 JAN 0220	317	1.	*	2 JAN 1245	442	0.					
1 JAN 0535	68	14.	*	1 JAN 1600	193	60.	*	2 JAN 0225	318	1.	*	2 JAN 1250	443	0.					
1 JAN 0540	69	14.	*	1 JAN 1605	194	60.	*	2 JAN 0230	319	1.	*	2 JAN 1255	444	0.					
1 JAN 0545	70	15.	*	1 JAN 1610	195	59.	*	2 JAN 0235	320	1.	*	2 JAN 1300	445	0.					
1 JAN 0550	71	15.	*	1 JAN 1615	196	59.	*	2 JAN 0240	321	1.	*	2 JAN 1305	446	0.					
1 JAN 0555	72	15.	*	1 JAN 1620	197	59.	*	2 JAN 0245	322	1.	*	2 JAN 1310	447	0.					
1 JAN 0600	73	15.	*	1 JAN 1625	198	59.	*	2 JAN 0250	323	1.	*	2 JAN 1315	448	0.					
1 JAN 0605	74	15.	*	1 JAN 1630	199	58.	*	2 JAN 0255	324	0.	*	2 JAN 1320	449	0.					
1 JAN 0610	75	15.	*	1 JAN 1635	200	58.	*	2 JAN 0300	325	0.	*	2 JAN 1325	450	0.					
1 JAN 0615	76	15.	*	1 JAN 1640	201	57.	*	2 JAN 0305	326	0.	*	2 JAN 1330	451	0.					
1 JAN 0620	77	16.	*	1 JAN 1645	202	56.	*	2 JAN 0310	327	0.	*	2 JAN 1335	452	0.					
1 JAN 0625	78	16.	*	1 JAN 1650	203	53.	*	2 JAN 0315	328	0.	*	2 JAN 1340	453	0.					
1 JAN 0630	79	16.	*	1 JAN 1655	204	50.	*	2 JAN 0320	329	0.	*	2 JAN 1345	454	0.					
1 JAN 0635	80	17.	*	1 JAN 1700	205	47.	*	2 JAN 0325	330	0.	*	2 JAN 1350	455	0.					
1 JAN 0640	81	17.	*	1 JAN 1705	206	45.	*	2 JAN 0330	331	0.	*	2 JAN 1355	456	0.					
1 JAN 0645	82	17.	*	1 JAN 1710	207	44.	*	2 JAN 0335	332	0.	*	2 JAN 1400	457	0.					
1 JAN 0650	83	17.	*	1 JAN 1715	208	43.	*	2 JAN 0340	333	0.	*	2 JAN 1405	458	0.					
1 JAN 0655	84	17.	*	1 JAN 1720	209	42.	*	2 JAN 0345	334	0.	*	2 JAN 1410	459	0.					
1 JAN 0700	85	18.	*	1 JAN 1725	210	41.	*	2 JAN 0350	335	0.	*	2 JAN 1415	460	0.					
1 JAN 0705	86	18.	*	1 JAN 1730	211	41.	*	2 JAN 0355	336	0.	*	2 JAN 1420	461	0.					
1 JAN 0710	87	18.	*	1 JAN 1735	212	41.	*	2 JAN 0400	337	0.	*	2 JAN 1425	462	0.					
1 JAN 0715	88	18.	*	1 JAN 1740	213	41.	*	2 JAN 0405	338	0.	*	2 JAN 1430	463	0.					
1 JAN 0720	89	18.	*	1 JAN 1745	214	41.	*	2 JAN 0410	339	0.	*	2 JAN 1435	464	0.					
1 JAN 0725	90	18.	*	1 JAN 1750	215	41.	*	2 JAN 0415	340	0.	*	2 JAN 1440	465	0.					
1 JAN 0730	91	18.	*	1 JAN 1755	216	40.	*	2 JAN 0420	341	0.	*	2 JAN 1445	466	0.					
1 JAN 0735	92	18.	*	1 JAN 1800	217	38.	*	2 JAN 0425	342	0.	*	2 JAN 1450	467	0.					
1 JAN 0740	93	18.	*	1 JAN 1805	218	35.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.					
1 JAN 0745	94	18.	*	1 JAN 1810	219	32.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.					
1 JAN 0750	95	18.	*	1 JAN 1815	220	30.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.					
1 JAN 0755	96	18.	*	1 JAN 1820	221	27.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.					
1 JAN 0800	97	18.	*	1 JAN 1825	222	26.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.					
1 JAN 0805	98	18.	*	1 JAN 1830	223	25.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.					
1 JAN 0810	99	19.	*	1 JAN 1835	224	24.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.					
1 JAN 0815	100	19.	*	1 JAN 1840	225	24.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.					
1 JAN 0820	101	19.	*	1 JAN 1845	226	23.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.					
1 JAN 0825	102	20.	*	1 JAN 1850	227	23.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.					
1 JAN 0830	103	20.	*	1 JAN 1855	228	23.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.					
1 JAN 0835	104	21.	*	1 JAN 1900	229	23.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.					
1 JAN 0840	105	22.	*	1 JAN 1905	230	23.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.					
1 JAN 0845	106	22.	*	1 JAN 1910	231	23.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.					
1 JAN 0850	107	23.	*	1 JAN 1915	232	23.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.					
1 JAN 0855	108	23.	*	1 JAN 1920	233	23.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.					
1 JAN 0900	109	24.	*	1 JAN 1925	234	23.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.					
1 JAN 0905	110	24.	*	1 JAN 1930	235	23.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.					
1 JAN 0910	111	24.	*	1 JAN 1935	236	23.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.					
1 JAN 0915	112	24.	*	1 JAN 1940	237	23.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.					
1 JAN 0920	113	25.	*	1 JAN 1945	238	23.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.					
1 JAN 0925	114	25.	*	1 JAN 1950	239	23.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.					
1 JAN 0930	115	26.	*	1 JAN 1955	240	23.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.					
1 JAN 0935	116	26.	*	1 JAN 2000	241	22.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.					
1 JAN 0940	117	27.	*	1 JAN 2005	242	21.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.					
1 JAN 0945	118	28.	*	1 JAN 2010	243	19.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.					
1 JAN 0950	119	30.	*	1 JAN 2015	244	17.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.					
1 JAN 0955	120	33.	*	1 JAN 2020	245	16.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.					

1	JAN	1000	121	36.	*	1	JAN	2025	246	15.	*	2	JAN	0650	371	0.	*	2	JAN	1715	496	0.
1	JAN	1005	122	39.	*	1	JAN	2030	247	14.	*	2	JAN	0655	372	0.	*	2	JAN	1720	497	0.
1	JAN	1010	123	44.	*	1	JAN	2035	248	14.	*	2	JAN	0700	373	0.	*	2	JAN	1725	498	0.
1	JAN	1015	124	49.	*	1	JAN	2040	249	14.	*	2	JAN	0705	374	0.	*	2	JAN	1730	499	0.
1	JAN	1020	125	55.	*	1	JAN	2045	250	13.	*	2	JAN	0710	375	0.	*	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 6492.	12.33	1075.	283.	163.	163.
		(INCHES) 2.002	2.108	2.110	2.110
		(AC-FT) 533.	561.	562.	562.

CUMULATIVE AREA = 4.99 SQ MI

119 KK C003L

120 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	500	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

122 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT C003L
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	*	1	JAN	1025	126	52.	*	1	JAN	2050	251	21.	*	2	JAN	0715	376	0.
1	JAN	0005	2	0.	*	1	JAN	1030	127	58.	*	1	JAN	2055	252	20.	*	2	JAN	0720	377	0.
1	JAN	0010	3	0.	*	1	JAN	1035	128	65.	*	1	JAN	2100	253	19.	*	2	JAN	0725	378	0.
1	JAN	0015	4	0.	*	1	JAN	1040	129	73.	*	1	JAN	2105	254	19.	*	2	JAN	0730	379	0.
1	JAN	0020	5	1.	*	1	JAN	1045	130	82.	*	1	JAN	2110	255	18.	*	2	JAN	0735	380	0.
1	JAN	0025	6	1.	*	1	JAN	1050	131	94.	*	1	JAN	2115	256	18.	*	2	JAN	0740	381	0.
1	JAN	0030	7	2.	*	1	JAN	1055	132	108.	*	1	JAN	2120	257	17.	*	2	JAN	0745	382	0.
1	JAN	0035	8	2.	*	1	JAN	1100	133	124.	*	1	JAN	2125	258	17.	*	2	JAN	0750	383	0.
1	JAN	0040	9	3.	*	1	JAN	1105	134	144.	*	1	JAN	2130	259	17.	*	2	JAN	0755	384	0.
1	JAN	0045	10	3.	*	1	JAN	1110	135	166.	*	1	JAN	2135	260	16.	*	2	JAN	0800	385	0.
1	JAN	0050	11	4.	*	1	JAN	1115	136	191.	*	1	JAN	2140	261	16.	*	2	JAN	0805	386	0.
1	JAN	0055	12	4.	*	1	JAN	1120	137	221.	*	1	JAN	2145	262	16.	*	2	JAN	0810	387	0.
1	JAN	0100	13	5.	*	1	JAN	1125	138	255.	*	1	JAN	2150	263	16.	*	2	JAN	0815	388	0.
1	JAN	0105	14	5.	*	1	JAN	1130	139	290.	*	1	JAN	2155	264	16.	*	2	JAN	0820	389	0.
1	JAN	0110	15	6.	*	1	JAN	1135	140	349.	*	1	JAN	2200	265	15.	*	2	JAN	0825	390	0.
1	JAN	0115	16	6.	*	1	JAN	1140	141	479.	*	1	JAN	2205	266	15.	*	2	JAN	0830	391	0.
1	JAN	0120	17	7.	*	1	JAN	1145	142	693.	*	1	JAN	2210	267	15.	*	2	JAN	0835	392	0.
1	JAN	0125	18	7.	*	1	JAN	1150	143	1053.	*	1	JAN	2215	268	15.	*	2	JAN	0840	393	0.
1	JAN	0130	19	8.	*	1	JAN	1155	144	1592.	*	1	JAN	2220	269	15.	*	2	JAN	0845	394	0.
1	JAN	0135	20	8.	*	1	JAN	1200	145	2420.	*	1	JAN	2225	270	15.	*	2	JAN	0850	395	0.
1	JAN	0140	21	8.	*	1	JAN	1205	146	3567.	*	1	JAN	2230	271	15.	*	2	JAN	0855	396	0.
1	JAN	0145	22	9.	*	1	JAN	1210	147	4775.	*	1	JAN	2235	272	15.	*	2	JAN	0900	397	0.
1	JAN	0150	23	9.	*	1	JAN	1215	148	5793.	*	1	JAN	2240	273	15.	*	2	JAN	0905	398	0.
1	JAN	0155	24	9.	*	1	JAN	1220	149	6386.	*	1	JAN	2245	274	15.	*	2	JAN	0910	399	0.
1	JAN	0200	25	10.	*	1	JAN	1225	150	6601.	*	1	JAN	2250	275	14.	*	2	JAN	0915	400	0.
1	JAN	0205	26	10.	*	1	JAN	1230	151	6360.	*	1	JAN	2255	276	14.	*	2	JAN	0920	401	0.
1	JAN	0210	27	10.	*	1	JAN	1235	152	5841.	*	1	JAN	2300	277	14.	*	2	JAN	0925	402	0.
1	JAN	0215	28	10.	*	1	JAN	1240	153	5233.	*	1	JAN	2305	278	14.	*	2	JAN	0930	403	0.
1	JAN	0220	29	11.	*	1	JAN	1245	154	4609.	*	1	JAN	2310	279	14.	*	2	JAN	0935	404	0.
1	JAN	0225	30	11.	*	1	JAN	1250	155	4032.	*	1	JAN	2315	280	14.	*	2	JAN	0940	405	0.
1	JAN	0230	31	11.	*	1	JAN	1255	156	3493.	*	1	JAN	2320	281	14.	*	2	JAN	0945	406	0.
1	JAN	0235	32	11.	*	1	JAN	1300	157	3012.	*	1	JAN	2325	282	14.	*	2	JAN	0950	407	0.
1	JAN	0240	33	11.	*	1	JAN	1305	158	2556.	*	1	JAN	2330	283	14.	*	2	JAN	0955	408	0.
1	JAN	0245	34	12.	*	1	JAN	1310	159	2181.	*	1	JAN	2335	284	14.	*	2	JAN	1000	409	0.
1	JAN	0250	35	12.	*	1	JAN	1315	160	1850.	*	1	JAN	2340	285	14.	*	2	JAN	1005	410	0.
1	JAN	0255	36	12.	*	1	JAN	1320	161	1595.	*	1	JAN	2345	286	14.	*	2	JAN	1010	411	0.
1	JAN	0300	37	12.	*	1	JAN	1325	162	1384.	*	1	JAN	2350	287	14.	*	2	JAN	1015	412	0.
1	JAN	0305	38	12.	*	1	JAN	1330	163	1202.	*	1	JAN	2355	288	14.	*	2	JAN	1020	413	0.
1	JAN	0310	39	12.	*	1	JAN	1335	164	1058.	*	2	JAN	0000	289	14.	*	2	JAN	1025	414	0.
1	JAN	0315	40	12.	*	1	JAN	1340	165	931.	*	2	JAN	0005	290	13.	*	2	JAN	1030	415	0.
1	JAN	0320	41	13.	*	1	JAN	1345	166	822.	*	2	JAN	0010	291	13.	*	2	JAN	1035	416	0.
1	JAN	0325	42	13.	*	1	JAN	1350	167	731.	*	2	JAN	0015	292	13.	*	2	JAN	1040	417	0.
1	JAN	0330	43	13.	*	1	JAN	1355	168	650.	*	2	JAN	0020	293	12.	*	2	JAN	1045	418	0.
1	JAN	0335	44	13.	*	1	JAN	1400	169	577.	*	2	JAN	0025	294	11.	*	2	JAN	1050	419	0.
1	JAN	0340	45	13.	*	1	JAN	1405	170	514.	*	2	JAN	0030	295	11.	*	2	JAN	1055	420	0.
1	JAN	0345	46	13.	*	1	JAN	1410	171	461.	*	2	JAN	0035	296	10.	*	2	JAN	1100	421	0.
1	JAN	0350	47	13.	*	1	JAN	1415	172	416.	*	2	JAN	0040	297	9.	*	2	JAN	1105	422	0.
1	JAN	0355	48	13.	*	1	JAN	1420	173	376.	*	2	JAN	0045	298	9.	*	2	JAN	1110	423	0.
1	JAN	0400	49	14.	*	1	JAN	1425	174	341.	*	2	JAN	0050	299	8.	*	2	JAN	1115	424	0.
1	JAN	0405	50	14.	*	1	JAN	1430	175	312.	*	2	JAN	0055	300	8.	*	2	JAN	1120	425	0.

1 JAN 0410	51	14.	*	1 JAN 1435	176	287.	*	2 JAN 0100	301	7.	*	2 JAN 1125	426	0.
1 JAN 0415	52	14.	*	1 JAN 1440	177	265.	*	2 JAN 0105	302	7.	*	2 JAN 1130	427	0.
1 JAN 0420	53	15.	*	1 JAN 1445	178	244.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	15.	*	1 JAN 1450	179	224.	*	2 JAN 0115	304	6.	*	2 JAN 1140	429	0.
1 JAN 0430	55	15.	*	1 JAN 1455	180	206.	*	2 JAN 0120	305	6.	*	2 JAN 1145	430	0.
1 JAN 0435	56	15.	*	1 JAN 1500	181	190.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	15.	*	1 JAN 1505	182	176.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.
1 JAN 0445	58	16.	*	1 JAN 1510	183	164.	*	2 JAN 0135	308	5.	*	2 JAN 1200	433	0.
1 JAN 0450	59	16.	*	1 JAN 1515	184	154.	*	2 JAN 0140	309	5.	*	2 JAN 1205	434	0.
1 JAN 0455	60	16.	*	1 JAN 1520	185	144.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	16.	*	1 JAN 1525	186	135.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.
1 JAN 0505	62	16.	*	1 JAN 1530	187	128.	*	2 JAN 0155	312	4.	*	2 JAN 1220	437	0.
1 JAN 0510	63	17.	*	1 JAN 1535	188	120.	*	2 JAN 0200	313	4.	*	2 JAN 1225	438	0.
1 JAN 0515	64	17.	*	1 JAN 1540	189	114.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	17.	*	1 JAN 1545	190	108.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	17.	*	1 JAN 1550	191	102.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	17.	*	1 JAN 1555	192	97.	*	2 JAN 0220	317	3.	*	2 JAN 1245	442	0.
1 JAN 0535	68	17.	*	1 JAN 1600	193	93.	*	2 JAN 0225	318	3.	*	2 JAN 1250	443	0.
1 JAN 0540	69	17.	*	1 JAN 1605	194	89.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	17.	*	1 JAN 1610	195	86.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	17.	*	1 JAN 1615	196	83.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	17.	*	1 JAN 1620	197	80.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	17.	*	1 JAN 1625	198	78.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	18.	*	1 JAN 1630	199	76.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	18.	*	1 JAN 1635	200	75.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	18.	*	1 JAN 1640	201	74.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.
1 JAN 0620	77	18.	*	1 JAN 1645	202	72.	*	2 JAN 0310	327	2.	*	2 JAN 1335	452	0.
1 JAN 0625	78	18.	*	1 JAN 1650	203	70.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	19.	*	1 JAN 1655	204	69.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	19.	*	1 JAN 1700	205	67.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	19.	*	1 JAN 1705	206	64.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	20.	*	1 JAN 1710	207	62.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	20.	*	1 JAN 1715	208	60.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	20.	*	1 JAN 1720	209	59.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	20.	*	1 JAN 1725	210	57.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	20.	*	1 JAN 1730	211	56.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	21.	*	1 JAN 1735	212	55.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	21.	*	1 JAN 1740	213	54.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	21.	*	1 JAN 1745	214	53.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	21.	*	1 JAN 1750	215	52.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	21.	*	1 JAN 1755	216	51.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	21.	*	1 JAN 1800	217	50.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	21.	*	1 JAN 1805	218	49.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	22.	*	1 JAN 1810	219	47.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	22.	*	1 JAN 1815	220	46.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	22.	*	1 JAN 1820	221	44.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	22.	*	1 JAN 1825	222	42.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	22.	*	1 JAN 1830	223	41.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	22.	*	1 JAN 1835	224	39.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	22.	*	1 JAN 1840	225	38.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	23.	*	1 JAN 1845	226	37.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	23.	*	1 JAN 1850	227	36.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	23.	*	1 JAN 1855	228	35.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	24.	*	1 JAN 1900	229	34.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	24.	*	1 JAN 1905	230	33.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	25.	*	1 JAN 1910	231	33.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	25.	*	1 JAN 1915	232	32.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	26.	*	1 JAN 1920	233	32.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	26.	*	1 JAN 1925	234	31.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	27.	*	1 JAN 1930	235	31.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	27.	*	1 JAN 1935	236	31.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	28.	*	1 JAN 1940	237	31.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	28.	*	1 JAN 1945	238	30.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	29.	*	1 JAN 1950	239	30.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	29.	*	1 JAN 1955	240	30.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	30.	*	1 JAN 2000	241	30.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	30.	*	1 JAN 2005	242	29.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	31.	*	1 JAN 2010	243	28.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	33.	*	1 JAN 2015	244	27.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	34.	*	1 JAN 2020	245	26.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	36.	*	1 JAN 2025	246	25.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	38.	*	1 JAN 2030	247	24.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	41.	*	1 JAN 2035	248	23.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	44.	*	1 JAN 2040	249	22.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	48.	*	1 JAN 2045	250	21.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6601.	12.42		1243.	328.	190.	190.
		(INCHES)	2.034	2.150	2.153	2.153
		(AC-FT)	616.	652.	652.	652.

CUMULATIVE AREA = 5.68 SQ MI

****

HYDROGRAPH AT C003L
TRANSPOSITION AREA 1.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	51.	*	1 JAN 2050	251	20.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	56.	*	1 JAN 2055	252	20.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	63.	*	1 JAN 2100	253	19.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	71.	*	1 JAN 2105	254	19.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	80.	*	1 JAN 2110	255	18.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	92.	*	1 JAN 2115	256	18.	*	2 JAN 0740	381	0.
1 JAN 0030	7	2.	*	1 JAN 1055	132	105.	*	1 JAN 2120	257	17.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	121.	*	1 JAN 2125	258	17.	*	2 JAN 0750	383	0.

1 JAN	0040	9	3.	*	1 JAN	1105	134	141.	*	1 JAN	2130	259	17.	*	2 JAN	0755	384	0.
1 JAN	0045	10	3.	*	1 JAN	1110	135	162.	*	1 JAN	2135	260	16.	*	2 JAN	0800	385	0.
1 JAN	0050	11	4.	*	1 JAN	1115	136	187.	*	1 JAN	2140	261	16.	*	2 JAN	0805	386	0.
1 JAN	0055	12	4.	*	1 JAN	1120	137	216.	*	1 JAN	2145	262	16.	*	2 JAN	0810	387	0.
1 JAN	0100	13	5.	*	1 JAN	1125	138	249.	*	1 JAN	2150	263	16.	*	2 JAN	0815	388	0.
1 JAN	0105	14	5.	*	1 JAN	1130	139	285.	*	1 JAN	2155	264	15.	*	2 JAN	0820	389	0.
1 JAN	0110	15	6.	*	1 JAN	1135	140	343.	*	1 JAN	2200	265	15.	*	2 JAN	0825	390	0.
1 JAN	0115	16	6.	*	1 JAN	1140	141	471.	*	1 JAN	2205	266	15.	*	2 JAN	0830	391	0.
1 JAN	0120	17	7.	*	1 JAN	1145	142	683.	*	1 JAN	2210	267	15.	*	2 JAN	0835	392	0.
1 JAN	0125	18	7.	*	1 JAN	1150	143	1039.	*	1 JAN	2215	268	15.	*	2 JAN	0840	393	0.
1 JAN	0130	19	8.	*	1 JAN	1155	144	1574.	*	1 JAN	2220	269	15.	*	2 JAN	0845	394	0.
1 JAN	0135	20	8.	*	1 JAN	1200	145	2394.	*	1 JAN	2225	270	15.	*	2 JAN	0850	395	0.
1 JAN	0140	21	8.	*	1 JAN	1205	146	3525.	*	1 JAN	2230	271	15.	*	2 JAN	0855	396	0.
1 JAN	0145	22	9.	*	1 JAN	1210	147	4725.	*	1 JAN	2235	272	15.	*	2 JAN	0900	397	0.
1 JAN	0150	23	9.	*	1 JAN	1215	148	5736.	*	1 JAN	2240	273	14.	*	2 JAN	0905	398	0.
1 JAN	0155	24	9.	*	1 JAN	1220	149	6326.	*	1 JAN	2245	274	14.	*	2 JAN	0910	399	0.
1 JAN	0200	25	10.	*	1 JAN	1225	150	6543.	*	1 JAN	2250	275	14.	*	2 JAN	0915	400	0.
1 JAN	0205	26	10.	*	1 JAN	1230	151	6305.	*	1 JAN	2255	276	14.	*	2 JAN	0920	401	0.
1 JAN	0210	27	10.	*	1 JAN	1235	152	5791.	*	1 JAN	2300	277	14.	*	2 JAN	0925	402	0.
1 JAN	0215	28	10.	*	1 JAN	1240	153	5190.	*	1 JAN	2305	278	14.	*	2 JAN	0930	403	0.
1 JAN	0220	29	10.	*	1 JAN	1245	154	4569.	*	1 JAN	2310	279	14.	*	2 JAN	0935	404	0.
1 JAN	0225	30	11.	*	1 JAN	1250	155	3998.	*	1 JAN	2315	280	14.	*	2 JAN	0940	405	0.
1 JAN	0230	31	11.	*	1 JAN	1255	156	3462.	*	1 JAN	2320	281	14.	*	2 JAN	0945	406	0.
1 JAN	0235	32	11.	*	1 JAN	1300	157	2986.	*	1 JAN	2325	282	14.	*	2 JAN	0950	407	0.
1 JAN	0240	33	11.	*	1 JAN	1305	158	2532.	*	1 JAN	2330	283	14.	*	2 JAN	0955	408	0.
1 JAN	0245	34	11.	*	1 JAN	1310	159	2162.	*	1 JAN	2335	284	14.	*	2 JAN	1000	409	0.
1 JAN	0250	35	12.	*	1 JAN	1315	160	1833.	*	1 JAN	2340	285	14.	*	2 JAN	1005	410	0.
1 JAN	0255	36	12.	*	1 JAN	1320	161	1582.	*	1 JAN	2345	286	14.	*	2 JAN	1010	411	0.
1 JAN	0300	37	12.	*	1 JAN	1325	162	1372.	*	1 JAN	2350	287	14.	*	2 JAN	1015	412	0.
1 JAN	0305	38	12.	*	1 JAN	1330	163	1192.	*	1 JAN	2355	288	14.	*	2 JAN	1020	413	0.
1 JAN	0310	39	12.	*	1 JAN	1335	164	1049.	*	2 JAN	0000	289	14.	*	2 JAN	1025	414	0.
1 JAN	0315	40	12.	*	1 JAN	1340	165	922.	*	2 JAN	0005	290	13.	*	2 JAN	1030	415	0.
1 JAN	0320	41	12.	*	1 JAN	1345	166	814.	*	2 JAN	0010	291	13.	*	2 JAN	1035	416	0.
1 JAN	0325	42	13.	*	1 JAN	1350	167	724.	*	2 JAN	0015	292	12.	*	2 JAN	1040	417	0.
1 JAN	0330	43	13.	*	1 JAN	1355	168	643.	*	2 JAN	0020	293	12.	*	2 JAN	1045	418	0.
1 JAN	0335	44	13.	*	1 JAN	1400	169	571.	*	2 JAN	0025	294	11.	*	2 JAN	1050	419	0.
1 JAN	0340	45	13.	*	1 JAN	1405	170	508.	*	2 JAN	0030	295	11.	*	2 JAN	1055	420	0.
1 JAN	0345	46	13.	*	1 JAN	1410	171	456.	*	2 JAN	0035	296	10.	*	2 JAN	1100	421	0.
1 JAN	0350	47	13.	*	1 JAN	1415	172	411.	*	2 JAN	0040	297	9.	*	2 JAN	1105	422	0.
1 JAN	0355	48	13.	*	1 JAN	1420	173	371.	*	2 JAN	0045	298	9.	*	2 JAN	1110	423	0.
1 JAN	0400	49	13.	*	1 JAN	1425	174	337.	*	2 JAN	0050	299	8.	*	2 JAN	1115	424	0.
1 JAN	0405	50	14.	*	1 JAN	1430	175	308.	*	2 JAN	0055	300	8.	*	2 JAN	1120	425	0.
1 JAN	0410	51	14.	*	1 JAN	1435	176	284.	*	2 JAN	0100	301	7.	*	2 JAN	1125	426	0.
1 JAN	0415	52	14.	*	1 JAN	1440	177	261.	*	2 JAN	0105	302	7.	*	2 JAN	1130	427	0.
1 JAN	0420	53	14.	*	1 JAN	1445	178	241.	*	2 JAN	0110	303	6.	*	2 JAN	1135	428	0.
1 JAN	0425	54	15.	*	1 JAN	1450	179	221.	*	2 JAN	0115	304	6.	*	2 JAN	1140	429	0.
1 JAN	0430	55	15.	*	1 JAN	1455	180	203.	*	2 JAN	0120	305	6.	*	2 JAN	1145	430	0.
1 JAN	0435	56	15.	*	1 JAN	1500	181	187.	*	2 JAN	0125	306	5.	*	2 JAN	1150	431	0.
1 JAN	0440	57	15.	*	1 JAN	1505	182	174.	*	2 JAN	0130	307	5.	*	2 JAN	1155	432	0.
1 JAN	0445	58	16.	*	1 JAN	1510	183	162.	*	2 JAN	0135	308	5.	*	2 JAN	1200	433	0.
1 JAN	0450	59	16.	*	1 JAN	1515	184	151.	*	2 JAN	0140	309	5.	*	2 JAN	1205	434	0.
1 JAN	0455	60	16.	*	1 JAN	1520	185	142.	*	2 JAN	0145	310	4.	*	2 JAN	1210	435	0.
1 JAN	0500	61	16.	*	1 JAN	1525	186	133.	*	2 JAN	0150	311	4.	*	2 JAN	1215	436	0.
1 JAN	0505	62	16.	*	1 JAN	1530	187	125.	*	2 JAN	0155	312	4.	*	2 JAN	1220	437	0.
1 JAN	0510	63	16.	*	1 JAN	1535	188	118.	*	2 JAN	0200	313	4.	*	2 JAN	1225	438	0.
1 JAN	0515	64	17.	*	1 JAN	1540	189	112.	*	2 JAN	0205	314	3.	*	2 JAN	1230	439	0.
1 JAN	0520	65	17.	*	1 JAN	1545	190	106.	*	2 JAN	0210	315	3.	*	2 JAN	1235	440	0.
1 JAN	0525	66	17.	*	1 JAN	1550	191	100.	*	2 JAN	0215	316	3.	*	2 JAN	1240	441	0.
1 JAN	0530	67	17.	*	1 JAN	1555	192	95.	*	2 JAN	0220	317	3.	*	2 JAN	1245	442	0.
1 JAN	0535	68	17.	*	1 JAN	1600	193	91.	*	2 JAN	0225	318	3.	*	2 JAN	1250	443	0.
1 JAN	0540	69	17.	*	1 JAN	1605	194	87.	*	2 JAN	0230	319	2.	*	2 JAN	1255	444	0.
1 JAN	0545	70	17.	*	1 JAN	1610	195	84.	*	2 JAN	0235	320	2.	*	2 JAN	1300	445	0.
1 JAN	0550	71	17.	*	1 JAN	1615	196	81.	*	2 JAN	0240	321	2.	*	2 JAN	1305	446	0.
1 JAN	0555	72	17.	*	1 JAN	1620	197	79.	*	2 JAN	0245	322	2.	*	2 JAN	1310	447	0.
1 JAN	0600	73	17.	*	1 JAN	1625	198	77.	*	2 JAN	0250	323	2.	*	2 JAN	1315	448	0.
1 JAN	0605	74	17.	*	1 JAN	1630	199	75.	*	2 JAN	0255	324	2.	*	2 JAN	1320	449	0.
1 JAN	0610	75	18.	*	1 JAN	1635	200	74.	*	2 JAN	0300	325	2.	*	2 JAN	1325	450	0.
1 JAN	0615	76	18.	*	1 JAN	1640	201	72.	*	2 JAN	0305	326	2.	*	2 JAN	1330	451	0.
1 JAN	0620	77	18.	*	1 JAN	1645	202	71.	*	2 JAN	0310	327	1.	*	2 JAN	1335	452	0.
1 JAN	0625	78	18.	*	1 JAN	1650	203	69.	*	2 JAN	0315	328	1.	*	2 JAN	1340	453	0.
1 JAN	0630	79	19.	*	1 JAN	1655	204	67.	*	2 JAN	0320	329	1.	*	2 JAN	1345	454	0.
1 JAN	0635	80	19.	*	1 JAN	1700	205	65.	*	2 JAN	0325	330	1.	*	2 JAN	1350	455	0.
1 JAN	0640	81	19.	*	1 JAN	1705	206	63.	*	2 JAN	0330	331	1.	*	2 JAN	1355	456	0.
1 JAN	0645	82	19.	*	1 JAN	1710	207	61.	*	2 JAN	0335	332	1.	*	2 JAN	1400	457	0.
1 JAN	0650	83	20.	*	1 JAN	1715	208	59.	*	2 JAN	0340	333	1.	*	2 JAN	1405	458	0.
1 JAN	0655	84	20.	*	1 JAN	1720	209	58.	*	2 JAN	0345	334	1.	*	2 JAN	1410	459	0.
1 JAN	0700	85	20.	*	1 JAN	1725	210	56.	*	2 JAN	0350	335	1.	*	2 JAN	1415	460	0.
1 JAN	0705	86	20.	*	1 JAN	1730	211	55.	*	2 JAN	0355	336	1.	*	2 JAN	1420	461	0.
1 JAN	0710	87	21.	*	1 JAN	1735	212	54.	*	2 JAN	0400	337	1.	*	2 JAN	1425	462	0.
1 JAN	0715	88	21.	*	1 JAN	1740	213	53.	*	2 JAN	0405	338	1.	*	2 JAN	1430	463	0.
1 JAN	0720	89	21.	*	1 JAN	1745	214	52.	*	2 JAN	0410	339	1.	*	2 JAN	1435	464	0.
1 JAN	0725	90	21.	*	1 JAN	1750	215	51.	*	2 JAN	0415	340	1.	*	2 JAN	1440	465	0.
1 JAN	0730	91	21.	*	1 JAN	1755	216	50.	*	2 JAN	0420	341	1.	*	2 JAN	1445	466	0.
1 JAN	0735	92	21.	*	1 JAN	1800	217	49.	*	2 JAN	0425	342	1.	*	2 JAN	1450	467	0.
1 JAN	0740	93	21.	*	1 JAN	1805	218	48.	*	2 JAN	0430	343	1.	*	2 JAN	1455	468	0.
1 JAN	0745	94	21.	*	1 JAN	1810	219	47.	*	2 JAN	0435	344	1.	*	2 JAN	1500	469	0.
1 JAN	0750	95	22.	*	1 JAN	1815	220	45.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.
1 JAN	0755	96	22.	*	1 JAN	1820	221	43.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.
1 JAN	0800	97	22.	*	1 JAN	1825	222	42.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.
1 JAN	0805	98	22.	*	1 JAN	1830	223	40.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.
1 JAN	0810	99	22.	*	1 JAN	1835	224	39.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.
1 JAN	0815	100	22.	*	1 JAN	1840	225	37.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.
1 JAN	0820	101	23.	*	1 JAN	1845	226	36.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.
1 JAN	0825	102	23.	*	1 JAN	1850	227	35.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.
1 JAN	0830	103	23.	*	1 JAN	1855	228	34.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.
1 JAN	0835	104	24.	*	1 JAN	1900	229	33.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.
1 JAN	0840	105	24.	*	1 JAN	1905	230	33.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.
1 JAN	0845	106	25.	*	1 JAN	1910	231	32.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.
1 JAN	0850	107	25.	*	1 JAN	1915	232	31.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	26.	*	1 JAN	1920	233	31.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	26.	*	1 JAN	1925	234	31.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	27.	*	1 JAN	1930	235	30.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	27.	*	1 JAN	1935	236	30.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	28.	*	1 JAN	1940	237	30.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	28.	*	1 JAN	1945	238	30.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	29.	*	1 JAN	1950	239	29.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.

1 JAN	0930	115	29.	1 JAN	1955	240	29.	2 JAN	0620	365	0.	2 JAN	1645	490	0.		
1 JAN	0935	116	30.	1 JAN	2000	241	29.	2 JAN	0625	366	0.	2 JAN	1650	491	0.		
1 JAN	0940	117	30.	1 JAN	2005	242	28.	2 JAN	0630	367	0.	2 JAN	1655	492	0.		
1 JAN	0945	118	31.	1 JAN	2010	243	28.	2 JAN	0635	368	0.	2 JAN	1700	493	0.		
1 JAN	0950	119	32.	1 JAN	2015	244	27.	2 JAN	0640	369	0.	2 JAN	1705	494	0.		
1 JAN	0955	120	34.	1 JAN	2020	245	26.	2 JAN	0645	370	0.	2 JAN	1710	495	0.		
1 JAN	1000	121	35.	1 JAN	2025	246	25.	2 JAN	0650	371	0.	2 JAN	1715	496	0.		
1 JAN	1005	122	37.	1 JAN	2030	247	24.	2 JAN	0655	372	0.	2 JAN	1720	497	0.		
1 JAN	1010	123	40.	1 JAN	2035	248	23.	2 JAN	0700	373	0.	2 JAN	1725	498	0.		
1 JAN	1015	124	43.	1 JAN	2040	249	22.	2 JAN	0705	374	0.	2 JAN	1730	499	0.		
1 JAN	1020	125	46.	1 JAN	2045	250	21.	2 JAN	0710	375	0.	2 JAN	1735	500	0.		

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
6543.	12.42	1231.	325.	188.	188.
		(INCHES) 2.014	2.128	2.131	2.131
		(AC-FT) 610.	645.	646.	646.

CUMULATIVE AREA = 5.68 SQ MI

HYDROGRAPH AT C003L
TRANSPOSITION AREA 5.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	45.	1	JAN	2050	251	19.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	50.	1	JAN	2055	252	19.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	56.	1	JAN	2100	253	18.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	64.	1	JAN	2105	254	18.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	73.	1	JAN	2110	255	17.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	83.	1	JAN	2115	256	17.	2	JAN	0740	381	0.
1	JAN	0030	7	2.	1	JAN	1055	132	96.	1	JAN	2120	257	17.	2	JAN	0745	382	0.
1	JAN	0035	8	2.	1	JAN	1100	133	111.	1	JAN	2125	258	16.	2	JAN	0750	383	0.
1	JAN	0040	9	3.	1	JAN	1105	134	130.	1	JAN	2130	259	16.	2	JAN	0755	384	0.
1	JAN	0045	10	3.	1	JAN	1110	135	150.	1	JAN	2135	260	16.	2	JAN	0800	385	0.
1	JAN	0050	11	3.	1	JAN	1115	136	173.	1	JAN	2140	261	16.	2	JAN	0805	386	0.
1	JAN	0055	12	4.	1	JAN	1120	137	200.	1	JAN	2145	262	15.	2	JAN	0810	387	0.
1	JAN	0100	13	4.	1	JAN	1125	138	232.	1	JAN	2150	263	15.	2	JAN	0815	388	0.
1	JAN	0105	14	5.	1	JAN	1130	139	266.	1	JAN	2155	264	15.	2	JAN	0820	389	0.
1	JAN	0110	15	6.	1	JAN	1135	140	323.	1	JAN	2200	265	15.	2	JAN	0825	390	0.
1	JAN	0115	16	6.	1	JAN	1140	141	444.	1	JAN	2205	266	15.	2	JAN	0830	391	0.
1	JAN	0120	17	7.	1	JAN	1145	142	650.	1	JAN	2210	267	15.	2	JAN	0835	392	0.
1	JAN	0125	18	7.	1	JAN	1150	143	994.	1	JAN	2215	268	15.	2	JAN	0840	393	0.
1	JAN	0130	19	7.	1	JAN	1155	144	1513.	1	JAN	2220	269	14.	2	JAN	0845	394	0.
1	JAN	0135	20	8.	1	JAN	1200	145	2308.	1	JAN	2225	270	14.	2	JAN	0850	395	0.
1	JAN	0140	21	8.	1	JAN	1205	146	3400.	1	JAN	2230	271	14.	2	JAN	0855	396	0.
1	JAN	0145	22	8.	1	JAN	1210	147	4552.	1	JAN	2235	272	14.	2	JAN	0900	397	0.
1	JAN	0150	23	9.	1	JAN	1215	148	5542.	1	JAN	2240	273	14.	2	JAN	0905	398	0.
1	JAN	0155	24	9.	1	JAN	1220	149	6122.	1	JAN	2245	274	14.	2	JAN	0910	399	0.
1	JAN	0200	25	9.	1	JAN	1225	150	6348.	1	JAN	2250	275	14.	2	JAN	0915	400	0.
1	JAN	0205	26	10.	1	JAN	1230	151	6123.	1	JAN	2255	276	14.	2	JAN	0920	401	0.
1	JAN	0210	27	10.	1	JAN	1235	152	5626.	1	JAN	2300	277	14.	2	JAN	0925	402	0.
1	JAN	0215	28	10.	1	JAN	1240	153	5044.	1	JAN	2305	278	14.	2	JAN	0930	403	0.
1	JAN	0220	29	10.	1	JAN	1245	154	4437.	1	JAN	2310	279	14.	2	JAN	0935	404	0.
1	JAN	0225	30	10.	1	JAN	1250	155	3886.	1	JAN	2315	280	14.	2	JAN	0940	405	0.
1	JAN	0230	31	11.	1	JAN	1255	156	3361.	1	JAN	2320	281	14.	2	JAN	0945	406	0.
1	JAN	0235	32	11.	1	JAN	1300	157	2898.	1	JAN	2325	282	14.	2	JAN	0950	407	0.
1	JAN	0240	33	11.	1	JAN	1305	158	2452.	1	JAN	2330	283	14.	2	JAN	0955	408	0.
1	JAN	0245	34	11.	1	JAN	1310	159	2096.	1	JAN	2335	284	14.	2	JAN	1000	409	0.
1	JAN	0250	35	11.	1	JAN	1315	160	1774.	1	JAN	2340	285	14.	2	JAN	1005	410	0.
1	JAN	0255	36	12.	1	JAN	1320	161	1538.	1	JAN	2345	286	14.	2	JAN	1010	411	0.
1	JAN	0300	37	12.	1	JAN	1325	162	1331.	1	JAN	2350	287	14.	2	JAN	1015	412	0.
1	JAN	0305	38	12.	1	JAN	1330	163	1159.	1	JAN	2355	288	13.	2	JAN	1020	413	0.
1	JAN	0310	39	12.	1	JAN	1335	164	1018.	2	JAN	0000	289	13.	2	JAN	1025	414	0.
1	JAN	0315	40	12.	1	JAN	1340	165	894.	2	JAN	0005	290	13.	2	JAN	1030	415	0.
1	JAN	0320	41	12.	1	JAN	1345	166	789.	2	JAN	0010	291	13.	2	JAN	1035	416	0.
1	JAN	0325	42	12.	1	JAN	1350	167	700.	2	JAN	0015	292	12.	2	JAN	1040	417	0.
1	JAN	0330	43	12.	1	JAN	1355	168	621.	2	JAN	0020	293	12.	2	JAN	1045	418	0.
1	JAN	0335	44	12.	1	JAN	1400	169	550.	2	JAN	0025	294	11.	2	JAN	1050	419	0.
1	JAN	0340	45	13.	1	JAN	1405	170	490.	2	JAN	0030	295	10.	2	JAN	1055	420	0.
1	JAN	0345	46	13.	1	JAN	1410	171	439.	2	JAN	0035	296	10.	2	JAN	1100	421	0.
1	JAN	0350	47	13.	1	JAN	1415	172	395.	2	JAN	0040	297	9.	2	JAN	1105	422	0.
1	JAN	0355	48	13.	1	JAN	1420	173	356.	2	JAN	0045	298	9.	2	JAN	1110	423	0.
1	JAN	0400	49	13.	1	JAN	1425	174	323.	2	JAN	0050	299	8.	2	JAN	1115	424	0.
1	JAN	0405	50	13.	1	JAN	1430	175	296.	2	JAN	0055	300	8.	2	JAN	1120	425	0.
1	JAN	0410	51	14.	1	JAN	1435	176	272.	2	JAN	0100	301	7.	2	JAN	1125	426	0.
1	JAN	0415	52	14.	1	JAN	1440	177	250.	2	JAN	0105	302	7.	2	JAN	1130	427	0.
1	JAN	0420	53	14.	1	JAN	1445	178	229.	2	JAN	0110	303	6.	2	JAN	1135	428	0.
1	JAN	0425	54	14.	1	JAN	1450	179	210.	2	JAN	0115	304	6.	2	JAN	1140	429	0.
1	JAN	0430	55	15.	1	JAN	1455	180	193.	2	JAN	0120	305	6.	2	JAN	1145	430	0.
1	JAN	0435	56	15.	1	JAN	1500	181	178.	2	JAN	0125	306	5.	2	JAN	1150	431	0.
1	JAN	0440	57	15.	1	JAN	1505	182	165.	2	JAN	0130	307	5.	2	JAN	1155	432	0.
1	JAN	0445	58	15.	1	JAN	1510	183	154.	2	JAN	0135	308	5.	2	JAN	1200	433	0.
1	JAN	0450	59	15.	1	JAN	1515	184	143.	2	JAN	0140	309	4.	2	JAN	1205	434	0.
1	JAN	0455	60	16.	1	JAN	1520	185	134.	2	JAN	0145	310	4.	2	JAN	1210	435	0.
1	JAN	0500	61	16.	1	JAN	1525	186	126.	2	JAN	0150	311	4.	2	JAN	1215	436	0.
1	JAN	0505	62	16.	1	JAN	1530	187	118.	2	JAN	0155	312	4.	2	JAN	1220	437	0.
1	JAN	0510	63	16.	1	JAN	1535	188	112.	2	JAN	0200	313	3.	2	JAN	1225	438	0.
1	JAN	0515	64	16.	1	JAN	1540	189	105.	2	JAN	0205	314	3.	2	JAN	1230	439	0.
1	JAN	0520	65	16.	1	JAN	1545	190	100.	2	JAN	0210	315	3.	2	JAN	1235	440	0.
1	JAN	0525	66	16.	1	JAN	1550	191	95.	2	JAN	0215	316	3.	2	JAN	1240	441	0.
1	JAN	0530	67	16.	1	JAN	1555	192	90.	2	JAN	0220	317	3.	2	JAN	1245	442	0.
1	JAN	0535	68	17.	1	JAN	1600	193	86.	2	JAN	0225	318	3.	2	JAN	1250	443	0.
1	JAN	0540	69	17.	1	JAN	1605	194	82.	2	JAN	0230	319	2.	2	JAN	1255	444	0.
1	JAN	0545	70	17.	1	JAN	1610	195	79.	2	JAN	0235	320	2.	2	JAN	1300	445	0.
1	JAN	0550	71	17.	1	JAN	1615	196	77.	2	JAN	0240	321	2.	2	JAN	1305	446	0.
1	JAN	0555	72	17.	1	JAN	1620	197	74.	2	JAN	0245	322	2.	2	JAN	1310	447	0.

1 JAN 0600	73	17.	*	1 JAN 1625	198	72.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	17.	*	1 JAN 1630	199	71.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	17.	*	1 JAN 1635	200	69.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	17.	*	1 JAN 1640	201	68.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.
1 JAN 0620	77	18.	*	1 JAN 1645	202	67.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	18.	*	1 JAN 1650	203	65.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	18.	*	1 JAN 1655	204	64.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	18.	*	1 JAN 1700	205	62.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	19.	*	1 JAN 1705	206	60.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	19.	*	1 JAN 1710	207	58.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	19.	*	1 JAN 1715	208	56.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	19.	*	1 JAN 1720	209	54.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	20.	*	1 JAN 1725	210	53.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	20.	*	1 JAN 1730	211	51.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	20.	*	1 JAN 1735	212	50.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	20.	*	1 JAN 1740	213	49.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	20.	*	1 JAN 1745	214	48.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	20.	*	1 JAN 1750	215	48.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	21.	*	1 JAN 1755	216	47.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	21.	*	1 JAN 1800	217	46.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	21.	*	1 JAN 1805	218	45.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	21.	*	1 JAN 1810	219	44.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	21.	*	1 JAN 1815	220	42.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	21.	*	1 JAN 1820	221	41.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	21.	*	1 JAN 1825	222	39.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	21.	*	1 JAN 1830	223	38.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	21.	*	1 JAN 1835	224	36.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	22.	*	1 JAN 1840	225	35.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	22.	*	1 JAN 1845	226	34.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	22.	*	1 JAN 1850	227	33.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	23.	*	1 JAN 1855	228	32.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	23.	*	1 JAN 1900	229	31.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	24.	*	1 JAN 1905	230	30.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	24.	*	1 JAN 1910	231	29.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	25.	*	1 JAN 1915	232	29.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	25.	*	1 JAN 1920	233	29.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	26.	*	1 JAN 1925	234	28.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	26.	*	1 JAN 1930	235	28.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	26.	*	1 JAN 1935	236	28.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	27.	*	1 JAN 1940	237	27.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	27.	*	1 JAN 1945	238	27.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	28.	*	1 JAN 1950	239	27.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	28.	*	1 JAN 1955	240	27.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	29.	*	1 JAN 2000	241	26.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	29.	*	1 JAN 2005	242	26.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	30.	*	1 JAN 2010	243	25.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	31.	*	1 JAN 2015	244	25.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	32.	*	1 JAN 2020	245	24.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	33.	*	1 JAN 2025	246	23.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	35.	*	1 JAN 2030	247	22.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	37.	*	1 JAN 2035	248	21.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	39.	*	1 JAN 2040	249	21.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	42.	*	1 JAN 2045	250	20.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.
			*				*				*			

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6348.	12.42		1190.	314.	181.	181.
		(INCHES)	1.947	2.055	2.058	2.058
		(AC-FT)	590.	623.	624.	624.

CUMULATIVE AREA = 5.68 SQ MI

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HYDROGRAPH AT C003L
TRANSPOSITION AREA 10.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	40.	*	1 JAN 2050	251	18.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	43.	*	1 JAN 2055	252	17.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	48.	*	1 JAN 2100	253	17.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	55.	*	1 JAN 2105	254	17.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	63.	*	1 JAN 2110	255	16.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	73.	*	1 JAN 2115	256	16.	*	2 JAN 0740	381	0.
1 JAN 0030	7	2.	*	1 JAN 1055	132	85.	*	1 JAN 2120	257	16.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	99.	*	1 JAN 2125	258	15.	*	2 JAN 0750	383	0.
1 JAN 0040	9	3.	*	1 JAN 1105	134	116.	*	1 JAN 2130	259	15.	*	2 JAN 0755	384	0.
1 JAN 0045	10	3.	*	1 JAN 1110	135	135.	*	1 JAN 2135	260	15.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	157.	*	1 JAN 2140	261	15.	*	2 JAN 0805	386	0.
1 JAN 0055	12	4.	*	1 JAN 1120	137	181.	*	1 JAN 2145	262	15.	*	2 JAN 0810	387	0.
1 JAN 0100	13	4.	*	1 JAN 1125	138	210.	*	1 JAN 2150	263	15.	*	2 JAN 0815	388	0.
1 JAN 0105	14	5.	*	1 JAN 1130	139	243.	*	1 JAN 2155	264	14.	*	2 JAN 0820	389	0.
1 JAN 0110	15	5.	*	1 JAN 1135	140	298.	*	1 JAN 2200	265	14.	*	2 JAN 0825	390	0.
1 JAN 0115	16	6.	*	1 JAN 1140	141	411.	*	1 JAN 2205	266	14.	*	2 JAN 0830	391	0.
1 JAN 0120	17	6.	*	1 JAN 1145	142	609.	*	1 JAN 2210	267	14.	*	2 JAN 0835	392	0.
1 JAN 0125	18	7.	*	1 JAN 1150	143	939.	*	1 JAN 2215	268	14.	*	2 JAN 0840	393	0.
1 JAN 0130	19	7.	*	1 JAN 1155	144	1440.	*	1 JAN 2220	269	14.	*	2 JAN 0845	394	0.
1 JAN 0135	20	8.	*	1 JAN 1200	145	2204.	*	1 JAN 2225	270	14.	*	2 JAN 0850	395	0.
1 JAN 0140	21	8.	*	1 JAN 1205	146	3249.	*	1 JAN 2230	271	14.	*	2 JAN 0855	396	0.
1 JAN 0145	22	8.	*	1 JAN 1210	147	4343.	*	1 JAN 2235	272	14.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	5308.	*	1 JAN 2240	273	14.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	5883.	*	1 JAN 2245	274	14.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	6108.	*	1 JAN 2250	275	14.	*	2 JAN 0915	400	0.
1 JAN 0205	26	9.	*	1 JAN 1230	151	5902.	*	1 JAN 2255	276	14.	*	2 JAN 0920	401	0.
1 JAN 0210	27	9.	*	1 JAN 1235	152	5433.	*	1 JAN 2300	277	13.	*	2 JAN 0925	402	0.
1 JAN 0215	28	10.	*	1 JAN 1240	153	4867.	*	1 JAN 2305	278	13.	*	2 JAN 0930	403	0.
1 JAN 0220	29	10.	*	1 JAN 1245	154	4285.	*	1 JAN 2310	279	13.	*	2 JAN 0935	404	0.
1 JAN 0225	30	10.	*	1 JAN 1250	155	3746.	*	1 JAN 2315	280	13.	*	2 JAN 0940	405	0.

1 JAN	0230	31	10.	*	1 JAN	1255	156	3244.	*	1 JAN	2320	281	13.	*	2 JAN	0945	406	0.
1 JAN	0235	32	11.	*	1 JAN	1300	157	2789.	*	1 JAN	2325	282	13.	*	2 JAN	0950	407	0.
1 JAN	0240	33	11.	*	1 JAN	1305	158	2365.	*	1 JAN	2330	283	13.	*	2 JAN	0955	408	0.
1 JAN	0245	34	11.	*	1 JAN	1310	159	2015.	*	1 JAN	2335	284	13.	*	2 JAN	1000	409	0.
1 JAN	0250	35	11.	*	1 JAN	1315	160	1709.	*	1 JAN	2340	285	13.	*	2 JAN	1005	410	0.
1 JAN	0255	36	11.	*	1 JAN	1320	161	1483.	*	1 JAN	2345	286	13.	*	2 JAN	1010	411	0.
1 JAN	0300	37	11.	*	1 JAN	1325	162	1281.	*	1 JAN	2350	287	13.	*	2 JAN	1015	412	0.
1 JAN	0305	38	11.	*	1 JAN	1330	163	1119.	*	1 JAN	2355	288	13.	*	2 JAN	1020	413	0.
1 JAN	0310	39	12.	*	1 JAN	1335	164	980.	*	2 JAN	0000	289	13.	*	2 JAN	1025	414	0.
1 JAN	0315	40	12.	*	1 JAN	1340	165	859.	*	2 JAN	0005	290	13.	*	2 JAN	1030	415	0.
1 JAN	0320	41	12.	*	1 JAN	1345	166	758.	*	2 JAN	0010	291	12.	*	2 JAN	1035	416	0.
1 JAN	0325	42	12.	*	1 JAN	1350	167	672.	*	2 JAN	0015	292	12.	*	2 JAN	1040	417	0.
1 JAN	0330	43	12.	*	1 JAN	1355	168	594.	*	2 JAN	0020	293	11.	*	2 JAN	1045	418	0.
1 JAN	0335	44	12.	*	1 JAN	1400	169	526.	*	2 JAN	0025	294	11.	*	2 JAN	1050	419	0.
1 JAN	0340	45	12.	*	1 JAN	1405	170	469.	*	2 JAN	0030	295	10.	*	2 JAN	1055	420	0.
1 JAN	0345	46	12.	*	1 JAN	1410	171	419.	*	2 JAN	0035	296	10.	*	2 JAN	1100	421	0.
1 JAN	0350	47	12.	*	1 JAN	1415	172	376.	*	2 JAN	0040	297	9.	*	2 JAN	1105	422	0.
1 JAN	0355	48	13.	*	1 JAN	1420	173	338.	*	2 JAN	0045	298	8.	*	2 JAN	1110	423	0.
1 JAN	0400	49	13.	*	1 JAN	1425	174	307.	*	2 JAN	0050	299	8.	*	2 JAN	1115	424	0.
1 JAN	0405	50	13.	*	1 JAN	1430	175	281.	*	2 JAN	0055	300	7.	*	2 JAN	1120	425	0.
1 JAN	0410	51	13.	*	1 JAN	1435	176	257.	*	2 JAN	0100	301	7.	*	2 JAN	1125	426	0.
1 JAN	0415	52	13.	*	1 JAN	1440	177	236.	*	2 JAN	0105	302	6.	*	2 JAN	1130	427	0.
1 JAN	0420	53	14.	*	1 JAN	1445	178	215.	*	2 JAN	0110	303	6.	*	2 JAN	1135	428	0.
1 JAN	0425	54	14.	*	1 JAN	1450	179	197.	*	2 JAN	0115	304	6.	*	2 JAN	1140	429	0.
1 JAN	0430	55	14.	*	1 JAN	1455	180	181.	*	2 JAN	0120	305	5.	*	2 JAN	1145	430	0.
1 JAN	0435	56	14.	*	1 JAN	1500	181	168.	*	2 JAN	0125	306	5.	*	2 JAN	1150	431	0.
1 JAN	0440	57	15.	*	1 JAN	1505	182	155.	*	2 JAN	0130	307	5.	*	2 JAN	1155	432	0.
1 JAN	0445	58	15.	*	1 JAN	1510	183	144.	*	2 JAN	0135	308	5.	*	2 JAN	1200	433	0.
1 JAN	0450	59	15.	*	1 JAN	1515	184	134.	*	2 JAN	0140	309	4.	*	2 JAN	1205	434	0.
1 JAN	0455	60	15.	*	1 JAN	1520	185	125.	*	2 JAN	0145	310	4.	*	2 JAN	1210	435	0.
1 JAN	0500	61	15.	*	1 JAN	1525	186	117.	*	2 JAN	0150	311	4.	*	2 JAN	1215	436	0.
1 JAN	0505	62	15.	*	1 JAN	1530	187	110.	*	2 JAN	0155	312	4.	*	2 JAN	1220	437	0.
1 JAN	0510	63	15.	*	1 JAN	1535	188	104.	*	2 JAN	0200	313	3.	*	2 JAN	1225	438	0.
1 JAN	0515	64	16.	*	1 JAN	1540	189	98.	*	2 JAN	0205	314	3.	*	2 JAN	1230	439	0.
1 JAN	0520	65	16.	*	1 JAN	1545	190	93.	*	2 JAN	0210	315	3.	*	2 JAN	1235	440	0.
1 JAN	0525	66	16.	*	1 JAN	1550	191	88.	*	2 JAN	0215	316	3.	*	2 JAN	1240	441	0.
1 JAN	0530	67	16.	*	1 JAN	1555	192	84.	*	2 JAN	0220	317	3.	*	2 JAN	1245	442	0.
1 JAN	0535	68	16.	*	1 JAN	1600	193	80.	*	2 JAN	0225	318	2.	*	2 JAN	1250	443	0.
1 JAN	0540	69	16.	*	1 JAN	1605	194	77.	*	2 JAN	0230	319	2.	*	2 JAN	1255	444	0.
1 JAN	0545	70	16.	*	1 JAN	1610	195	74.	*	2 JAN	0235	320	2.	*	2 JAN	1300	445	0.
1 JAN	0550	71	16.	*	1 JAN	1615	196	71.	*	2 JAN	0240	321	2.	*	2 JAN	1305	446	0.
1 JAN	0555	72	16.	*	1 JAN	1620	197	69.	*	2 JAN	0245	322	2.	*	2 JAN	1310	447	0.
1 JAN	0600	73	16.	*	1 JAN	1625	198	67.	*	2 JAN	0250	323	2.	*	2 JAN	1315	448	0.
1 JAN	0605	74	17.	*	1 JAN	1630	199	66.	*	2 JAN	0255	324	2.	*	2 JAN	1320	449	0.
1 JAN	0610	75	17.	*	1 JAN	1635	200	65.	*	2 JAN	0300	325	2.	*	2 JAN	1325	450	0.
1 JAN	0615	76	17.	*	1 JAN	1640	201	63.	*	2 JAN	0305	326	2.	*	2 JAN	1330	451	0.
1 JAN	0620	77	17.	*	1 JAN	1645	202	62.	*	2 JAN	0310	327	1.	*	2 JAN	1335	452	0.
1 JAN	0625	78	17.	*	1 JAN	1650	203	61.	*	2 JAN	0315	328	1.	*	2 JAN	1340	453	0.
1 JAN	0630	79	18.	*	1 JAN	1655	204	59.	*	2 JAN	0320	329	1.	*	2 JAN	1345	454	0.
1 JAN	0635	80	18.	*	1 JAN	1700	205	57.	*	2 JAN	0325	330	1.	*	2 JAN	1350	455	0.
1 JAN	0640	81	18.	*	1 JAN	1705	206	55.	*	2 JAN	0330	331	1.	*	2 JAN	1355	456	0.
1 JAN	0645	82	18.	*	1 JAN	1710	207	54.	*	2 JAN	0335	332	1.	*	2 JAN	1400	457	0.
1 JAN	0650	83	19.	*	1 JAN	1715	208	52.	*	2 JAN	0340	333	1.	*	2 JAN	1405	458	0.
1 JAN	0655	84	19.	*	1 JAN	1720	209	50.	*	2 JAN	0345	334	1.	*	2 JAN	1410	459	0.
1 JAN	0700	85	19.	*	1 JAN	1725	210	49.	*	2 JAN	0350	335	1.	*	2 JAN	1415	460	0.
1 JAN	0705	86	19.	*	1 JAN	1730	211	47.	*	2 JAN	0355	336	1.	*	2 JAN	1420	461	0.
1 JAN	0710	87	19.	*	1 JAN	1735	212	46.	*	2 JAN	0400	337	1.	*	2 JAN	1425	462	0.
1 JAN	0715	88	20.	*	1 JAN	1740	213	45.	*	2 JAN	0405	338	1.	*	2 JAN	1430	463	0.
1 JAN	0720	89	20.	*	1 JAN	1745	214	45.	*	2 JAN	0410	339	1.	*	2 JAN	1435	464	0.
1 JAN	0725	90	20.	*	1 JAN	1750	215	44.	*	2 JAN	0415	340	1.	*	2 JAN	1440	465	0.
1 JAN	0730	91	20.	*	1 JAN	1755	216	43.	*	2 JAN	0420	341	1.	*	2 JAN	1445	466	0.
1 JAN	0735	92	20.	*	1 JAN	1800	217	43.	*	2 JAN	0425	342	1.	*	2 JAN	1450	467	0.
1 JAN	0740	93	20.	*	1 JAN	1805	218	42.	*	2 JAN	0430	343	1.	*	2 JAN	1455	468	0.
1 JAN	0745	94	20.	*	1 JAN	1810	219	40.	*	2 JAN	0435	344	0.	*	2 JAN	1500	469	0.
1 JAN	0750	95	20.	*	1 JAN	1815	220	39.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.
1 JAN	0755	96	20.	*	1 JAN	1820	221	38.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.
1 JAN	0800	97	21.	*	1 JAN	1825	222	36.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.
1 JAN	0805	98	21.	*	1 JAN	1830	223	34.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.
1 JAN	0810	99	21.	*	1 JAN	1835	224	33.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.
1 JAN	0815	100	21.	*	1 JAN	1840	225	32.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.
1 JAN	0820	101	21.	*	1 JAN	1845	226	31.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.
1 JAN	0825	102	22.	*	1 JAN	1850	227	29.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.
1 JAN	0830	103	22.	*	1 JAN	1855	228	29.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.
1 JAN	0835	104	23.	*	1 JAN	1900	229	28.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.
1 JAN	0840	105	23.	*	1 JAN	1905	230	27.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.
1 JAN	0845	106	23.	*	1 JAN	1910	231	26.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.
1 JAN	0850	107	24.	*	1 JAN	1915	232	26.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	24.	*	1 JAN	1920	233	26.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	25.	*	1 JAN	1925	234	25.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	25.	*	1 JAN	1930	235	25.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	26.	*	1 JAN	1935	236	25.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	26.	*	1 JAN	1940	237	24.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	27.	*	1 JAN	1945	238	24.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	27.	*	1 JAN	1950	239	24.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	28.	*	1 JAN	1955	240	24.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	28.	*	1 JAN	2000	241	24.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	29.	*	1 JAN	2005	242	23.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	29.	*	1 JAN	2010	243	23.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	30.	*	1 JAN	2015	244	22.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	30.	*	1 JAN	2020	245	21.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	31.	*	1 JAN	2025	246	21.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	32.	*	1 JAN	2030	247	20.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	33.	*	1 JAN	2035	248	19.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	35.	*	1 JAN	2040	249	19.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	37.	*	1 JAN	2045	250	18.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6108.	12.42		1140.	301.	174.	174.
		(INCHES)	1.866	1.968	1.971	1.971
		(AC-FT)	566.	596.	597.	597.

CUMULATIVE AREA = 5.68 SQ MI

HYDROGRAPH AT C003L
TRANSPOSITION AREA 30.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	35.	1	JAN	2050	251	16.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	37.	1	JAN	2055	252	16.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	41.	1	JAN	2100	253	15.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	46.	1	JAN	2105	254	15.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	52.	1	JAN	2110	255	15.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	61.	1	JAN	2115	256	15.	2	JAN	0740	381	0.
1	JAN	0030	7	2.	1	JAN	1055	132	71.	1	JAN	2120	257	15.	2	JAN	0745	382	0.
1	JAN	0035	8	2.	1	JAN	1100	133	84.	1	JAN	2125	258	14.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	98.	1	JAN	2130	259	14.	2	JAN	0755	384	0.
1	JAN	0045	10	3.	1	JAN	1110	135	114.	1	JAN	2135	260	14.	2	JAN	0800	385	0.
1	JAN	0050	11	3.	1	JAN	1115	136	134.	1	JAN	2140	261	14.	2	JAN	0805	386	0.
1	JAN	0055	12	4.	1	JAN	1120	137	156.	1	JAN	2145	262	14.	2	JAN	0810	387	0.
1	JAN	0100	13	4.	1	JAN	1125	138	180.	1	JAN	2150	263	14.	2	JAN	0815	388	0.
1	JAN	0105	14	5.	1	JAN	1130	139	209.	1	JAN	2155	264	14.	2	JAN	0820	389	0.
1	JAN	0110	15	5.	1	JAN	1135	140	261.	1	JAN	2200	265	14.	2	JAN	0825	390	0.
1	JAN	0115	16	6.	1	JAN	1140	141	367.	1	JAN	2205	266	14.	2	JAN	0830	391	0.
1	JAN	0120	17	6.	1	JAN	1145	142	549.	1	JAN	2210	267	13.	2	JAN	0835	392	0.
1	JAN	0125	18	6.	1	JAN	1150	143	858.	1	JAN	2215	268	13.	2	JAN	0840	393	0.
1	JAN	0130	19	7.	1	JAN	1155	144	1334.	1	JAN	2220	269	13.	2	JAN	0845	394	0.
1	JAN	0135	20	7.	1	JAN	1200	145	2054.	1	JAN	2225	270	13.	2	JAN	0850	395	0.
1	JAN	0140	21	8.	1	JAN	1205	146	3034.	1	JAN	2230	271	13.	2	JAN	0855	396	0.
1	JAN	0145	22	8.	1	JAN	1210	147	4062.	1	JAN	2235	272	13.	2	JAN	0900	397	0.
1	JAN	0150	23	8.	1	JAN	1215	148	4976.	1	JAN	2240	273	13.	2	JAN	0905	398	0.
1	JAN	0155	24	8.	1	JAN	1220	149	5540.	1	JAN	2245	274	13.	2	JAN	0910	399	0.
1	JAN	0200	25	9.	1	JAN	1225	150	5765.	1	JAN	2250	275	13.	2	JAN	0915	400	0.
1	JAN	0205	26	9.	1	JAN	1230	151	5589.	1	JAN	2255	276	13.	2	JAN	0920	401	0.
1	JAN	0210	27	9.	1	JAN	1235	152	5155.	1	JAN	2300	277	13.	2	JAN	0925	402	0.
1	JAN	0215	28	9.	1	JAN	1240	153	4612.	1	JAN	2305	278	13.	2	JAN	0930	403	0.
1	JAN	0220	29	9.	1	JAN	1245	154	4069.	1	JAN	2310	279	13.	2	JAN	0935	404	0.
1	JAN	0225	30	10.	1	JAN	1250	155	3548.	1	JAN	2315	280	13.	2	JAN	0940	405	0.
1	JAN	0230	31	10.	1	JAN	1255	156	3075.	1	JAN	2320	281	13.	2	JAN	0945	406	0.
1	JAN	0235	32	10.	1	JAN	1300	157	2629.	1	JAN	2325	282	13.	2	JAN	0950	407	0.
1	JAN	0240	33	10.	1	JAN	1305	158	2239.	1	JAN	2330	283	13.	2	JAN	0955	408	0.
1	JAN	0245	34	10.	1	JAN	1310	159	1902.	1	JAN	2335	284	13.	2	JAN	1000	409	0.
1	JAN	0250	35	11.	1	JAN	1315	160	1626.	1	JAN	2340	285	13.	2	JAN	1005	410	0.
1	JAN	0255	36	11.	1	JAN	1320	161	1407.	1	JAN	2345	286	13.	2	JAN	1010	411	0.
1	JAN	0300	37	11.	1	JAN	1325	162	1212.	1	JAN	2350	287	13.	2	JAN	1015	412	0.
1	JAN	0305	38	11.	1	JAN	1330	163	1063.	1	JAN	2355	288	13.	2	JAN	1020	413	0.
1	JAN	0310	39	11.	1	JAN	1335	164	928.	2	JAN	0000	289	12.	2	JAN	1025	414	0.
1	JAN	0315	40	11.	1	JAN	1340	165	811.	2	JAN	0005	290	12.	2	JAN	1030	415	0.
1	JAN	0320	41	11.	1	JAN	1345	166	716.	2	JAN	0010	291	12.	2	JAN	1035	416	0.
1	JAN	0325	42	11.	1	JAN	1350	167	632.	2	JAN	0015	292	11.	2	JAN	1040	417	0.
1	JAN	0330	43	12.	1	JAN	1355	168	557.	2	JAN	0020	293	11.	2	JAN	1045	418	0.
1	JAN	0335	44	12.	1	JAN	1400	169	493.	2	JAN	0025	294	10.	2	JAN	1050	419	0.
1	JAN	0340	45	12.	1	JAN	1405	170	438.	2	JAN	0030	295	10.	2	JAN	1055	420	0.
1	JAN	0345	46	12.	1	JAN	1410	171	390.	2	JAN	0035	296	9.	2	JAN	1100	421	0.
1	JAN	0350	47	12.	1	JAN	1415	172	348.	2	JAN	0040	297	9.	2	JAN	1105	422	0.
1	JAN	0355	48	12.	1	JAN	1420	173	314.	2	JAN	0045	298	8.	2	JAN	1110	423	0.
1	JAN	0400	49	12.	1	JAN	1425	174	285.	2	JAN	0050	299	8.	2	JAN	1115	424	0.
1	JAN	0405	50	12.	1	JAN	1430	175	260.	2	JAN	0055	300	7.	2	JAN	1120	425	0.
1	JAN	0410	51	13.	1	JAN	1435	176	237.	2	JAN	0100	301	7.	2	JAN	1125	426	0.
1	JAN	0415	52	13.	1	JAN	1440	177	215.	2	JAN	0105	302	6.	2	JAN	1130	427	0.
1	JAN	0420	53	13.	1	JAN	1445	178	196.	2	JAN	0110	303	6.	2	JAN	1135	428	0.
1	JAN	0425	54	13.	1	JAN	1450	179	180.	2	JAN	0115	304	5.	2	JAN	1140	429	0.
1	JAN	0430	55	14.	1	JAN	1455	180	166.	2	JAN	0120	305	5.	2	JAN	1145	430	0.
1	JAN	0435	56	14.	1	JAN	1500	181	153.	2	JAN	0125	306	5.	2	JAN	1150	431	0.
1	JAN	0440	57	14.	1	JAN	1505	182	141.	2	JAN	0130	307	5.	2	JAN	1155	432	0.
1	JAN	0445	58	14.	1	JAN	1510	183	130.	2	JAN	0135	308	4.	2	JAN	1200	433	0.
1	JAN	0450	59	14.	1	JAN	1515	184	121.	2	JAN	0140	309	4.	2	JAN	1205	434	0.
1	JAN	0455	60	14.	1	JAN	1520	185	113.	2	JAN	0145	310	4.	2	JAN	1210	435	0.
1	JAN	0500	61	15.	1	JAN	1525	186	106.	2	JAN	0150	311	4.	2	JAN	1215	436	0.
1	JAN	0505	62	15.	1	JAN	1530	187	99.	2	JAN	0155	312	3.	2	JAN	1220	437	0.
1	JAN	0510	63	15.	1	JAN	1535	188	94.	2	JAN	0200	313	3.	2	JAN	1225	438	0.
1	JAN	0515	64	15.	1	JAN	1540	189	89.	2	JAN	0205	314	3.	2	JAN	1230	439	0.
1	JAN	0520	65	15.	1	JAN	1545	190	84.	2	JAN	0210	315	3.	2	JAN	1235	440	0.
1	JAN	0525	66	15.	1	JAN	1550	191	79.	2	JAN	0215	316	3.	2	JAN	1240	441	0.
1	JAN	0530	67	15.	1	JAN	1555	192	75.	2	JAN	0220	317	2.	2	JAN	1245	442	0.
1	JAN	0535	68	15.	1	JAN	1600	193	72.	2	JAN	0225	318	2.	2	JAN	1250	443	0.
1	JAN	0540	69	15.	1	JAN	1605	194	69.	2	JAN	0230	319	2.	2	JAN	1255	444	0.
1	JAN	0545	70	15.	1	JAN	1610	195	66.	2	JAN	0235	320	2.	2	JAN	1300	445	0.
1	JAN	0550	71	16.	1	JAN	1615	196	64.	2	JAN	0240	321	2.	2	JAN	1305	446	0.
1	JAN	0555	72	16.	1	JAN	1620	197	62.	2	JAN	0245	322	2.	2	JAN	1310	447	0.
1	JAN	0600	73	16.	1	JAN	1625	198	60.	2	JAN	0250	323	2.	2	JAN	1315	448	0.
1	JAN	0605	74	16.	1	JAN	1630	199	59.	2	JAN	0255	324	2.	2	JAN	1320	449	0.
1	JAN	0610	75	16.	1	JAN	1635	200	58.	2	JAN	0300	325	2.	2	JAN	1325	450	0.
1	JAN	0615	76	16.	1	JAN	1640	201	57.	2	JAN	0305	326	1.	2	JAN	1330	451	0.
1	JAN	0620	77	16.	1	JAN	1645	202	56.	2	JAN	0310	327	1.	2	JAN	1335	452	0.
1	JAN	0625	78	17.	1	JAN	1650	203	54.	2	JAN	0315	328	1.	2	JAN	1340	453	0.
1	JAN	0630	79	17.	1	JAN	1655	204	53.	2	JAN	0320	329	1.	2	JAN	1345	454	0.
1	JAN	0635	80	17.	1	JAN	1700	205	51.	2	JAN	0325	330	1.	2	JAN	1350	455	0.
1	JAN	0640	81	17.	1	JAN	1705	206	49.	2	JAN	0330	331	1.	2	JAN	1355	456	0.
1	JAN	0645	82	18.	1	JAN	1710	207	47.	2	JAN	0335	332	1.	2	JAN	1400	457	0.
1	JAN	0650	83	18.	1	JAN	1715	208	46.	2	JAN	0340	333	1.	2	JAN	1405	458	0.
1	JAN	0655	84	18.	1	JAN	1720	209	44.	2	JAN	0345	334	1.	2	JAN	1410	459	0.
1	JAN	0700	85	18.	1	JAN	1725	210	43.	2	JAN	0350	335	1.	2	JAN	1415	460	0.
1	JAN	0705	86	18.	1	JAN	1730	211	42.	2	JAN	0355	336	1.	2	JAN	1420	461	0.
1	JAN	0710	87	19.	1	JAN	1735	212	41.	2	JAN	0400	337	1.	2	JAN	1425	462	0.
1	JAN	0715	88	19.	1	JAN	1740	213	40.	2	JAN	0405	338	1.	2	JAN	1430	463	0.
1	JAN	0720	89	19.	1	JAN	1745	214	40.	2	JAN	0410	339	1.	2	JAN	1435	464	0.
1	JAN	0725	90	19.	1	JAN	1750	215	39.	2	JAN	0415	340	1.	2	JAN	1440	465	0.
1	JAN	0730	91	19.	1	JAN	1755	216	38.	2	JAN	0420	341	1.	2	JAN	1445	466	0.
1	JAN	0735	92	19.	1	JAN	1800	217	38.	2	JAN	0425	342	1.	2	JAN	1450	467	0.
1	JAN	0740	93	19.	1	JAN	1805	218	37.	2	JAN	0430	343	1.	2	JAN	1455	468	0.
1	JAN	0745	94	19.	1	JAN	1810	219	36.	2	JAN	0435	344	0.	2	JAN	1500	469	0.

1 JAN 0750	95	20.	*	1 JAN 1815	220	34.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	20.	*	1 JAN 1820	221	33.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	20.	*	1 JAN 1825	222	32.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	20.	*	1 JAN 1830	223	30.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	20.	*	1 JAN 1835	224	29.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	20.	*	1 JAN 1840	225	28.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	20.	*	1 JAN 1845	226	26.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	21.	*	1 JAN 1850	227	25.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	21.	*	1 JAN 1855	228	24.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	22.	*	1 JAN 1900	229	24.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	22.	*	1 JAN 1905	230	23.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	22.	*	1 JAN 1910	231	22.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	23.	*	1 JAN 1915	232	22.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	23.	*	1 JAN 1920	233	21.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	24.	*	1 JAN 1925	234	21.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	24.	*	1 JAN 1930	235	21.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	25.	*	1 JAN 1935	236	20.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	25.	*	1 JAN 1940	237	20.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	26.	*	1 JAN 1945	238	20.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	26.	*	1 JAN 1950	239	20.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	26.	*	1 JAN 1955	240	20.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	27.	*	1 JAN 2000	241	20.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	27.	*	1 JAN 2005	242	19.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	28.	*	1 JAN 2010	243	19.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	28.	*	1 JAN 2015	244	19.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	29.	*	1 JAN 2020	245	18.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	29.	*	1 JAN 2025	246	18.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	30.	*	1 JAN 2030	247	17.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	31.	*	1 JAN 2035	248	17.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	32.	*	1 JAN 2040	249	16.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	33.	*	1 JAN 2045	250	16.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5765.	12.42		1071.	282.	163.	163.
		(INCHES)	1.753	1.846	1.849	1.849
		(AC-FT)	531.	559.	560.	560.

CUMULATIVE AREA = 5.68 SQ MI

HYDROGRAPH AT C003L
TRANSPOSITION AREA 60.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	32.	*	1 JAN 2050	251	14.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	33.	*	1 JAN 2055	252	14.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	36.	*	1 JAN 2100	253	14.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	39.	*	1 JAN 2105	254	14.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	44.	*	1 JAN 2110	255	14.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	50.	*	1 JAN 2115	256	14.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	59.	*	1 JAN 2120	257	14.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	70.	*	1 JAN 2125	258	14.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	83.	*	1 JAN 2130	259	13.	*	2 JAN 0755	384	0.
1 JAN 0045	10	3.	*	1 JAN 1110	135	97.	*	1 JAN 2135	260	13.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	114.	*	1 JAN 2140	261	13.	*	2 JAN 0805	386	0.
1 JAN 0055	12	3.	*	1 JAN 1120	137	134.	*	1 JAN 2145	262	13.	*	2 JAN 0810	387	0.
1 JAN 0100	13	4.	*	1 JAN 1125	138	156.	*	1 JAN 2150	263	13.	*	2 JAN 0815	388	0.
1 JAN 0105	14	4.	*	1 JAN 1130	139	181.	*	1 JAN 2155	264	13.	*	2 JAN 0820	389	0.
1 JAN 0110	15	5.	*	1 JAN 1135	140	226.	*	1 JAN 2200	265	13.	*	2 JAN 0825	390	0.
1 JAN 0115	16	5.	*	1 JAN 1140	141	324.	*	1 JAN 2205	266	13.	*	2 JAN 0830	391	0.
1 JAN 0120	17	6.	*	1 JAN 1145	142	490.	*	1 JAN 2210	267	13.	*	2 JAN 0835	392	0.
1 JAN 0125	18	6.	*	1 JAN 1150	143	779.	*	1 JAN 2215	268	13.	*	2 JAN 0840	393	0.
1 JAN 0130	19	7.	*	1 JAN 1155	144	1228.	*	1 JAN 2220	269	13.	*	2 JAN 0845	394	0.
1 JAN 0135	20	7.	*	1 JAN 1200	145	1902.	*	1 JAN 2225	270	13.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	2817.	*	1 JAN 2230	271	13.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	3780.	*	1 JAN 2235	272	13.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	4650.	*	1 JAN 2240	273	12.	*	2 JAN 0905	398	0.
1 JAN 0155	24	8.	*	1 JAN 1220	149	5189.	*	1 JAN 2245	274	12.	*	2 JAN 0910	399	0.
1 JAN 0200	25	8.	*	1 JAN 1225	150	5429.	*	1 JAN 2250	275	12.	*	2 JAN 0915	400	0.
1 JAN 0205	26	8.	*	1 JAN 1230	151	5276.	*	1 JAN 2255	276	12.	*	2 JAN 0920	401	0.
1 JAN 0210	27	9.	*	1 JAN 1235	152	4868.	*	1 JAN 2300	277	12.	*	2 JAN 0925	402	0.
1 JAN 0215	28	9.	*	1 JAN 1240	153	4360.	*	1 JAN 2305	278	12.	*	2 JAN 0930	403	0.
1 JAN 0220	29	9.	*	1 JAN 1245	154	3850.	*	1 JAN 2310	279	12.	*	2 JAN 0935	404	0.
1 JAN 0225	30	9.	*	1 JAN 1250	155	3352.	*	1 JAN 2315	280	12.	*	2 JAN 0940	405	0.
1 JAN 0230	31	9.	*	1 JAN 1255	156	2906.	*	1 JAN 2320	281	12.	*	2 JAN 0945	406	0.
1 JAN 0235	32	10.	*	1 JAN 1300	157	2470.	*	1 JAN 2325	282	12.	*	2 JAN 0950	407	0.
1 JAN 0240	33	10.	*	1 JAN 1305	158	2114.	*	1 JAN 2330	283	12.	*	2 JAN 0955	408	0.
1 JAN 0245	34	10.	*	1 JAN 1310	159	1791.	*	1 JAN 2335	284	12.	*	2 JAN 1000	409	0.
1 JAN 0250	35	10.	*	1 JAN 1315	160	1544.	*	1 JAN 2340	285	12.	*	2 JAN 1005	410	0.
1 JAN 0255	36	10.	*	1 JAN 1320	161	1331.	*	1 JAN 2345	286	12.	*	2 JAN 1010	411	0.
1 JAN 0300	37	10.	*	1 JAN 1325	162	1151.	*	1 JAN 2350	287	12.	*	2 JAN 1015	412	0.
1 JAN 0305	38	10.	*	1 JAN 1330	163	1006.	*	1 JAN 2355	288	12.	*	2 JAN 1020	413	0.
1 JAN 0310	39	11.	*	1 JAN 1335	164	876.	*	2 JAN 0000	289	12.	*	2 JAN 1025	414	0.
1 JAN 0315	40	11.	*	1 JAN 1340	165	765.	*	2 JAN 0005	290	12.	*	2 JAN 1030	415	0.
1 JAN 0320	41	11.	*	1 JAN 1345	166	673.	*	2 JAN 0010	291	11.	*	2 JAN 1035	416	0.
1 JAN 0325	42	11.	*	1 JAN 1350	167	592.	*	2 JAN 0015	292	11.	*	2 JAN 1040	417	0.
1 JAN 0330	43	11.	*	1 JAN 1355	168	521.	*	2 JAN 0020	293	10.	*	2 JAN 1045	418	0.
1 JAN 0335	44	11.	*	1 JAN 1400	169	461.	*	2 JAN 0025	294	10.	*	2 JAN 1050	419	0.
1 JAN 0340	45	11.	*	1 JAN 1405	170	407.	*	2 JAN 0030	295	9.	*	2 JAN 1055	420	0.
1 JAN 0345	46	11.	*	1 JAN 1410	171	361.	*	2 JAN 0035	296	9.	*	2 JAN 1100	421	0.
1 JAN 0350	47	11.	*	1 JAN 1415	172	321.	*	2 JAN 0040	297	8.	*	2 JAN 1105	422	0.
1 JAN 0355	48	11.	*	1 JAN 1420	173	291.	*	2 JAN 0045	298	8.	*	2 JAN 1110	423	0.
1 JAN 0400	49	12.	*	1 JAN 1425	174	263.	*	2 JAN 0050	299	7.	*	2 JAN 1115	424	0.
1 JAN 0405	50	12.	*	1 JAN 1430	175	238.	*	2 JAN 0055	300	7.	*	2 JAN 1120	425	0.
1 JAN 0410	51	12.	*	1 JAN 1435	176	215.	*	2 JAN 0100	301	6.	*	2 JAN 1125	426	0.
1 JAN 0415	52	12.	*	1 JAN 1440	177	195.	*	2 JAN 0105	302	6.	*	2 JAN 1130	427	0.

1 JAN 0420	53	12.	*	1 JAN 1445	178	178.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	13.	*	1 JAN 1450	179	164.	*	2 JAN 0115	304	5.	*	2 JAN 1140	429	0.
1 JAN 0430	55	13.	*	1 JAN 1455	180	150.	*	2 JAN 0120	305	5.	*	2 JAN 1145	430	0.
1 JAN 0435	56	13.	*	1 JAN 1500	181	138.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	13.	*	1 JAN 1505	182	127.	*	2 JAN 0130	307	4.	*	2 JAN 1155	432	0.
1 JAN 0445	58	13.	*	1 JAN 1510	183	117.	*	2 JAN 0135	308	4.	*	2 JAN 1200	433	0.
1 JAN 0450	59	14.	*	1 JAN 1515	184	109.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.
1 JAN 0455	60	14.	*	1 JAN 1520	185	101.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	14.	*	1 JAN 1525	186	95.	*	2 JAN 0150	311	3.	*	2 JAN 1215	436	0.
1 JAN 0505	62	14.	*	1 JAN 1530	187	89.	*	2 JAN 0155	312	3.	*	2 JAN 1220	437	0.
1 JAN 0510	63	14.	*	1 JAN 1535	188	84.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.
1 JAN 0515	64	14.	*	1 JAN 1540	189	79.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	14.	*	1 JAN 1545	190	75.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	14.	*	1 JAN 1550	191	71.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	15.	*	1 JAN 1555	192	67.	*	2 JAN 0220	317	2.	*	2 JAN 1245	442	0.
1 JAN 0535	68	15.	*	1 JAN 1600	193	64.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.
1 JAN 0540	69	15.	*	1 JAN 1605	194	61.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	15.	*	1 JAN 1610	195	59.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	15.	*	1 JAN 1615	196	57.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	15.	*	1 JAN 1620	197	55.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	15.	*	1 JAN 1625	198	53.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	15.	*	1 JAN 1630	199	52.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	15.	*	1 JAN 1635	200	51.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	15.	*	1 JAN 1640	201	50.	*	2 JAN 0305	326	1.	*	2 JAN 1330	451	0.
1 JAN 0620	77	16.	*	1 JAN 1645	202	49.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	16.	*	1 JAN 1650	203	48.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	16.	*	1 JAN 1655	204	46.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	16.	*	1 JAN 1700	205	45.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	17.	*	1 JAN 1705	206	43.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	17.	*	1 JAN 1710	207	42.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	17.	*	1 JAN 1715	208	40.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	17.	*	1 JAN 1720	209	39.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	17.	*	1 JAN 1725	210	38.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	18.	*	1 JAN 1730	211	37.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	18.	*	1 JAN 1735	212	36.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	18.	*	1 JAN 1740	213	35.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	18.	*	1 JAN 1745	214	35.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	18.	*	1 JAN 1750	215	34.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	18.	*	1 JAN 1755	216	33.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	18.	*	1 JAN 1800	217	33.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	18.	*	1 JAN 1805	218	32.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.
1 JAN 0745	94	19.	*	1 JAN 1810	219	31.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	19.	*	1 JAN 1815	220	30.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	19.	*	1 JAN 1820	221	29.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	19.	*	1 JAN 1825	222	28.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	19.	*	1 JAN 1830	223	26.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	19.	*	1 JAN 1835	224	25.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	19.	*	1 JAN 1840	225	25.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	19.	*	1 JAN 1845	226	24.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	20.	*	1 JAN 1850	227	23.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	20.	*	1 JAN 1855	228	22.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	21.	*	1 JAN 1900	229	21.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	21.	*	1 JAN 1905	230	21.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	21.	*	1 JAN 1910	231	20.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	22.	*	1 JAN 1915	232	20.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	22.	*	1 JAN 1920	233	20.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	23.	*	1 JAN 1925	234	19.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	23.	*	1 JAN 1930	235	19.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	23.	*	1 JAN 1935	236	19.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	24.	*	1 JAN 1940	237	18.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	24.	*	1 JAN 1945	238	18.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	25.	*	1 JAN 1950	239	18.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	25.	*	1 JAN 1955	240	18.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	26.	*	1 JAN 2000	241	17.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	26.	*	1 JAN 2005	242	17.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	27.	*	1 JAN 2010	243	17.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	27.	*	1 JAN 2015	244	16.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	28.	*	1 JAN 2020	245	16.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	28.	*	1 JAN 2025	246	16.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	29.	*	1 JAN 2030	247	15.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	29.	*	1 JAN 2035	248	15.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	30.	*	1 JAN 2040	249	15.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	31.	*	1 JAN 2045	250	15.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5429.	12.42		1002.	264.	152.	152.
		(INCHES)	1.640	1.726	1.729	1.729
		(AC-FT)	497.	523.	524.	524.

CUMULATIVE AREA = 5.68 SQ MI

HYDROGRAPH AT C003L
TRANSPOSITION AREA 90.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	31.	1 JAN 2050	251	14.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	32.	1 JAN 2055	252	14.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	34.	1 JAN 2100	253	14.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	37.	1 JAN 2105	254	14.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	42.	1 JAN 2110	255	14.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	47.	1 JAN 2115	256	14.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	55.	1 JAN 2120	257	13.	2 JAN 0745	382	0.
1 JAN 0035	8	2.	1 JAN 1100	133	66.	1 JAN 2125	258	13.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	78.	1 JAN 2130	259	13.	2 JAN 0755	384	0.
1 JAN 0045	10	3.	1 JAN 1110	135	92.	1 JAN 2135	260	13.	2 JAN 0800	385	0.

1 JAN 0050	11	3. *	1 JAN 1115	136	107. *	1 JAN 2140	261	13. *	2 JAN 0805	386	0.
1 JAN 0055	12	3. *	1 JAN 1120	137	126. *	1 JAN 2145	262	13. *	2 JAN 0810	387	0.
1 JAN 0100	13	4. *	1 JAN 1125	138	147. *	1 JAN 2150	263	13. *	2 JAN 0815	388	0.
1 JAN 0105	14	4. *	1 JAN 1130	139	171. *	1 JAN 2155	264	13. *	2 JAN 0820	389	0.
1 JAN 0110	15	5. *	1 JAN 1135	140	214. *	1 JAN 2200	265	13. *	2 JAN 0825	390	0.
1 JAN 0115	16	5. *	1 JAN 1140	141	309. *	1 JAN 2205	266	13. *	2 JAN 0830	391	0.
1 JAN 0120	17	6. *	1 JAN 1145	142	469. *	1 JAN 2210	267	13. *	2 JAN 0835	392	0.
1 JAN 0125	18	6. *	1 JAN 1150	143	752. *	1 JAN 2215	268	13. *	2 JAN 0840	393	0.
1 JAN 0130	19	6. *	1 JAN 1155	144	1191. *	1 JAN 2220	269	12. *	2 JAN 0845	394	0.
1 JAN 0135	20	7. *	1 JAN 1200	145	1850. *	1 JAN 2225	270	12. *	2 JAN 0850	395	0.
1 JAN 0140	21	7. *	1 JAN 1205	146	2738. *	1 JAN 2230	271	12. *	2 JAN 0855	396	0.
1 JAN 0145	22	7. *	1 JAN 1210	147	3678. *	1 JAN 2235	272	12. *	2 JAN 0900	397	0.
1 JAN 0150	23	8. *	1 JAN 1215	148	4533. *	1 JAN 2240	273	12. *	2 JAN 0905	398	0.
1 JAN 0155	24	8. *	1 JAN 1220	149	5065. *	1 JAN 2245	274	12. *	2 JAN 0910	399	0.
1 JAN 0200	25	8. *	1 JAN 1225	150	5309. *	1 JAN 2250	275	12. *	2 JAN 0915	400	0.
1 JAN 0205	26	8. *	1 JAN 1230	151	5166. *	1 JAN 2255	276	12. *	2 JAN 0920	401	0.
1 JAN 0210	27	9. *	1 JAN 1235	152	4768. *	1 JAN 2300	277	12. *	2 JAN 0925	402	0.
1 JAN 0215	28	9. *	1 JAN 1240	153	4274. *	1 JAN 2305	278	12. *	2 JAN 0930	403	0.
1 JAN 0220	29	9. *	1 JAN 1245	154	3772. *	1 JAN 2310	279	12. *	2 JAN 0935	404	0.
1 JAN 0225	30	9. *	1 JAN 1250	155	3287. *	1 JAN 2315	280	12. *	2 JAN 0940	405	0.
1 JAN 0230	31	9. *	1 JAN 1255	156	2846. *	1 JAN 2320	281	12. *	2 JAN 0945	406	0.
1 JAN 0235	32	9. *	1 JAN 1300	157	2420. *	1 JAN 2325	282	12. *	2 JAN 0950	407	0.
1 JAN 0240	33	10. *	1 JAN 1305	158	2068. *	1 JAN 2330	283	12. *	2 JAN 0955	408	0.
1 JAN 0245	34	10. *	1 JAN 1310	159	1750. *	1 JAN 2335	284	12. *	2 JAN 1000	409	0.
1 JAN 0250	35	10. *	1 JAN 1315	160	1514. *	1 JAN 2340	285	12. *	2 JAN 1005	410	0.
1 JAN 0255	36	10. *	1 JAN 1320	161	1304. *	1 JAN 2345	286	12. *	2 JAN 1010	411	0.
1 JAN 0300	37	10. *	1 JAN 1325	162	1129. *	1 JAN 2350	287	12. *	2 JAN 1015	412	0.
1 JAN 0305	38	10. *	1 JAN 1330	163	986. *	1 JAN 2355	288	12. *	2 JAN 1020	413	0.
1 JAN 0310	39	10. *	1 JAN 1335	164	857. *	2 JAN 0000	289	12. *	2 JAN 1025	414	0.
1 JAN 0315	40	11. *	1 JAN 1340	165	748. *	2 JAN 0005	290	11. *	2 JAN 1030	415	0.
1 JAN 0320	41	11. *	1 JAN 1345	166	657. *	2 JAN 0010	291	11. *	2 JAN 1035	416	0.
1 JAN 0325	42	11. *	1 JAN 1350	167	577. *	2 JAN 0015	292	11. *	2 JAN 1040	417	0.
1 JAN 0330	43	11. *	1 JAN 1355	168	508. *	2 JAN 0020	293	10. *	2 JAN 1045	418	0.
1 JAN 0335	44	11. *	1 JAN 1400	169	449. *	2 JAN 0025	294	10. *	2 JAN 1050	419	0.
1 JAN 0340	45	11. *	1 JAN 1405	170	396. *	2 JAN 0030	295	9. *	2 JAN 1055	420	0.
1 JAN 0345	46	11. *	1 JAN 1410	171	350. *	2 JAN 0035	296	9. *	2 JAN 1100	421	0.
1 JAN 0350	47	11. *	1 JAN 1415	172	313. *	2 JAN 0040	297	8. *	2 JAN 1105	422	0.
1 JAN 0355	48	11. *	1 JAN 1420	173	282. *	2 JAN 0045	298	8. *	2 JAN 1110	423	0.
1 JAN 0400	49	11. *	1 JAN 1425	174	255. *	2 JAN 0050	299	7. *	2 JAN 1115	424	0.
1 JAN 0405	50	12. *	1 JAN 1430	175	230. *	2 JAN 0055	300	7. *	2 JAN 1120	425	0.
1 JAN 0410	51	12. *	1 JAN 1435	176	208. *	2 JAN 0100	301	6. *	2 JAN 1125	426	0.
1 JAN 0415	52	12. *	1 JAN 1440	177	188. *	2 JAN 0105	302	6. *	2 JAN 1130	427	0.
1 JAN 0420	53	12. *	1 JAN 1445	178	172. *	2 JAN 0110	303	5. *	2 JAN 1135	428	0.
1 JAN 0425	54	13. *	1 JAN 1450	179	158. *	2 JAN 0115	304	5. *	2 JAN 1140	429	0.
1 JAN 0430	55	13. *	1 JAN 1455	180	145. *	2 JAN 0120	305	5. *	2 JAN 1145	430	0.
1 JAN 0435	56	13. *	1 JAN 1500	181	133. *	2 JAN 0125	306	5. *	2 JAN 1150	431	0.
1 JAN 0440	57	13. *	1 JAN 1505	182	122. *	2 JAN 0130	307	4. *	2 JAN 1155	432	0.
1 JAN 0445	58	13. *	1 JAN 1510	183	113. *	2 JAN 0135	308	4. *	2 JAN 1200	433	0.
1 JAN 0450	59	13. *	1 JAN 1515	184	104. *	2 JAN 0140	309	4. *	2 JAN 1205	434	0.
1 JAN 0455	60	14. *	1 JAN 1520	185	97. *	2 JAN 0145	310	4. *	2 JAN 1210	435	0.
1 JAN 0500	61	14. *	1 JAN 1525	186	91. *	2 JAN 0150	311	3. *	2 JAN 1215	436	0.
1 JAN 0505	62	14. *	1 JAN 1530	187	86. *	2 JAN 0155	312	3. *	2 JAN 1220	437	0.
1 JAN 0510	63	14. *	1 JAN 1535	188	81. *	2 JAN 0200	313	3. *	2 JAN 1225	438	0.
1 JAN 0515	64	14. *	1 JAN 1540	189	76. *	2 JAN 0205	314	3. *	2 JAN 1230	439	0.
1 JAN 0520	65	14. *	1 JAN 1545	190	72. *	2 JAN 0210	315	3. *	2 JAN 1235	440	0.
1 JAN 0525	66	14. *	1 JAN 1550	191	68. *	2 JAN 0215	316	3. *	2 JAN 1240	441	0.
1 JAN 0530	67	14. *	1 JAN 1555	192	64. *	2 JAN 0220	317	2. *	2 JAN 1245	442	0.
1 JAN 0535	68	14. *	1 JAN 1600	193	61. *	2 JAN 0225	318	2. *	2 JAN 1250	443	0.
1 JAN 0540	69	14. *	1 JAN 1605	194	58. *	2 JAN 0230	319	2. *	2 JAN 1255	444	0.
1 JAN 0545	70	14. *	1 JAN 1610	195	56. *	2 JAN 0235	320	2. *	2 JAN 1300	445	0.
1 JAN 0550	71	15. *	1 JAN 1615	196	54. *	2 JAN 0240	321	2. *	2 JAN 1305	446	0.
1 JAN 0555	72	15. *	1 JAN 1620	197	52. *	2 JAN 0245	322	2. *	2 JAN 1310	447	0.
1 JAN 0600	73	15. *	1 JAN 1625	198	51. *	2 JAN 0250	323	2. *	2 JAN 1315	448	0.
1 JAN 0605	74	15. *	1 JAN 1630	199	50. *	2 JAN 0255	324	2. *	2 JAN 1320	449	0.
1 JAN 0610	75	15. *	1 JAN 1635	200	49. *	2 JAN 0300	325	2. *	2 JAN 1325	450	0.
1 JAN 0615	76	15. *	1 JAN 1640	201	48. *	2 JAN 0305	326	1. *	2 JAN 1330	451	0.
1 JAN 0620	77	15. *	1 JAN 1645	202	47. *	2 JAN 0310	327	1. *	2 JAN 1335	452	0.
1 JAN 0625	78	16. *	1 JAN 1650	203	45. *	2 JAN 0315	328	1. *	2 JAN 1340	453	0.
1 JAN 0630	79	16. *	1 JAN 1655	204	44. *	2 JAN 0320	329	1. *	2 JAN 1345	454	0.
1 JAN 0635	80	16. *	1 JAN 1700	205	43. *	2 JAN 0325	330	1. *	2 JAN 1350	455	0.
1 JAN 0640	81	16. *	1 JAN 1705	206	41. *	2 JAN 0330	331	1. *	2 JAN 1355	456	0.
1 JAN 0645	82	16. *	1 JAN 1710	207	40. *	2 JAN 0335	332	1. *	2 JAN 1400	457	0.
1 JAN 0650	83	17. *	1 JAN 1715	208	39. *	2 JAN 0340	333	1. *	2 JAN 1405	458	0.
1 JAN 0655	84	17. *	1 JAN 1720	209	37. *	2 JAN 0345	334	1. *	2 JAN 1410	459	0.
1 JAN 0700	85	17. *	1 JAN 1725	210	36. *	2 JAN 0350	335	1. *	2 JAN 1415	460	0.
1 JAN 0705	86	17. *	1 JAN 1730	211	35. *	2 JAN 0355	336	1. *	2 JAN 1420	461	0.
1 JAN 0710	87	17. *	1 JAN 1735	212	34. *	2 JAN 0400	337	1. *	2 JAN 1425	462	0.
1 JAN 0715	88	18. *	1 JAN 1740	213	33. *	2 JAN 0405	338	1. *	2 JAN 1430	463	0.
1 JAN 0720	89	18. *	1 JAN 1745	214	33. *	2 JAN 0410	339	1. *	2 JAN 1435	464	0.
1 JAN 0725	90	18. *	1 JAN 1750	215	32. *	2 JAN 0415	340	1. *	2 JAN 1440	465	0.
1 JAN 0730	91	18. *	1 JAN 1755	216	31. *	2 JAN 0420	341	1. *	2 JAN 1445	466	0.
1 JAN 0735	92	18. *	1 JAN 1800	217	31. *	2 JAN 0425	342	1. *	2 JAN 1450	467	0.
1 JAN 0740	93	18. *	1 JAN 1805	218	30. *	2 JAN 0430	343	0. *	2 JAN 1455	468	0.
1 JAN 0745	94	18. *	1 JAN 1810	219	29. *	2 JAN 0435	344	0. *	2 JAN 1500	469	0.
1 JAN 0750	95	18. *	1 JAN 1815	220	28. *	2 JAN 0440	345	0. *	2 JAN 1505	470	0.
1 JAN 0755	96	18. *	1 JAN 1820	221	27. *	2 JAN 0445	346	0. *	2 JAN 1510	471	0.
1 JAN 0800	97	18. *	1 JAN 1825	222	26. *	2 JAN 0450	347	0. *	2 JAN 1515	472	0.
1 JAN 0805	98	19. *	1 JAN 1830	223	25. *	2 JAN 0455	348	0. *	2 JAN 1520	473	0.
1 JAN 0810	99	19. *	1 JAN 1835	224	24. *	2 JAN 0500	349	0. *	2 JAN 1525	474	0.
1 JAN 0815	100	19. *	1 JAN 1840	225	23. *	2 JAN 0505	350	0. *	2 JAN 1530	475	0.
1 JAN 0820	101	19. *	1 JAN 1845	226	23. *	2 JAN 0510	351	0. *	2 JAN 1535	476	0.
1 JAN 0825	102	19. *	1 JAN 1850	227	22. *	2 JAN 0515	352	0. *	2 JAN 1540	477	0.
1 JAN 0830	103	20. *	1 JAN 1855	228	21. *	2 JAN 0520	353	0. *	2 JAN 1545	478	0.
1 JAN 0835	104	20. *	1 JAN 1900	229	21. *	2 JAN 0525	354	0. *	2 JAN 1550	479	0.
1 JAN 0840	105	21. *	1 JAN 1905	230	20. *	2 JAN 0530	355	0. *	2 JAN 1555	480	0.
1 JAN 0845	106	21. *	1 JAN 1910	231	20. *	2 JAN 0535	356	0. *	2 JAN 1600	481	0.
1 JAN 0850	107	22. *	1 JAN 1915	232	19. *	2 JAN 0540	357	0. *	2 JAN 1605	482	0.
1 JAN 0855	108	22. *	1 JAN 1920	233	19. *	2 JAN 0545	358	0. *	2 JAN 1610	483	0.
1 JAN 0900	109	22. *	1 JAN 1925	234	19. *	2 JAN 0550	359	0. *	2 JAN 1615	484	0.
1 JAN 0905	110	23. *	1 JAN 1930	235	18. *	2 JAN 0555	360	0. *	2 JAN 1620	485	0.
1 JAN 0910	111	23. *	1 JAN 1935	236	18. *	2 JAN 0600	361	0. *	2 JAN 1625	486	0.
1 JAN 0915	112	23. *	1 JAN 1940	237	18. *	2 JAN 0605	362	0. *	2 JAN 1630	487	0.
1 JAN 0920	113	24. *	1 JAN 1945	238	18. *	2 JAN 0610	363	0. *	2 JAN 1635	488	0.
1 JAN 0925	114	24. *	1 JAN 1950	239	17. *	2 JAN 0615	364	0. *	2 JAN 1640	489	0.
1 JAN 0930	115	25. *	1 JAN 1955	240	17. *	2 JAN 0620	365	0. *	2 JAN 1645	490	0.
1 JAN 0935	116	25. *	1 JAN 2000	241	17. *	2 JAN 0625	366	0. *	2 JAN 1650	491	0.

1 JAN 0940	117	26.	*	1 JAN 2005	242	17.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	26.	*	1 JAN 2010	243	16.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	27.	*	1 JAN 2015	244	16.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	27.	*	1 JAN 2020	245	16.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	28.	*	1 JAN 2025	246	15.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	28.	*	1 JAN 2030	247	15.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	29.	*	1 JAN 2035	248	15.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	29.	*	1 JAN 2040	249	15.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	30.	*	1 JAN 2045	250	14.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 5309.	12.42	978.	257.	149.	149.
		(INCHES) 1.600	1.684	1.687	1.687
		(AC-FT) 485.	510.	511.	511.

CUMULATIVE AREA = 5.68 SQ MI

INTERPOLATED HYDROGRAPH AT C003L

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	44.	*	1 JAN 2050	251	19.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	49.	*	1 JAN 2055	252	18.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	55.	*	1 JAN 2100	253	18.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	62.	*	1 JAN 2105	254	17.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	71.	*	1 JAN 2110	255	17.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	82.	*	1 JAN 2115	256	17.	*	2 JAN 0740	381	0.
1 JAN 0030	7	2.	*	1 JAN 1055	132	94.	*	1 JAN 2120	257	16.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	109.	*	1 JAN 2125	258	16.	*	2 JAN 0750	383	0.
1 JAN 0040	9	3.	*	1 JAN 1105	134	127.	*	1 JAN 2130	259	16.	*	2 JAN 0755	384	0.
1 JAN 0045	10	3.	*	1 JAN 1110	135	147.	*	1 JAN 2135	260	16.	*	2 JAN 0800	385	0.
1 JAN 0050	11	3.	*	1 JAN 1115	136	170.	*	1 JAN 2140	261	15.	*	2 JAN 0805	386	0.
1 JAN 0055	12	4.	*	1 JAN 1120	137	196.	*	1 JAN 2145	262	15.	*	2 JAN 0810	387	0.
1 JAN 0100	13	4.	*	1 JAN 1125	138	228.	*	1 JAN 2150	263	15.	*	2 JAN 0815	388	0.
1 JAN 0105	14	5.	*	1 JAN 1130	139	262.	*	1 JAN 2155	264	15.	*	2 JAN 0820	389	0.
1 JAN 0110	15	6.	*	1 JAN 1135	140	318.	*	1 JAN 2200	265	15.	*	2 JAN 0825	390	0.
1 JAN 0115	16	6.	*	1 JAN 1140	141	438.	*	1 JAN 2205	266	15.	*	2 JAN 0830	391	0.
1 JAN 0120	17	7.	*	1 JAN 1145	142	642.	*	1 JAN 2210	267	15.	*	2 JAN 0835	392	0.
1 JAN 0125	18	7.	*	1 JAN 1150	143	984.	*	1 JAN 2215	268	14.	*	2 JAN 0840	393	0.
1 JAN 0130	19	7.	*	1 JAN 1155	144	1500.	*	1 JAN 2220	269	14.	*	2 JAN 0845	394	0.
1 JAN 0135	20	8.	*	1 JAN 1200	145	2289.	*	1 JAN 2225	270	14.	*	2 JAN 0850	395	0.
1 JAN 0140	21	8.	*	1 JAN 1205	146	3372.	*	1 JAN 2230	271	14.	*	2 JAN 0855	396	0.
1 JAN 0145	22	8.	*	1 JAN 1210	147	4514.	*	1 JAN 2235	272	14.	*	2 JAN 0900	397	0.
1 JAN 0150	23	9.	*	1 JAN 1215	148	5499.	*	1 JAN 2240	273	14.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	6078.	*	1 JAN 2245	274	14.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	6303.	*	1 JAN 2250	275	14.	*	2 JAN 0915	400	0.
1 JAN 0205	26	9.	*	1 JAN 1230	151	6082.	*	1 JAN 2255	276	14.	*	2 JAN 0920	401	0.
1 JAN 0210	27	10.	*	1 JAN 1235	152	5590.	*	1 JAN 2300	277	14.	*	2 JAN 0925	402	0.
1 JAN 0215	28	10.	*	1 JAN 1240	153	5012.	*	1 JAN 2305	278	14.	*	2 JAN 0930	403	0.
1 JAN 0220	29	10.	*	1 JAN 1245	154	4409.	*	1 JAN 2310	279	14.	*	2 JAN 0935	404	0.
1 JAN 0225	30	10.	*	1 JAN 1250	155	3860.	*	1 JAN 2315	280	14.	*	2 JAN 0940	405	0.
1 JAN 0230	31	11.	*	1 JAN 1255	156	3339.	*	1 JAN 2320	281	14.	*	2 JAN 0945	406	0.
1 JAN 0235	32	11.	*	1 JAN 1300	157	2878.	*	1 JAN 2325	282	14.	*	2 JAN 0950	407	0.
1 JAN 0240	33	11.	*	1 JAN 1305	158	2436.	*	1 JAN 2330	283	14.	*	2 JAN 0955	408	0.
1 JAN 0245	34	11.	*	1 JAN 1310	159	2081.	*	1 JAN 2335	284	14.	*	2 JAN 1000	409	0.
1 JAN 0250	35	11.	*	1 JAN 1315	160	1762.	*	1 JAN 2340	285	14.	*	2 JAN 1005	410	0.
1 JAN 0255	36	11.	*	1 JAN 1320	161	1528.	*	1 JAN 2345	286	14.	*	2 JAN 1010	411	0.
1 JAN 0300	37	12.	*	1 JAN 1325	162	1322.	*	1 JAN 2350	287	14.	*	2 JAN 1015	412	0.
1 JAN 0305	38	12.	*	1 JAN 1330	163	1152.	*	1 JAN 2355	288	13.	*	2 JAN 1020	413	0.
1 JAN 0310	39	12.	*	1 JAN 1335	164	1011.	*	2 JAN 0000	289	13.	*	2 JAN 1025	414	0.
1 JAN 0315	40	12.	*	1 JAN 1340	165	887.	*	2 JAN 0005	290	13.	*	2 JAN 1030	415	0.
1 JAN 0320	41	12.	*	1 JAN 1345	166	783.	*	2 JAN 0010	291	13.	*	2 JAN 1035	416	0.
1 JAN 0325	42	12.	*	1 JAN 1350	167	695.	*	2 JAN 0015	292	12.	*	2 JAN 1040	417	0.
1 JAN 0330	43	12.	*	1 JAN 1355	168	616.	*	2 JAN 0020	293	12.	*	2 JAN 1045	418	0.
1 JAN 0335	44	12.	*	1 JAN 1400	169	546.	*	2 JAN 0025	294	11.	*	2 JAN 1050	419	0.
1 JAN 0340	45	13.	*	1 JAN 1405	170	486.	*	2 JAN 0030	295	10.	*	2 JAN 1055	420	0.
1 JAN 0345	46	13.	*	1 JAN 1410	171	436.	*	2 JAN 0035	296	10.	*	2 JAN 1100	421	0.
1 JAN 0350	47	13.	*	1 JAN 1415	172	391.	*	2 JAN 0040	297	9.	*	2 JAN 1105	422	0.
1 JAN 0355	48	13.	*	1 JAN 1420	173	353.	*	2 JAN 0045	298	9.	*	2 JAN 1110	423	0.
1 JAN 0400	49	13.	*	1 JAN 1425	174	320.	*	2 JAN 0050	299	8.	*	2 JAN 1115	424	0.
1 JAN 0405	50	13.	*	1 JAN 1430	175	294.	*	2 JAN 0055	300	8.	*	2 JAN 1120	425	0.
1 JAN 0410	51	14.	*	1 JAN 1435	176	269.	*	2 JAN 0100	301	7.	*	2 JAN 1125	426	0.
1 JAN 0415	52	14.	*	1 JAN 1440	177	247.	*	2 JAN 0105	302	7.	*	2 JAN 1130	427	0.
1 JAN 0420	53	14.	*	1 JAN 1445	178	227.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	14.	*	1 JAN 1450	179	208.	*	2 JAN 0115	304	6.	*	2 JAN 1140	429	0.
1 JAN 0430	55	14.	*	1 JAN 1455	180	191.	*	2 JAN 0120	305	6.	*	2 JAN 1145	430	0.
1 JAN 0435	56	15.	*	1 JAN 1500	181	176.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	15.	*	1 JAN 1505	182	164.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.
1 JAN 0445	58	15.	*	1 JAN 1510	183	152.	*	2 JAN 0135	308	5.	*	2 JAN 1200	433	0.
1 JAN 0450	59	15.	*	1 JAN 1515	184	142.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.
1 JAN 0455	60	15.	*	1 JAN 1520	185	132.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	16.	*	1 JAN 1525	186	124.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.
1 JAN 0505	62	16.	*	1 JAN 1530	187	117.	*	2 JAN 0155	312	4.	*	2 JAN 1220	437	0.
1 JAN 0510	63	16.	*	1 JAN 1535	188	110.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.
1 JAN 0515	64	16.	*	1 JAN 1540	189	104.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	16.	*	1 JAN 1545	190	98.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	16.	*	1 JAN 1550	191	93.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	16.	*	1 JAN 1555	192	89.	*	2 JAN 0220	317	3.	*	2 JAN 1245	442	0.
1 JAN 0535	68	16.	*	1 JAN 1600	193	85.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.
1 JAN 0540	69	17.	*	1 JAN 1605	194	81.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	17.	*	1 JAN 1610	195	78.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	17.	*	1 JAN 1615	196	76.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	17.	*	1 JAN 1620	197	73.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	17.	*	1 JAN 1625	198	71.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	17.	*	1 JAN 1630	199	70.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	17.	*	1 JAN 1635	200	69.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.

1 JAN 0615	76	17.	*	1 JAN 1640	201	67.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.
1 JAN 0620	77	18.	*	1 JAN 1645	202	66.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	18.	*	1 JAN 1650	203	64.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	18.	*	1 JAN 1655	204	63.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	18.	*	1 JAN 1700	205	61.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	19.	*	1 JAN 1705	206	59.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	19.	*	1 JAN 1710	207	57.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	19.	*	1 JAN 1715	208	55.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	19.	*	1 JAN 1720	209	53.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	20.	*	1 JAN 1725	210	52.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	20.	*	1 JAN 1730	211	51.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	20.	*	1 JAN 1735	212	50.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	20.	*	1 JAN 1740	213	49.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	20.	*	1 JAN 1745	214	48.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	20.	*	1 JAN 1750	215	47.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	20.	*	1 JAN 1755	216	46.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	21.	*	1 JAN 1800	217	45.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	21.	*	1 JAN 1805	218	44.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	21.	*	1 JAN 1810	219	43.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	21.	*	1 JAN 1815	220	42.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	21.	*	1 JAN 1820	221	40.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	21.	*	1 JAN 1825	222	39.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	21.	*	1 JAN 1830	223	37.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	21.	*	1 JAN 1835	224	36.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	22.	*	1 JAN 1840	225	34.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	22.	*	1 JAN 1845	226	33.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	22.	*	1 JAN 1850	227	32.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	23.	*	1 JAN 1855	228	31.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	23.	*	1 JAN 1900	229	30.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	24.	*	1 JAN 1905	230	30.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	24.	*	1 JAN 1910	231	29.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	25.	*	1 JAN 1915	232	28.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	25.	*	1 JAN 1920	233	28.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	25.	*	1 JAN 1925	234	28.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	26.	*	1 JAN 1930	235	27.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	26.	*	1 JAN 1935	236	27.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	27.	*	1 JAN 1940	237	27.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	27.	*	1 JAN 1945	238	27.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	28.	*	1 JAN 1950	239	27.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	28.	*	1 JAN 1955	240	26.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	29.	*	1 JAN 2000	241	26.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	29.	*	1 JAN 2005	242	25.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	30.	*	1 JAN 2010	243	25.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	31.	*	1 JAN 2015	244	24.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	32.	*	1 JAN 2020	245	23.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	33.	*	1 JAN 2025	246	23.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	34.	*	1 JAN 2030	247	22.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	36.	*	1 JAN 2035	248	21.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	38.	*	1 JAN 2040	249	20.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	41.	*	1 JAN 2045	250	20.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6303.	12.42		1181.	312.	180.	180.
		(INCHES)	1.932	2.039	2.042	2.042
		(AC-FT)	585.	618.	619.	619.

CUMULATIVE AREA = 5.68 SQ MI

148 KK C003

149 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	500	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

151 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT C003
TRANSPOSITION AREA .0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	68.	*	1 JAN 2050	251	26.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	74.	*	1 JAN 2055	252	25.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	82.	*	1 JAN 2100	253	24.	*	2 JAN 0725	378	0.
1 JAN 0015	4	1.	*	1 JAN 1040	129	90.	*	1 JAN 2105	254	24.	*	2 JAN 0730	379	0.
1 JAN 0020	5	2.	*	1 JAN 1045	130	101.	*	1 JAN 2110	255	23.	*	2 JAN 0735	380	0.

1 JAN 0025	6	3.	*	1 JAN 1050	131	113.	*	1 JAN 2115	256	23.	*	2 JAN 0740	381	0.	
1 JAN 0030	7	4.	*	1 JAN 1055	132	128.	*	1 JAN 2120	257	23.	*	2 JAN 0745	382	0.	
1 JAN 0035	8	5.	*	1 JAN 1100	133	146.	*	1 JAN 2125	258	22.	*	2 JAN 0750	383	0.	
1 JAN 0040	9	6.	*	1 JAN 1105	134	167.	*	1 JAN 2130	259	22.	*	2 JAN 0755	384	0.	
1 JAN 0045	10	6.	*	1 JAN 1110	135	191.	*	1 JAN 2135	260	22.	*	2 JAN 0800	385	0.	
1 JAN 0050	11	7.	*	1 JAN 1115	136	217.	*	1 JAN 2140	261	21.	*	2 JAN 0805	386	0.	
1 JAN 0055	12	8.	*	1 JAN 1120	137	250.	*	1 JAN 2145	262	21.	*	2 JAN 0810	387	0.	
1 JAN 0100	13	9.	*	1 JAN 1125	138	286.	*	1 JAN 2150	263	21.	*	2 JAN 0815	388	0.	
1 JAN 0105	14	10.	*	1 JAN 1130	139	326.	*	1 JAN 2155	264	21.	*	2 JAN 0820	389	0.	
1 JAN 0110	15	10.	*	1 JAN 1135	140	414.	*	1 JAN 2200	265	20.	*	2 JAN 0825	390	0.	
1 JAN 0115	16	11.	*	1 JAN 1140	141	610.	*	1 JAN 2205	266	20.	*	2 JAN 0830	391	0.	
1 JAN 0120	17	12.	*	1 JAN 1145	142	958.	*	1 JAN 2210	267	20.	*	2 JAN 0835	392	0.	
1 JAN 0125	18	12.	*	1 JAN 1150	143	1561.	*	1 JAN 2215	268	20.	*	2 JAN 0840	393	0.	
1 JAN 0130	19	12.	*	1 JAN 1155	144	2450.	*	1 JAN 2220	269	20.	*	2 JAN 0845	394	0.	
1 JAN 0135	20	13.	*	1 JAN 1200	145	3786.	*	1 JAN 2225	270	20.	*	2 JAN 0850	395	0.	
1 JAN 0140	21	13.	*	1 JAN 1205	146	5471.	*	1 JAN 2230	271	20.	*	2 JAN 0855	396	0.	
1 JAN 0145	22	14.	*	1 JAN 1210	147	7124.	*	1 JAN 2235	272	20.	*	2 JAN 0900	397	0.	
1 JAN 0150	23	14.	*	1 JAN 1215	148	8360.	*	1 JAN 2240	273	20.	*	2 JAN 0905	398	0.	
1 JAN 0155	24	14.	*	1 JAN 1220	149	8932.	*	1 JAN 2245	274	20.	*	2 JAN 0910	399	0.	
1 JAN 0200	25	15.	*	1 JAN 1225	150	8867.	*	1 JAN 2250	275	20.	*	2 JAN 0915	400	0.	
1 JAN 0205	26	15.	*	1 JAN 1230	151	8231.	*	1 JAN 2255	276	19.	*	2 JAN 0920	401	0.	
1 JAN 0210	27	15.	*	1 JAN 1235	152	7298.	*	1 JAN 2300	277	19.	*	2 JAN 0925	402	0.	
1 JAN 0215	28	15.	*	1 JAN 1240	153	6409.	*	1 JAN 2305	278	19.	*	2 JAN 0930	403	0.	
1 JAN 0220	29	16.	*	1 JAN 1245	154	5564.	*	1 JAN 2310	279	19.	*	2 JAN 0935	404	0.	
1 JAN 0225	30	16.	*	1 JAN 1250	155	4804.	*	1 JAN 2315	280	19.	*	2 JAN 0940	405	0.	
1 JAN 0230	31	16.	*	1 JAN 1255	156	4115.	*	1 JAN 2320	281	19.	*	2 JAN 0945	406	0.	
1 JAN 0235	32	16.	*	1 JAN 1300	157	3516.	*	1 JAN 2325	282	19.	*	2 JAN 0950	407	0.	
1 JAN 0240	33	16.	*	1 JAN 1305	158	2964.	*	1 JAN 2330	283	19.	*	2 JAN 0955	408	0.	
1 JAN 0245	34	17.	*	1 JAN 1310	159	2514.	*	1 JAN 2335	284	19.	*	2 JAN 1000	409	0.	
1 JAN 0250	35	17.	*	1 JAN 1315	160	2118.	*	1 JAN 2340	285	19.	*	2 JAN 1005	410	0.	
1 JAN 0255	36	17.	*	1 JAN 1320	161	1818.	*	1 JAN 2345	286	19.	*	2 JAN 1010	411	0.	
1 JAN 0300	37	17.	*	1 JAN 1325	162	1566.	*	1 JAN 2350	287	19.	*	2 JAN 1015	412	0.	
1 JAN 0305	38	17.	*	1 JAN 1330	163	1348.	*	1 JAN 2355	288	19.	*	2 JAN 1020	413	0.	
1 JAN 0310	39	17.	*	1 JAN 1335	164	1172.	*	2 JAN 0000	289	19.	*	2 JAN 1025	414	0.	
1 JAN 0315	40	17.	*	1 JAN 1340	165	1026.	*	2 JAN 0005	290	18.	*	2 JAN 1030	415	0.	
1 JAN 0320	41	18.	*	1 JAN 1345	166	904.	*	2 JAN 0010	291	17.	*	2 JAN 1035	416	0.	
1 JAN 0325	42	18.	*	1 JAN 1350	167	801.	*	2 JAN 0015	292	16.	*	2 JAN 1040	417	0.	
1 JAN 0330	43	18.	*	1 JAN 1355	168	713.	*	2 JAN 0020	293	15.	*	2 JAN 1045	418	0.	
1 JAN 0335	44	18.	*	1 JAN 1400	169	631.	*	2 JAN 0025	294	14.	*	2 JAN 1050	419	0.	
1 JAN 0340	45	18.	*	1 JAN 1405	170	559.	*	2 JAN 0030	295	13.	*	2 JAN 1055	420	0.	
1 JAN 0345	46	18.	*	1 JAN 1410	171	500.	*	2 JAN 0035	296	12.	*	2 JAN 1100	421	0.	
1 JAN 0350	47	18.	*	1 JAN 1415	172	453.	*	2 JAN 0040	297	11.	*	2 JAN 1105	422	0.	
1 JAN 0355	48	18.	*	1 JAN 1420	173	412.	*	2 JAN 0045	298	10.	*	2 JAN 1110	423	0.	
1 JAN 0400	49	19.	*	1 JAN 1425	174	375.	*	2 JAN 0050	299	9.	*	2 JAN 1115	424	0.	
1 JAN 0405	50	19.	*	1 JAN 1430	175	344.	*	2 JAN 0055	300	9.	*	2 JAN 1120	425	0.	
1 JAN 0410	51	20.	*	1 JAN 1435	176	318.	*	2 JAN 0100	301	8.	*	2 JAN 1125	426	0.	
1 JAN 0415	52	20.	*	1 JAN 1440	177	290.	*	2 JAN 0105	302	7.	*	2 JAN 1130	427	0.	
1 JAN 0420	53	21.	*	1 JAN 1445	178	264.	*	2 JAN 0110	303	7.	*	2 JAN 1135	428	0.	
1 JAN 0425	54	21.	*	1 JAN 1450	179	240.	*	2 JAN 0115	304	6.	*	2 JAN 1140	429	0.	
1 JAN 0430	55	21.	*	1 JAN 1455	180	221.	*	2 JAN 0120	305	6.	*	2 JAN 1145	430	0.	
1 JAN 0435	56	22.	*	1 JAN 1500	181	204.	*	2 JAN 0125	306	6.	*	2 JAN 1150	431	0.	
1 JAN 0440	57	22.	*	1 JAN 1505	182	190.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.	
1 JAN 0445	58	22.	*	1 JAN 1510	183	177.	*	2 JAN 0135	308	5.	*	2 JAN 1200	433	0.	
1 JAN 0450	59	22.	*	1 JAN 1515	184	166.	*	2 JAN 0140	309	5.	*	2 JAN 1205	434	0.	
1 JAN 0455	60	23.	*	1 JAN 1520	185	156.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.	
1 JAN 0500	61	23.	*	1 JAN 1525	186	148.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.	
1 JAN 0505	62	23.	*	1 JAN 1530	187	140.	*	2 JAN 0155	312	4.	*	2 JAN 1220	437	0.	
1 JAN 0510	63	23.	*	1 JAN 1535	188	132.	*	2 JAN 0200	313	4.	*	2 JAN 1225	438	0.	
1 JAN 0515	64	23.	*	1 JAN 1540	189	125.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.	
1 JAN 0520	65	23.	*	1 JAN 1545	190	119.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.	
1 JAN 0525	66	24.	*	1 JAN 1550	191	113.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.	
1 JAN 0530	67	24.	*	1 JAN 1555	192	108.	*	2 JAN 0220	317	3.	*	2 JAN 1245	442	0.	
1 JAN 0535	68	24.	*	1 JAN 1600	193	104.	*	2 JAN 0225	318	3.	*	2 JAN 1250	443	0.	
1 JAN 0540	69	24.	*	1 JAN 1605	194	100.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.	
1 JAN 0545	70	24.	*	1 JAN 1610	195	96.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.	
1 JAN 0550	71	24.	*	1 JAN 1615	196	93.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.	
1 JAN 0555	72	24.	*	1 JAN 1620	197	91.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.	
1 JAN 0600	73	24.	*	1 JAN 1625	198	89.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.	
1 JAN 0605	74	24.	*	1 JAN 1630	199	87.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.	
1 JAN 0610	75	25.	*	1 JAN 1635	200	85.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.	
1 JAN 0615	76	25.	*	1 JAN 1640	201	84.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.	
1 JAN 0620	77	25.	*	1 JAN 1645	202	82.	*	2 JAN 0310	327	2.	*	2 JAN 1335	452	0.	
1 JAN 0625	78	26.	*	1 JAN 1650	203	80.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.	
1 JAN 0630	79	26.	*	1 JAN 1655	204	78.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.	
1 JAN 0635	80	27.	*	1 JAN 1700	205	76.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.	
1 JAN 0640	81	27.	*	1 JAN 1705	206	74.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.	
1 JAN 0645	82	28.	*	1 JAN 1710	207	71.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.	
1 JAN 0650	83	28.	*	1 JAN 1715	208	69.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.	
1 JAN 0655	84	28.	*	1 JAN 1720	209	67.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.	
1 JAN 0700	85	28.	*	1 JAN 1725	210	66.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.	
1 JAN 0705	86	29.	*	1 JAN 1730	211	64.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.	
1 JAN 0710	87	29.	*	1 JAN 1735	212	63.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.	
1 JAN 0715	88	29.	*	1 JAN 1740	213	62.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.	
1 JAN 0720	89	29.	*	1 JAN 1745	214	61.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.	
1 JAN 0725	90	29.	*	1 JAN 1750	215	60.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.	
1 JAN 0730	91	30.	*	1 JAN 1755	216	59.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.	
1 JAN 0735	92	30.	*	1 JAN 1800	217	58.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.	
1 JAN 0740	93	30.	*	1 JAN 1805	218	57.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.	
1 JAN 0745	94	30.	*	1 JAN 1810	219	55.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.	
1 JAN 0750	95	30.	*	1 JAN 1815	220	53.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.	
1 JAN 0755	96	30.	*	1 JAN 1820	221	51.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.	
1 JAN 0800	97	30.	*	1 JAN 1825	222	50.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.	
1 JAN 0805	98	30.	*	1 JAN 1830	223	48.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.	
1 JAN 0810	99	31.	*	1 JAN 1835	224	47.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.	
1 JAN 0815	100	31.	*	1 JAN 1840	225	45.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.	
1 JAN 0820	101	31.	*	1 JAN 1845	226	44.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.	
1 JAN 0825	102	32.	*	1 JAN 1850	227	43.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.	
1 JAN 0830	103	33.	*	1 JAN 1855	228	42.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.	
1 JAN 0835	104	34.	*	1 JAN 1900	229	41.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.	
1 JAN 0840	105	35.	*	1 JAN 1905	230	40.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.	
1 JAN 0845	106	35.	*	1 JAN 1910	231	40.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.	
1 JAN 0850	107	36.	*	1 JAN 1915	232	39.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.	
1 JAN 0855	108	37.	*	1 JAN 1920	233	38.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.	
1 JAN 0900	109	37.	*	1 JAN 1925	234	38.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.	
1 JAN 0905	110	38.	*	1 JAN 1930	235	38.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.	
1 JAN 0910	111	39.	*	1 JAN 1935	236	38.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.	

1 JAN	0915	112	39.	*	1 JAN	1940	237	37.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	40.	*	1 JAN	1945	238	37.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	41.	*	1 JAN	1950	239	37.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	42.	*	1 JAN	1955	240	37.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	42.	*	1 JAN	2000	241	36.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	43.	*	1 JAN	2005	242	35.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	44.	*	1 JAN	2010	243	34.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	46.	*	1 JAN	2015	244	33.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	48.	*	1 JAN	2020	245	32.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	50.	*	1 JAN	2025	246	31.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	52.	*	1 JAN	2030	247	30.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	55.	*	1 JAN	2035	248	29.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	59.	*	1 JAN	2040	249	28.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	63.	*	1 JAN	2045	250	27.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 8932.	12.33	1591.	421.	243.	243.
		(INCHES) 1.920	2.031	2.034	2.034
		(AC-FT) 789.	834.	835.	835.

CUMULATIVE AREA = 7.70 SQ MI

HYDROGRAPH AT C003
TRANSPOSITION AREA 1.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	66.	1	JAN	2050	251	26.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	72.	1	JAN	2055	252	25.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	80.	1	JAN	2100	253	24.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	88.	1	JAN	2105	254	24.	2	JAN	0730	379	0.
1	JAN	0020	5	2.	1	JAN	1045	130	98.	1	JAN	2110	255	23.	2	JAN	0735	380	0.
1	JAN	0025	6	3.	1	JAN	1050	131	111.	1	JAN	2115	256	23.	2	JAN	0740	381	0.
1	JAN	0030	7	4.	1	JAN	1055	132	126.	1	JAN	2120	257	22.	2	JAN	0745	382	0.
1	JAN	0035	8	5.	1	JAN	1100	133	143.	1	JAN	2125	258	22.	2	JAN	0750	383	0.
1	JAN	0040	9	6.	1	JAN	1105	134	164.	1	JAN	2130	259	22.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	187.	1	JAN	2135	260	21.	2	JAN	0800	385	0.
1	JAN	0050	11	7.	1	JAN	1115	136	213.	1	JAN	2140	261	21.	2	JAN	0805	386	0.
1	JAN	0055	12	8.	1	JAN	1120	137	244.	1	JAN	2145	262	21.	2	JAN	0810	387	0.
1	JAN	0100	13	9.	1	JAN	1125	138	280.	1	JAN	2150	263	21.	2	JAN	0815	388	0.
1	JAN	0105	14	10.	1	JAN	1130	139	319.	1	JAN	2155	264	20.	2	JAN	0820	389	0.
1	JAN	0110	15	10.	1	JAN	1135	140	407.	1	JAN	2200	265	20.	2	JAN	0825	390	0.
1	JAN	0115	16	11.	1	JAN	1140	141	599.	1	JAN	2205	266	20.	2	JAN	0830	391	0.
1	JAN	0120	17	11.	1	JAN	1145	142	943.	1	JAN	2210	267	20.	2	JAN	0835	392	0.
1	JAN	0125	18	12.	1	JAN	1150	143	1540.	1	JAN	2215	268	20.	2	JAN	0840	393	0.
1	JAN	0130	19	12.	1	JAN	1155	144	2422.	1	JAN	2220	269	20.	2	JAN	0845	394	0.
1	JAN	0135	20	13.	1	JAN	1200	145	3746.	1	JAN	2225	270	20.	2	JAN	0850	395	0.
1	JAN	0140	21	13.	1	JAN	1205	146	5411.	1	JAN	2230	271	20.	2	JAN	0855	396	0.
1	JAN	0145	22	14.	1	JAN	1210	147	7052.	1	JAN	2235	272	20.	2	JAN	0900	397	0.
1	JAN	0150	23	14.	1	JAN	1215	148	8279.	1	JAN	2240	273	19.	2	JAN	0905	398	0.
1	JAN	0155	24	14.	1	JAN	1220	149	8848.	1	JAN	2245	274	19.	2	JAN	0910	399	0.
1	JAN	0200	25	14.	1	JAN	1225	150	8788.	1	JAN	2250	275	19.	2	JAN	0915	400	0.
1	JAN	0205	26	15.	1	JAN	1230	151	8158.	1	JAN	2255	276	19.	2	JAN	0920	401	0.
1	JAN	0210	27	15.	1	JAN	1235	152	7232.	1	JAN	2300	277	19.	2	JAN	0925	402	0.
1	JAN	0215	28	15.	1	JAN	1240	153	6352.	1	JAN	2305	278	19.	2	JAN	0930	403	0.
1	JAN	0220	29	15.	1	JAN	1245	154	5513.	1	JAN	2310	279	19.	2	JAN	0935	404	0.
1	JAN	0225	30	16.	1	JAN	1250	155	4761.	1	JAN	2315	280	19.	2	JAN	0940	405	0.
1	JAN	0230	31	16.	1	JAN	1255	156	4076.	1	JAN	2320	281	19.	2	JAN	0945	406	0.
1	JAN	0235	32	16.	1	JAN	1300	157	3483.	1	JAN	2325	282	19.	2	JAN	0950	407	0.
1	JAN	0240	33	16.	1	JAN	1305	158	2934.	1	JAN	2330	283	19.	2	JAN	0955	408	0.
1	JAN	0245	34	16.	1	JAN	1310	159	2490.	1	JAN	2335	284	19.	2	JAN	1000	409	0.
1	JAN	0250	35	17.	1	JAN	1315	160	2096.	1	JAN	2340	285	19.	2	JAN	1005	410	0.
1	JAN	0255	36	17.	1	JAN	1320	161	1802.	1	JAN	2345	286	19.	2	JAN	1010	411	0.
1	JAN	0300	37	17.	1	JAN	1325	162	1551.	1	JAN	2350	287	19.	2	JAN	1015	412	0.
1	JAN	0305	38	17.	1	JAN	1330	163	1336.	1	JAN	2355	288	19.	2	JAN	1020	413	0.
1	JAN	0310	39	17.	1	JAN	1335	164	1161.	2	JAN	0000	289	18.	2	JAN	1025	414	0.
1	JAN	0315	40	17.	1	JAN	1340	165	1016.	2	JAN	0005	290	18.	2	JAN	1030	415	0.
1	JAN	0320	41	17.	1	JAN	1345	166	896.	2	JAN	0010	291	17.	2	JAN	1035	416	0.
1	JAN	0325	42	18.	1	JAN	1350	167	794.	2	JAN	0015	292	16.	2	JAN	1040	417	0.
1	JAN	0330	43	18.	1	JAN	1355	168	705.	2	JAN	0020	293	15.	2	JAN	1045	418	0.
1	JAN	0335	44	18.	1	JAN	1400	169	624.	2	JAN	0025	294	14.	2	JAN	1050	419	0.
1	JAN	0340	45	18.	1	JAN	1405	170	553.	2	JAN	0030	295	13.	2	JAN	1055	420	0.
1	JAN	0345	46	18.	1	JAN	1410	171	495.	2	JAN	0035	296	12.	2	JAN	1100	421	0.
1	JAN	0350	47	18.	1	JAN	1415	172	448.	2	JAN	0040	297	11.	2	JAN	1105	422	0.
1	JAN	0355	48	18.	1	JAN	1420	173	407.	2	JAN	0045	298	10.	2	JAN	1110	423	0.
1	JAN	0400	49	19.	1	JAN	1425	174	370.	2	JAN	0050	299	9.	2	JAN	1115	424	0.
1	JAN	0405	50	19.	1	JAN	1430	175	340.	2	JAN	0055	300	8.	2	JAN	1120	425	0.
1	JAN	0410	51	20.	1	JAN	1435	176	314.	2	JAN	0100	301	8.	2	JAN	1125	426	0.
1	JAN	0415	52	20.	1	JAN	1440	177	286.	2	JAN	0105	302	7.	2	JAN	1130	427	0.
1	JAN	0420	53	20.	1	JAN	1445	178	261.	2	JAN	0110	303	7.	2	JAN	1135	428	0.
1	JAN	0425	54	21.	1	JAN	1450	179	236.	2	JAN	0115	304	6.	2	JAN	1140	429	0.
1	JAN	0430	55	21.	1	JAN	1455	180	218.	2	JAN	0120	305	6.	2	JAN	1145	430	0.
1	JAN	0435	56	21.	1	JAN	1500	181	201.	2	JAN	0125	306	6.	2	JAN	1150	431	0.
1	JAN	0440	57	22.	1	JAN	1505	182	187.	2	JAN	0130	307	5.	2	JAN	1155	432	0.
1	JAN	0445	58	22.	1	JAN	1510	183	175.	2	JAN	0135	308	5.	2	JAN	1200	433	0.
1	JAN	0450	59	22.	1	JAN	1515	184	164.	2	JAN	0140	309	5.	2	JAN	1205	434	0.
1	JAN	0455	60	22.	1	JAN	1520	185	154.	2	JAN	0145	310	4.	2	JAN	1210	435	0.
1	JAN	0500	61	23.	1	JAN	1525	186	145.	2	JAN	0150	311	4.	2	JAN	1215	436	0.
1	JAN	0505	62	23.	1	JAN	1530	187	137.	2	JAN	0155	312	4.	2	JAN	1220	437	0.
1	JAN	0510	63	23.	1	JAN	1535	188	130.	2	JAN	0200	313	4.	2	JAN	1225	438	0.
1	JAN	0515	64	23.	1	JAN	1540	189	123.	2	JAN	0205	314	3.	2	JAN	1230	439	0.
1	JAN	0520	65	23.	1	JAN	1545	190	117.	2	JAN	0210	315	3.	2	JAN	1235	440	0.
1	JAN	0525	66	23.	1	JAN	1550	191	111.	2	JAN	0215	316	3.	2	JAN	1240	441	0.
1	JAN	0530	67	24.	1	JAN	1555	192	106.	2	JAN	0220	317	3.	2	JAN	1245	442	0.
1	JAN	0535	68	24.	1	JAN	1600	193	102.	2	JAN	0225	318	3.	2	JAN	1250	443	0.
1	JAN	0540	69	24.	1	JAN	1605	194	98.	2	JAN	0230	319	2.	2	JAN	1255	444	0.

1 JAN 0545	70	24.	*	1 JAN 1610	195	94.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	24.	*	1 JAN 1615	196	92.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	24.	*	1 JAN 1620	197	89.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	24.	*	1 JAN 1625	198	87.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	24.	*	1 JAN 1630	199	85.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	24.	*	1 JAN 1635	200	84.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	25.	*	1 JAN 1640	201	82.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.
1 JAN 0620	77	25.	*	1 JAN 1645	202	81.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	26.	*	1 JAN 1650	203	79.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	77.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	27.	*	1 JAN 1700	205	75.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	27.	*	1 JAN 1705	206	72.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	27.	*	1 JAN 1710	207	70.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	28.	*	1 JAN 1715	208	68.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	28.	*	1 JAN 1720	209	66.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	28.	*	1 JAN 1725	210	65.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	29.	*	1 JAN 1730	211	63.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	29.	*	1 JAN 1735	212	62.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	29.	*	1 JAN 1740	213	61.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	29.	*	1 JAN 1745	214	60.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	29.	*	1 JAN 1750	215	59.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	29.	*	1 JAN 1755	216	58.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	30.	*	1 JAN 1800	217	57.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	30.	*	1 JAN 1805	218	56.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	30.	*	1 JAN 1810	219	54.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	30.	*	1 JAN 1815	220	52.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	30.	*	1 JAN 1820	221	51.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	30.	*	1 JAN 1825	222	49.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	30.	*	1 JAN 1830	223	47.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	30.	*	1 JAN 1835	224	46.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	31.	*	1 JAN 1840	225	44.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	31.	*	1 JAN 1845	226	43.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	32.	*	1 JAN 1850	227	42.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	33.	*	1 JAN 1855	228	41.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	34.	*	1 JAN 1900	229	40.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	34.	*	1 JAN 1905	230	39.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	35.	*	1 JAN 1910	231	39.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	36.	*	1 JAN 1915	232	38.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	37.	*	1 JAN 1920	233	38.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	37.	*	1 JAN 1925	234	37.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	38.	*	1 JAN 1930	235	37.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	38.	*	1 JAN 1935	236	37.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	39.	*	1 JAN 1940	237	37.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	40.	*	1 JAN 1945	238	36.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	41.	*	1 JAN 1950	239	36.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	41.	*	1 JAN 1955	240	36.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	42.	*	1 JAN 2000	241	35.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	43.	*	1 JAN 2005	242	35.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	44.	*	1 JAN 2010	243	34.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	45.	*	1 JAN 2015	244	33.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	47.	*	1 JAN 2020	245	31.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	49.	*	1 JAN 2025	246	30.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	52.	*	1 JAN 2030	247	29.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	54.	*	1 JAN 2035	248	28.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	57.	*	1 JAN 2040	249	27.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	61.	*	1 JAN 2045	250	26.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8848.	12.33		1575.	416.	241.	241.
		(INCHES)	1.901	2.010	2.013	2.013
		(AC-FT)	781.	826.	827.	827.

CUMULATIVE AREA = 7.70 SQ MI

HYDROGRAPH AT C003
TRANSPOSITION AREA 5.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	60.	*	1 JAN 2050	251	24.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	65.	*	1 JAN 2055	252	24.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	72.	*	1 JAN 2100	253	23.	*	2 JAN 0725	378	0.
1 JAN 0015	4	1.	*	1 JAN 1040	129	80.	*	1 JAN 2105	254	23.	*	2 JAN 0730	379	0.
1 JAN 0020	5	2.	*	1 JAN 1045	130	90.	*	1 JAN 2110	255	22.	*	2 JAN 0735	380	0.
1 JAN 0025	6	2.	*	1 JAN 1050	131	102.	*	1 JAN 2115	256	22.	*	2 JAN 0740	381	0.
1 JAN 0030	7	3.	*	1 JAN 1055	132	116.	*	1 JAN 2120	257	21.	*	2 JAN 0745	382	0.
1 JAN 0035	8	4.	*	1 JAN 1100	133	133.	*	1 JAN 2125	258	21.	*	2 JAN 0750	383	0.
1 JAN 0040	9	5.	*	1 JAN 1105	134	152.	*	1 JAN 2130	259	21.	*	2 JAN 0755	384	0.
1 JAN 0045	10	6.	*	1 JAN 1110	135	174.	*	1 JAN 2135	260	21.	*	2 JAN 0800	385	0.
1 JAN 0050	11	7.	*	1 JAN 1115	136	199.	*	1 JAN 2140	261	20.	*	2 JAN 0805	386	0.
1 JAN 0055	12	8.	*	1 JAN 1120	137	227.	*	1 JAN 2145	262	20.	*	2 JAN 0810	387	0.
1 JAN 0100	13	9.	*	1 JAN 1125	138	261.	*	1 JAN 2150	263	20.	*	2 JAN 0815	388	0.
1 JAN 0105	14	9.	*	1 JAN 1130	139	298.	*	1 JAN 2155	264	20.	*	2 JAN 0820	389	0.
1 JAN 0110	15	10.	*	1 JAN 1135	140	380.	*	1 JAN 2200	265	20.	*	2 JAN 0825	390	0.
1 JAN 0115	16	11.	*	1 JAN 1140	141	562.	*	1 JAN 2205	266	20.	*	2 JAN 0830	391	0.
1 JAN 0120	17	11.	*	1 JAN 1145	142	895.	*	1 JAN 2210	267	20.	*	2 JAN 0835	392	0.
1 JAN 0125	18	12.	*	1 JAN 1150	143	1472.	*	1 JAN 2215	268	19.	*	2 JAN 0840	393	0.
1 JAN 0130	19	12.	*	1 JAN 1155	144	2328.	*	1 JAN 2220	269	19.	*	2 JAN 0845	394	0.
1 JAN 0135	20	12.	*	1 JAN 1200	145	3613.	*	1 JAN 2225	270	19.	*	2 JAN 0850	395	0.
1 JAN 0140	21	13.	*	1 JAN 1205	146	5224.	*	1 JAN 2230	271	19.	*	2 JAN 0855	396	0.
1 JAN 0145	22	13.	*	1 JAN 1210	147	6807.	*	1 JAN 2235	272	19.	*	2 JAN 0900	397	0.
1 JAN 0150	23	14.	*	1 JAN 1215	148	8007.	*	1 JAN 2240	273	19.	*	2 JAN 0905	398	0.
1 JAN 0155	24	14.	*	1 JAN 1220	149	8567.	*	1 JAN 2245	274	19.	*	2 JAN 0910	399	0.
1 JAN 0200	25	14.	*	1 JAN 1225	150	8522.	*	1 JAN 2250	275	19.	*	2 JAN 0915	400	0.
1 JAN 0205	26	14.	*	1 JAN 1230	151	7914.	*	1 JAN 2255	276	19.	*	2 JAN 0920	401	0.
1 JAN 0210	27	15.	*	1 JAN 1235	152	7016.	*	1 JAN 2300	277	19.	*	2 JAN 0925	402	0.

1 JAN	0215	28	15.	*	1 JAN	1240	153	6164.	*	1 JAN	2305	278	19.	*	2 JAN	0930	403	0.
1 JAN	0220	29	15.	*	1 JAN	1245	154	5344.	*	1 JAN	2310	279	19.	*	2 JAN	0935	404	0.
1 JAN	0225	30	15.	*	1 JAN	1250	155	4617.	*	1 JAN	2315	280	19.	*	2 JAN	0940	405	0.
1 JAN	0230	31	15.	*	1 JAN	1255	156	3948.	*	1 JAN	2320	281	19.	*	2 JAN	0945	406	0.
1 JAN	0235	32	16.	*	1 JAN	1300	157	3373.	*	1 JAN	2325	282	19.	*	2 JAN	0950	407	0.
1 JAN	0240	33	16.	*	1 JAN	1305	158	2834.	*	1 JAN	2330	283	19.	*	2 JAN	0955	408	0.
1 JAN	0245	34	16.	*	1 JAN	1310	159	2407.	*	1 JAN	2335	284	19.	*	2 JAN	1000	409	0.
1 JAN	0250	35	16.	*	1 JAN	1315	160	2023.	*	1 JAN	2340	285	19.	*	2 JAN	1005	410	0.
1 JAN	0255	36	16.	*	1 JAN	1320	161	1746.	*	1 JAN	2345	286	18.	*	2 JAN	1010	411	0.
1 JAN	0300	37	17.	*	1 JAN	1325	162	1501.	*	1 JAN	2350	287	18.	*	2 JAN	1015	412	0.
1 JAN	0305	38	17.	*	1 JAN	1330	163	1295.	*	1 JAN	2355	288	18.	*	2 JAN	1020	413	0.
1 JAN	0310	39	17.	*	1 JAN	1335	164	1124.	*	2 JAN	0000	289	18.	*	2 JAN	1025	414	0.
1 JAN	0315	40	17.	*	1 JAN	1340	165	983.	*	2 JAN	0005	290	18.	*	2 JAN	1030	415	0.
1 JAN	0320	41	17.	*	1 JAN	1345	166	866.	*	2 JAN	0010	291	17.	*	2 JAN	1035	416	0.
1 JAN	0325	42	17.	*	1 JAN	1350	167	767.	*	2 JAN	0015	292	16.	*	2 JAN	1040	417	0.
1 JAN	0330	43	17.	*	1 JAN	1355	168	681.	*	2 JAN	0020	293	15.	*	2 JAN	1045	418	0.
1 JAN	0335	44	17.	*	1 JAN	1400	169	601.	*	2 JAN	0025	294	14.	*	2 JAN	1050	419	0.
1 JAN	0340	45	17.	*	1 JAN	1405	170	534.	*	2 JAN	0030	295	12.	*	2 JAN	1055	420	0.
1 JAN	0345	46	18.	*	1 JAN	1410	171	477.	*	2 JAN	0035	296	11.	*	2 JAN	1100	421	0.
1 JAN	0350	47	18.	*	1 JAN	1415	172	431.	*	2 JAN	0040	297	10.	*	2 JAN	1105	422	0.
1 JAN	0355	48	18.	*	1 JAN	1420	173	391.	*	2 JAN	0045	298	10.	*	2 JAN	1110	423	0.
1 JAN	0400	49	18.	*	1 JAN	1425	174	355.	*	2 JAN	0050	299	9.	*	2 JAN	1115	424	0.
1 JAN	0405	50	19.	*	1 JAN	1430	175	327.	*	2 JAN	0055	300	8.	*	2 JAN	1120	425	0.
1 JAN	0410	51	19.	*	1 JAN	1435	176	301.	*	2 JAN	0100	301	8.	*	2 JAN	1125	426	0.
1 JAN	0415	52	20.	*	1 JAN	1440	177	274.	*	2 JAN	0105	302	7.	*	2 JAN	1130	427	0.
1 JAN	0420	53	20.	*	1 JAN	1445	178	249.	*	2 JAN	0110	303	7.	*	2 JAN	1135	428	0.
1 JAN	0425	54	20.	*	1 JAN	1450	179	225.	*	2 JAN	0115	304	6.	*	2 JAN	1140	429	0.
1 JAN	0430	55	21.	*	1 JAN	1455	180	207.	*	2 JAN	0120	305	6.	*	2 JAN	1145	430	0.
1 JAN	0435	56	21.	*	1 JAN	1500	181	192.	*	2 JAN	0125	306	5.	*	2 JAN	1150	431	0.
1 JAN	0440	57	21.	*	1 JAN	1505	182	178.	*	2 JAN	0130	307	5.	*	2 JAN	1155	432	0.
1 JAN	0445	58	21.	*	1 JAN	1510	183	166.	*	2 JAN	0135	308	5.	*	2 JAN	1200	433	0.
1 JAN	0450	59	22.	*	1 JAN	1515	184	156.	*	2 JAN	0140	309	5.	*	2 JAN	1205	434	0.
1 JAN	0455	60	22.	*	1 JAN	1520	185	146.	*	2 JAN	0145	310	4.	*	2 JAN	1210	435	0.
1 JAN	0500	61	22.	*	1 JAN	1525	186	138.	*	2 JAN	0150	311	4.	*	2 JAN	1215	436	0.
1 JAN	0505	62	22.	*	1 JAN	1530	187	130.	*	2 JAN	0155	312	4.	*	2 JAN	1220	437	0.
1 JAN	0510	63	22.	*	1 JAN	1535	188	123.	*	2 JAN	0200	313	4.	*	2 JAN	1225	438	0.
1 JAN	0515	64	23.	*	1 JAN	1540	189	116.	*	2 JAN	0205	314	3.	*	2 JAN	1230	439	0.
1 JAN	0520	65	23.	*	1 JAN	1545	190	110.	*	2 JAN	0210	315	3.	*	2 JAN	1235	440	0.
1 JAN	0525	66	23.	*	1 JAN	1550	191	105.	*	2 JAN	0215	316	3.	*	2 JAN	1240	441	0.
1 JAN	0530	67	23.	*	1 JAN	1555	192	100.	*	2 JAN	0220	317	3.	*	2 JAN	1245	442	0.
1 JAN	0535	68	23.	*	1 JAN	1600	193	96.	*	2 JAN	0225	318	3.	*	2 JAN	1250	443	0.
1 JAN	0540	69	23.	*	1 JAN	1605	194	92.	*	2 JAN	0230	319	2.	*	2 JAN	1255	444	0.
1 JAN	0545	70	23.	*	1 JAN	1610	195	89.	*	2 JAN	0235	320	2.	*	2 JAN	1300	445	0.
1 JAN	0550	71	23.	*	1 JAN	1615	196	87.	*	2 JAN	0240	321	2.	*	2 JAN	1305	446	0.
1 JAN	0555	72	23.	*	1 JAN	1620	197	84.	*	2 JAN	0245	322	2.	*	2 JAN	1310	447	0.
1 JAN	0600	73	23.	*	1 JAN	1625	198	82.	*	2 JAN	0250	323	2.	*	2 JAN	1315	448	0.
1 JAN	0605	74	24.	*	1 JAN	1630	199	81.	*	2 JAN	0255	324	2.	*	2 JAN	1320	449	0.
1 JAN	0610	75	24.	*	1 JAN	1635	200	79.	*	2 JAN	0300	325	2.	*	2 JAN	1325	450	0.
1 JAN	0615	76	24.	*	1 JAN	1640	201	78.	*	2 JAN	0305	326	2.	*	2 JAN	1330	451	0.
1 JAN	0620	77	25.	*	1 JAN	1645	202	76.	*	2 JAN	0310	327	1.	*	2 JAN	1335	452	0.
1 JAN	0625	78	25.	*	1 JAN	1650	203	75.	*	2 JAN	0315	328	1.	*	2 JAN	1340	453	0.
1 JAN	0630	79	25.	*	1 JAN	1655	204	73.	*	2 JAN	0320	329	1.	*	2 JAN	1345	454	0.
1 JAN	0635	80	26.	*	1 JAN	1700	205	71.	*	2 JAN	0325	330	1.	*	2 JAN	1350	455	0.
1 JAN	0640	81	26.	*	1 JAN	1705	206	68.	*	2 JAN	0330	331	1.	*	2 JAN	1355	456	0.
1 JAN	0645	82	27.	*	1 JAN	1710	207	66.	*	2 JAN	0335	332	1.	*	2 JAN	1400	457	0.
1 JAN	0650	83	27.	*	1 JAN	1715	208	64.	*	2 JAN	0340	333	1.	*	2 JAN	1405	458	0.
1 JAN	0655	84	27.	*	1 JAN	1720	209	63.	*	2 JAN	0345	334	1.	*	2 JAN	1410	459	0.
1 JAN	0700	85	28.	*	1 JAN	1725	210	61.	*	2 JAN	0350	335	1.	*	2 JAN	1415	460	0.
1 JAN	0705	86	28.	*	1 JAN	1730	211	60.	*	2 JAN	0355	336	1.	*	2 JAN	1420	461	0.
1 JAN	0710	87	28.	*	1 JAN	1735	212	59.	*	2 JAN	0400	337	1.	*	2 JAN	1425	462	0.
1 JAN	0715	88	28.	*	1 JAN	1740	213	58.	*	2 JAN	0405	338	1.	*	2 JAN	1430	463	0.
1 JAN	0720	89	28.	*	1 JAN	1745	214	57.	*	2 JAN	0410	339	1.	*	2 JAN	1435	464	0.
1 JAN	0725	90	29.	*	1 JAN	1750	215	56.	*	2 JAN	0415	340	1.	*	2 JAN	1440	465	0.
1 JAN	0730	91	29.	*	1 JAN	1755	216	55.	*	2 JAN	0420	341	1.	*	2 JAN	1445	466	0.
1 JAN	0735	92	29.	*	1 JAN	1800	217	54.	*	2 JAN	0425	342	1.	*	2 JAN	1450	467	0.
1 JAN	0740	93	29.	*	1 JAN	1805	218	53.	*	2 JAN	0430	343	1.	*	2 JAN	1455	468	0.
1 JAN	0745	94	29.	*	1 JAN	1810	219	51.	*	2 JAN	0435	344	0.	*	2 JAN	1500	469	0.
1 JAN	0750	95	29.	*	1 JAN	1815	220	50.	*	2 JAN	0440	345	0.	*	2 JAN	1505	470	0.
1 JAN	0755	96	29.	*	1 JAN	1820	221	48.	*	2 JAN	0445	346	0.	*	2 JAN	1510	471	0.
1 JAN	0800	97	29.	*	1 JAN	1825	222	46.	*	2 JAN	0450	347	0.	*	2 JAN	1515	472	0.
1 JAN	0805	98	29.	*	1 JAN	1830	223	45.	*	2 JAN	0455	348	0.	*	2 JAN	1520	473	0.
1 JAN	0810	99	30.	*	1 JAN	1835	224	43.	*	2 JAN	0500	349	0.	*	2 JAN	1525	474	0.
1 JAN	0815	100	30.	*	1 JAN	1840	225	42.	*	2 JAN	0505	350	0.	*	2 JAN	1530	475	0.
1 JAN	0820	101	30.	*	1 JAN	1845	226	40.	*	2 JAN	0510	351	0.	*	2 JAN	1535	476	0.
1 JAN	0825	102	31.	*	1 JAN	1850	227	39.	*	2 JAN	0515	352	0.	*	2 JAN	1540	477	0.
1 JAN	0830	103	32.	*	1 JAN	1855	228	38.	*	2 JAN	0520	353	0.	*	2 JAN	1545	478	0.
1 JAN	0835	104	33.	*	1 JAN	1900	229	37.	*	2 JAN	0525	354	0.	*	2 JAN	1550	479	0.
1 JAN	0840	105	34.	*	1 JAN	1905	230	37.	*	2 JAN	0530	355	0.	*	2 JAN	1555	480	0.
1 JAN	0845	106	34.	*	1 JAN	1910	231	36.	*	2 JAN	0535	356	0.	*	2 JAN	1600	481	0.
1 JAN	0850	107	35.	*	1 JAN	1915	232	36.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	36.	*	1 JAN	1920	233	35.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	36.	*	1 JAN	1925	234	35.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	37.	*	1 JAN	1930	235	34.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	38.	*	1 JAN	1935	236	34.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	38.	*	1 JAN	1940	237	34.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	39.	*	1 JAN	1945	238	34.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	40.	*	1 JAN	1950	239	34.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	40.	*	1 JAN	1955	240	33.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	41.	*	1 JAN	2000	241	33.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	42.	*	1 JAN	2005	242	32.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	43.	*	1 JAN	2010	243	31.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	44.	*	1 JAN	2015	244	30.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	45.	*	1 JAN	2020	245	29.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	47.	*	1 JAN	2025	246	28.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	48.	*	1 JAN	2030	247	27.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	51.	*	1 JAN	2035	248	26.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	53.	*	1 JAN	2040	249	26.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	56.	*	1 JAN	2045	250	25.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)	(CFS)			
+ 8567.	12.33	1521.	402.	232.	232.

(INCHES)	1.836	1.941	1.943	1.943
(AC-FT)	754.	797.	798.	798.

CUMULATIVE AREA = 7.70 SQ MI

HYDROGRAPH AT C003
TRANSPOSITION AREA 10.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	54.	1 JAN 2050	251	23.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	58.	1 JAN 2055	252	22.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	64.	1 JAN 2100	253	22.	2 JAN 0725	378	0.
1 JAN 0015	4	1.	1 JAN 1040	129	71.	1 JAN 2105	254	21.	2 JAN 0730	379	0.
1 JAN 0020	5	2.	1 JAN 1045	130	81.	1 JAN 2110	255	21.	2 JAN 0735	380	0.
1 JAN 0025	6	2.	1 JAN 1050	131	92.	1 JAN 2115	256	21.	2 JAN 0740	381	0.
1 JAN 0030	7	3.	1 JAN 1055	132	105.	1 JAN 2120	257	20.	2 JAN 0745	382	0.
1 JAN 0035	8	4.	1 JAN 1100	133	120.	1 JAN 2125	258	20.	2 JAN 0750	383	0.
1 JAN 0040	9	5.	1 JAN 1105	134	138.	1 JAN 2130	259	20.	2 JAN 0755	384	0.
1 JAN 0045	10	6.	1 JAN 1110	135	159.	1 JAN 2135	260	20.	2 JAN 0800	385	0.
1 JAN 0050	11	7.	1 JAN 1115	136	182.	1 JAN 2140	261	20.	2 JAN 0805	386	0.
1 JAN 0055	12	7.	1 JAN 1120	137	208.	1 JAN 2145	262	19.	2 JAN 0810	387	0.
1 JAN 0100	13	8.	1 JAN 1125	138	237.	1 JAN 2150	263	19.	2 JAN 0815	388	0.
1 JAN 0105	14	9.	1 JAN 1130	139	273.	1 JAN 2155	264	19.	2 JAN 0820	389	0.
1 JAN 0110	15	10.	1 JAN 1135	140	351.	1 JAN 2200	265	19.	2 JAN 0825	390	0.
1 JAN 0115	16	10.	1 JAN 1140	141	520.	1 JAN 2205	266	19.	2 JAN 0830	391	0.
1 JAN 0120	17	11.	1 JAN 1145	142	839.	1 JAN 2210	267	19.	2 JAN 0835	392	0.
1 JAN 0125	18	11.	1 JAN 1150	143	1391.	1 JAN 2215	268	19.	2 JAN 0840	393	0.
1 JAN 0130	19	12.	1 JAN 1155	144	2216.	1 JAN 2220	269	19.	2 JAN 0845	394	0.
1 JAN 0135	20	12.	1 JAN 1200	145	3453.	1 JAN 2225	270	19.	2 JAN 0850	395	0.
1 JAN 0140	21	12.	1 JAN 1205	146	5000.	1 JAN 2230	271	19.	2 JAN 0855	396	0.
1 JAN 0145	22	13.	1 JAN 1210	147	6511.	1 JAN 2235	272	19.	2 JAN 0900	397	0.
1 JAN 0150	23	13.	1 JAN 1215	148	7679.	1 JAN 2240	273	18.	2 JAN 0905	398	0.
1 JAN 0155	24	13.	1 JAN 1220	149	8234.	1 JAN 2245	274	18.	2 JAN 0910	399	0.
1 JAN 0200	25	14.	1 JAN 1225	150	8197.	1 JAN 2250	275	18.	2 JAN 0915	400	0.
1 JAN 0205	26	14.	1 JAN 1230	151	7619.	1 JAN 2255	276	18.	2 JAN 0920	401	0.
1 JAN 0210	27	14.	1 JAN 1235	152	6763.	1 JAN 2300	277	18.	2 JAN 0925	402	0.
1 JAN 0215	28	14.	1 JAN 1240	153	5934.	1 JAN 2305	278	18.	2 JAN 0930	403	0.
1 JAN 0220	29	15.	1 JAN 1245	154	5148.	1 JAN 2310	279	18.	2 JAN 0935	404	0.
1 JAN 0225	30	15.	1 JAN 1250	155	4440.	1 JAN 2315	280	18.	2 JAN 0940	405	0.
1 JAN 0230	31	15.	1 JAN 1255	156	3799.	1 JAN 2320	281	18.	2 JAN 0945	406	0.
1 JAN 0235	32	15.	1 JAN 1300	157	3237.	1 JAN 2325	282	18.	2 JAN 0950	407	0.
1 JAN 0240	33	15.	1 JAN 1305	158	2724.	1 JAN 2330	283	18.	2 JAN 0955	408	0.
1 JAN 0245	34	16.	1 JAN 1310	159	2307.	1 JAN 2335	284	18.	2 JAN 1000	409	0.
1 JAN 0250	35	16.	1 JAN 1315	160	1942.	1 JAN 2340	285	18.	2 JAN 1005	410	0.
1 JAN 0255	36	16.	1 JAN 1320	161	1678.	1 JAN 2345	286	18.	2 JAN 1010	411	0.
1 JAN 0300	37	16.	1 JAN 1325	162	1441.	1 JAN 2350	287	18.	2 JAN 1015	412	0.
1 JAN 0305	38	16.	1 JAN 1330	163	1246.	1 JAN 2355	288	18.	2 JAN 1020	413	0.
1 JAN 0310	39	16.	1 JAN 1335	164	1080.	2 JAN 0000	289	17.	2 JAN 1025	414	0.
1 JAN 0315	40	16.	1 JAN 1340	165	943.	2 JAN 0005	290	17.	2 JAN 1030	415	0.
1 JAN 0320	41	17.	1 JAN 1345	166	832.	2 JAN 0010	291	16.	2 JAN 1035	416	0.
1 JAN 0325	42	17.	1 JAN 1350	167	735.	2 JAN 0015	292	15.	2 JAN 1040	417	0.
1 JAN 0330	43	17.	1 JAN 1355	168	651.	2 JAN 0020	293	14.	2 JAN 1045	418	0.
1 JAN 0335	44	17.	1 JAN 1400	169	575.	2 JAN 0025	294	13.	2 JAN 1050	419	0.
1 JAN 0340	45	17.	1 JAN 1405	170	510.	2 JAN 0030	295	12.	2 JAN 1055	420	0.
1 JAN 0345	46	17.	1 JAN 1410	171	454.	2 JAN 0035	296	11.	2 JAN 1100	421	0.
1 JAN 0350	47	17.	1 JAN 1415	172	410.	2 JAN 0040	297	10.	2 JAN 1105	422	0.
1 JAN 0355	48	17.	1 JAN 1420	173	371.	2 JAN 0045	298	9.	2 JAN 1110	423	0.
1 JAN 0400	49	18.	1 JAN 1425	174	339.	2 JAN 0050	299	9.	2 JAN 1115	424	0.
1 JAN 0405	50	18.	1 JAN 1430	175	311.	2 JAN 0055	300	8.	2 JAN 1120	425	0.
1 JAN 0410	51	18.	1 JAN 1435	176	285.	2 JAN 0100	301	7.	2 JAN 1125	426	0.
1 JAN 0415	52	19.	1 JAN 1440	177	259.	2 JAN 0105	302	7.	2 JAN 1130	427	0.
1 JAN 0420	53	19.	1 JAN 1445	178	234.	2 JAN 0110	303	6.	2 JAN 1135	428	0.
1 JAN 0425	54	20.	1 JAN 1450	179	211.	2 JAN 0115	304	6.	2 JAN 1140	429	0.
1 JAN 0430	55	20.	1 JAN 1455	180	195.	2 JAN 0120	305	6.	2 JAN 1145	430	0.
1 JAN 0435	56	20.	1 JAN 1500	181	181.	2 JAN 0125	306	5.	2 JAN 1150	431	0.
1 JAN 0440	57	21.	1 JAN 1505	182	168.	2 JAN 0130	307	5.	2 JAN 1155	432	0.
1 JAN 0445	58	21.	1 JAN 1510	183	156.	2 JAN 0135	308	5.	2 JAN 1200	433	0.
1 JAN 0450	59	21.	1 JAN 1515	184	146.	2 JAN 0140	309	4.	2 JAN 1205	434	0.
1 JAN 0455	60	21.	1 JAN 1520	185	137.	2 JAN 0145	310	4.	2 JAN 1210	435	0.
1 JAN 0500	61	21.	1 JAN 1525	186	129.	2 JAN 0150	311	4.	2 JAN 1215	436	0.
1 JAN 0505	62	22.	1 JAN 1530	187	122.	2 JAN 0155	312	4.	2 JAN 1220	437	0.
1 JAN 0510	63	22.	1 JAN 1535	188	115.	2 JAN 0200	313	3.	2 JAN 1225	438	0.
1 JAN 0515	64	22.	1 JAN 1540	189	109.	2 JAN 0205	314	3.	2 JAN 1230	439	0.
1 JAN 0520	65	22.	1 JAN 1545	190	104.	2 JAN 0210	315	3.	2 JAN 1235	440	0.
1 JAN 0525	66	22.	1 JAN 1550	191	99.	2 JAN 0215	316	3.	2 JAN 1240	441	0.
1 JAN 0530	67	22.	1 JAN 1555	192	94.	2 JAN 0220	317	3.	2 JAN 1245	442	0.
1 JAN 0535	68	22.	1 JAN 1600	193	90.	2 JAN 0225	318	2.	2 JAN 1250	443	0.
1 JAN 0540	69	22.	1 JAN 1605	194	87.	2 JAN 0230	319	2.	2 JAN 1255	444	0.
1 JAN 0545	70	22.	1 JAN 1610	195	84.	2 JAN 0235	320	2.	2 JAN 1300	445	0.
1 JAN 0550	71	23.	1 JAN 1615	196	81.	2 JAN 0240	321	2.	2 JAN 1305	446	0.
1 JAN 0555	72	23.	1 JAN 1620	197	79.	2 JAN 0245	322	2.	2 JAN 1310	447	0.
1 JAN 0600	73	23.	1 JAN 1625	198	77.	2 JAN 0250	323	2.	2 JAN 1315	448	0.
1 JAN 0605	74	23.	1 JAN 1630	199	76.	2 JAN 0255	324	2.	2 JAN 1320	449	0.
1 JAN 0610	75	23.	1 JAN 1635	200	74.	2 JAN 0300	325	2.	2 JAN 1325	450	0.
1 JAN 0615	76	23.	1 JAN 1640	201	73.	2 JAN 0305	326	2.	2 JAN 1330	451	0.
1 JAN 0620	77	24.	1 JAN 1645	202	72.	2 JAN 0310	327	1.	2 JAN 1335	452	0.
1 JAN 0625	78	24.	1 JAN 1650	203	70.	2 JAN 0315	328	1.	2 JAN 1340	453	0.
1 JAN 0630	79	25.	1 JAN 1655	204	68.	2 JAN 0320	329	1.	2 JAN 1345	454	0.
1 JAN 0635	80	25.	1 JAN 1700	205	66.	2 JAN 0325	330	1.	2 JAN 1350	455	0.
1 JAN 0640	81	26.	1 JAN 1705	206	64.	2 JAN 0330	331	1.	2 JAN 1355	456	0.
1 JAN 0645	82	26.	1 JAN 1710	207	62.	2 JAN 0335	332	1.	2 JAN 1400	457	0.
1 JAN 0650	83	26.	1 JAN 1715	208	60.	2 JAN 0340	333	1.	2 JAN 1405	458	0.
1 JAN 0655	84	27.	1 JAN 1720	209	58.	2 JAN 0345	334	1.	2 JAN 1410	459	0.
1 JAN 0700	85	27.	1 JAN 1725	210	57.	2 JAN 0350	335	1.	2 JAN 1415	460	0.
1 JAN 0705	86	27.	1 JAN 1730	211	56.	2 JAN 0355	336	1.	2 JAN 1420	461	0.
1 JAN 0710	87	27.	1 JAN 1735	212	54.	2 JAN 0400	337	1.	2 JAN 1425	462	0.
1 JAN 0715	88	27.	1 JAN 1740	213	53.	2 JAN 0405	338	1.	2 JAN 1430	463	0.
1 JAN 0720	89	28.	1 JAN 1745	214	53.	2 JAN 0410	339	1.	2 JAN 1435	464	0.
1 JAN 0725	90	28.	1 JAN 1750	215	52.	2 JAN 0415	340	1.	2 JAN 1440	465	0.
1 JAN 0730	91	28.	1 JAN 1755	216	51.	2 JAN 0420	341	1.	2 JAN 1445	466	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0735	92	28.	1	JAN	1800	217	50.	2	JAN	0425	342	1.	2	JAN	1450	467	0.
1	JAN	0740	93	28.	1	JAN	1805	218	49.	2	JAN	0430	343	1.	2	JAN	1455	468	0.
1	JAN	0745	94	28.	1	JAN	1810	219	48.	2	JAN	0435	344	0.	2	JAN	1500	469	0.
1	JAN	0750	95	28.	1	JAN	1815	220	46.	2	JAN	0440	345	0.	2	JAN	1505	470	0.
1	JAN	0755	96	28.	1	JAN	1820	221	44.	2	JAN	0445	346	0.	2	JAN	1510	471	0.
1	JAN	0800	97	28.	1	JAN	1825	222	43.	2	JAN	0450	347	0.	2	JAN	1515	472	0.
1	JAN	0805	98	29.	1	JAN	1830	223	41.	2	JAN	0455	348	0.	2	JAN	1520	473	0.
1	JAN	0810	99	29.	1	JAN	1835	224	40.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	29.	1	JAN	1840	225	38.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	30.	1	JAN	1845	226	37.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	30.	1	JAN	1850	227	36.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	31.	1	JAN	1855	228	35.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	32.	1	JAN	1900	229	34.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	33.	1	JAN	1905	230	33.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	33.	1	JAN	1910	231	33.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	34.	1	JAN	1915	232	32.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	35.	1	JAN	1920	233	32.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	35.	1	JAN	1925	234	32.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	36.	1	JAN	1930	235	31.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	36.	1	JAN	1935	236	31.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	37.	1	JAN	1940	237	31.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	38.	1	JAN	1945	238	31.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	39.	1	JAN	1950	239	30.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	39.	1	JAN	1955	240	30.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	40.	1	JAN	2000	241	30.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	41.	1	JAN	2005	242	29.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	41.	1	JAN	2010	243	28.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	42.	1	JAN	2015	244	28.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	43.	1	JAN	2020	245	27.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	44.	1	JAN	2025	246	26.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	45.	1	JAN	2030	247	25.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	47.	1	JAN	2035	248	25.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	48.	1	JAN	2040	249	24.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	51.	1	JAN	2045	250	23.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
8234.	12.33	1457.	385.	222.	222.
		(INCHES) 1.759	1.858	1.861	1.861
		(AC-FT) 723.	763.	764.	764.

CUMULATIVE AREA = 7.70 SQ MI

HYDROGRAPH AT C003
TRANSPOSITION AREA 30.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	49.	1	JAN	2050	251	21.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	52.	1	JAN	2055	252	20.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	56.	1	JAN	2100	253	20.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	61.	1	JAN	2105	254	20.	2	JAN	0730	379	0.
1	JAN	0020	5	2.	1	JAN	1045	130	69.	1	JAN	2110	255	19.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	79.	1	JAN	2115	256	19.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	90.	1	JAN	2120	257	19.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	103.	1	JAN	2125	258	19.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	119.	1	JAN	2130	259	19.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	137.	1	JAN	2135	260	19.	2	JAN	0800	385	0.
1	JAN	0050	11	7.	1	JAN	1115	136	158.	1	JAN	2140	261	19.	2	JAN	0805	386	0.
1	JAN	0055	12	7.	1	JAN	1120	137	181.	1	JAN	2145	262	18.	2	JAN	0810	387	0.
1	JAN	0100	13	8.	1	JAN	1125	138	207.	1	JAN	2150	263	18.	2	JAN	0815	388	0.
1	JAN	0105	14	9.	1	JAN	1130	139	238.	1	JAN	2155	264	18.	2	JAN	0820	389	0.
1	JAN	0110	15	9.	1	JAN	1135	140	311.	1	JAN	2200	265	18.	2	JAN	0825	390	0.
1	JAN	0115	16	10.	1	JAN	1140	141	469.	1	JAN	2205	266	18.	2	JAN	0830	391	0.
1	JAN	0120	17	10.	1	JAN	1145	142	763.	1	JAN	2210	267	18.	2	JAN	0835	392	0.
1	JAN	0125	18	11.	1	JAN	1150	143	1279.	1	JAN	2215	268	18.	2	JAN	0840	393	0.
1	JAN	0130	19	11.	1	JAN	1155	144	2059.	1	JAN	2220	269	18.	2	JAN	0845	394	0.
1	JAN	0135	20	12.	1	JAN	1200	145	3227.	1	JAN	2225	270	18.	2	JAN	0850	395	0.
1	JAN	0140	21	12.	1	JAN	1205	146	4682.	1	JAN	2230	271	18.	2	JAN	0855	396	0.
1	JAN	0145	22	12.	1	JAN	1210	147	6107.	1	JAN	2235	272	18.	2	JAN	0900	397	0.
1	JAN	0150	23	13.	1	JAN	1215	148	7213.	1	JAN	2240	273	18.	2	JAN	0905	398	0.
1	JAN	0155	24	13.	1	JAN	1220	149	7757.	1	JAN	2245	274	18.	2	JAN	0910	399	0.
1	JAN	0200	25	13.	1	JAN	1225	150	7731.	1	JAN	2250	275	18.	2	JAN	0915	400	0.
1	JAN	0205	26	13.	1	JAN	1230	151	7201.	1	JAN	2255	276	17.	2	JAN	0920	401	0.
1	JAN	0210	27	14.	1	JAN	1235	152	6396.	1	JAN	2300	277	17.	2	JAN	0925	402	0.
1	JAN	0215	28	14.	1	JAN	1240	153	5605.	1	JAN	2305	278	17.	2	JAN	0930	403	0.
1	JAN	0220	29	14.	1	JAN	1245	154	4868.	1	JAN	2310	279	17.	2	JAN	0935	404	0.
1	JAN	0225	30	14.	1	JAN	1250	155	4188.	1	JAN	2315	280	17.	2	JAN	0940	405	0.
1	JAN	0230	31	14.	1	JAN	1255	156	3585.	1	JAN	2320	281	17.	2	JAN	0945	406	0.
1	JAN	0235	32	15.	1	JAN	1300	157	3038.	1	JAN	2325	282	17.	2	JAN	0950	407	0.
1	JAN	0240	33	15.	1	JAN	1305	158	2567.	1	JAN	2330	283	17.	2	JAN	0955	408	0.
1	JAN	0245	34	15.	1	JAN	1310	159	2169.	1	JAN	2335	284	17.	2	JAN	1000	409	0.
1	JAN	0250	35	15.	1	JAN	1315	160	1840.	1	JAN	2340	285	17.	2	JAN	1005	410	0.
1	JAN	0255	36	15.	1	JAN	1320	161	1586.	1	JAN	2345	286	17.	2	JAN	1010	411	0.
1	JAN	0300	37	15.	1	JAN	1325	162	1360.	1	JAN	2350	287	17.	2	JAN	1015	412	0.
1	JAN	0305	38	15.	1	JAN	1330	163	1181.	1	JAN	2355	288	17.	2	JAN	1020	413	0.
1	JAN	0310	39	16.	1	JAN	1335	164	1021.	2	JAN	0000	289	17.	2	JAN	1025	414	0.
1	JAN	0315	40	16.	1	JAN	1340	165	889.	2	JAN	0005	290	16.	2	JAN	1030	415	0.
1	JAN	0320	41	16.	1	JAN	1345	166	784.	2	JAN	0010	291	16.	2	JAN	1035	416	0.
1	JAN	0325	42	16.	1	JAN	1350	167	691.	2	JAN	0015	292	15.	2	JAN	1040	417	0.
1	JAN	0330	43	16.	1	JAN	1355	168	610.	2	JAN	0020	293	14.	2	JAN	1045	418	0.
1	JAN	0335	44	16.	1	JAN	1400	169	539.	2	JAN	0025	294	13.	2	JAN	1050	419	0.
1	JAN	0340	45	16.	1	JAN	1405	170	477.	2	JAN	0030	295	12.	2	JAN	1055	420	0.
1	JAN	0345	46	16.	1	JAN	1410	171	423.	2	JAN	0035	296	11.	2	JAN	1100	421	0.
1	JAN	0350	47	16.	1	JAN	1415	172	381.	2	JAN	0040	297	10.	2	JAN	1105	422	0.
1	JAN	0355	48	17.	1	JAN	1420	173	345.	2	JAN	0045	298	9.	2	JAN	1110	423	0.
1	JAN	0400	49	17.	1	JAN	1425	174	315.	2	JAN	0050	299	8.	2	JAN	1115	424	0.

1 JAN 0405	50	17.	*	1 JAN 1430	175	288.	*	2 JAN 0055	300	8.	*	2 JAN 1120	425	0.
1 JAN 0410	51	18.	*	1 JAN 1435	176	263.	*	2 JAN 0100	301	7.	*	2 JAN 1125	426	0.
1 JAN 0415	52	18.	*	1 JAN 1440	177	238.	*	2 JAN 0105	302	7.	*	2 JAN 1130	427	0.
1 JAN 0420	53	19.	*	1 JAN 1445	178	214.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	193.	*	2 JAN 0115	304	6.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	179.	*	2 JAN 0120	305	5.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	165.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	20.	*	1 JAN 1505	182	153.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	142.	*	2 JAN 0135	308	4.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	132.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.
1 JAN 0455	60	20.	*	1 JAN 1520	185	124.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	20.	*	1 JAN 1525	186	117.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.
1 JAN 0505	62	21.	*	1 JAN 1530	187	110.	*	2 JAN 0155	312	3.	*	2 JAN 1220	437	0.
1 JAN 0510	63	21.	*	1 JAN 1535	188	104.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.
1 JAN 0515	64	21.	*	1 JAN 1540	189	99.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	21.	*	1 JAN 1545	190	94.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	21.	*	1 JAN 1550	191	89.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	21.	*	1 JAN 1555	192	85.	*	2 JAN 0220	317	3.	*	2 JAN 1245	442	0.
1 JAN 0535	68	21.	*	1 JAN 1600	193	82.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.
1 JAN 0540	69	21.	*	1 JAN 1605	194	78.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	21.	*	1 JAN 1610	195	76.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	22.	*	1 JAN 1615	196	73.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	22.	*	1 JAN 1620	197	71.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	22.	*	1 JAN 1625	198	70.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	22.	*	1 JAN 1630	199	68.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	22.	*	1 JAN 1635	200	67.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	22.	*	1 JAN 1640	201	66.	*	2 JAN 0305	326	1.	*	2 JAN 1330	451	0.
1 JAN 0620	77	23.	*	1 JAN 1645	202	65.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	23.	*	1 JAN 1650	203	63.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	24.	*	1 JAN 1655	204	61.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	24.	*	1 JAN 1700	205	59.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	24.	*	1 JAN 1705	206	57.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	25.	*	1 JAN 1710	207	55.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	25.	*	1 JAN 1715	208	54.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	25.	*	1 JAN 1720	209	52.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	26.	*	1 JAN 1725	210	51.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	26.	*	1 JAN 1730	211	50.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	26.	*	1 JAN 1735	212	49.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	26.	*	1 JAN 1740	213	48.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	26.	*	1 JAN 1745	214	47.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	26.	*	1 JAN 1750	215	47.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	27.	*	1 JAN 1755	216	46.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	27.	*	1 JAN 1800	217	45.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	27.	*	1 JAN 1805	218	44.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	27.	*	1 JAN 1810	219	43.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	27.	*	1 JAN 1815	220	41.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	27.	*	1 JAN 1820	221	40.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	27.	*	1 JAN 1825	222	38.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	27.	*	1 JAN 1830	223	37.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	28.	*	1 JAN 1835	224	35.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	28.	*	1 JAN 1840	225	34.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	28.	*	1 JAN 1845	226	33.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	29.	*	1 JAN 1850	227	32.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	30.	*	1 JAN 1855	228	31.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	30.	*	1 JAN 1900	229	30.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	31.	*	1 JAN 1905	230	29.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	32.	*	1 JAN 1910	231	28.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	33.	*	1 JAN 1915	232	28.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	33.	*	1 JAN 1920	233	27.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	34.	*	1 JAN 1925	234	27.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	34.	*	1 JAN 1930	235	27.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	35.	*	1 JAN 1935	236	27.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	35.	*	1 JAN 1940	237	26.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	36.	*	1 JAN 1945	238	26.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	37.	*	1 JAN 1950	239	26.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	38.	*	1 JAN 1955	240	26.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	38.	*	1 JAN 2000	241	25.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	39.	*	1 JAN 2005	242	25.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	40.	*	1 JAN 2010	243	24.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	40.	*	1 JAN 2015	244	24.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	41.	*	1 JAN 2020	245	23.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	42.	*	1 JAN 2025	246	23.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	43.	*	1 JAN 2030	247	22.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	44.	*	1 JAN 2035	248	22.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	45.	*	1 JAN 2040	249	21.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	46.	*	1 JAN 2045	250	21.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.
			*				*				*			

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 7757.	12.33		1368.	361.	209.	209.
		(INCHES)	1.651	1.742	1.745	1.745
		(AC-FT)	678.	716.	717.	717.

CUMULATIVE AREA = 7.70 SQ MI

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HYDROGRAPH AT C003
TRANSPOSITION AREA 60.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	45.	*	1 JAN 2050	251	19.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	47.	*	1 JAN 2055	252	19.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	50.	*	1 JAN 2100	253	19.	*	2 JAN 0725	378	0.
1 JAN 0015	4	1.	*	1 JAN 1040	129	54.	*	1 JAN 2105	254	18.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	60.	*	1 JAN 2110	255	18.	*	2 JAN 0735	380	0.
1 JAN 0025	6	2.	*	1 JAN 1050	131	67.	*	1 JAN 2115	256	18.	*	2 JAN 0740	381	0.
1 JAN 0030	7	3.	*	1 JAN 1055	132	77.	*	1 JAN 2120	257	18.	*	2 JAN 0745	382	0.

1 JAN 0035	8	4.	*	1 JAN 1100	133	89.	*	1 JAN 2125	258	18.	*	2 JAN 0750	383	0.
1 JAN 0040	9	5.	*	1 JAN 1105	134	103.	*	1 JAN 2130	259	18.	*	2 JAN 0755	384	0.
1 JAN 0045	10	6.	*	1 JAN 1110	135	119.	*	1 JAN 2135	260	18.	*	2 JAN 0800	385	0.
1 JAN 0050	11	6.	*	1 JAN 1115	136	137.	*	1 JAN 2140	261	18.	*	2 JAN 0805	386	0.
1 JAN 0055	12	7.	*	1 JAN 1120	137	158.	*	1 JAN 2145	262	18.	*	2 JAN 0810	387	0.
1 JAN 0100	13	7.	*	1 JAN 1125	138	181.	*	1 JAN 2150	263	17.	*	2 JAN 0815	388	0.
1 JAN 0105	14	8.	*	1 JAN 1130	139	208.	*	1 JAN 2155	264	17.	*	2 JAN 0820	389	0.
1 JAN 0110	15	9.	*	1 JAN 1135	140	273.	*	1 JAN 2200	265	17.	*	2 JAN 0825	390	0.
1 JAN 0115	16	9.	*	1 JAN 1140	141	420.	*	1 JAN 2205	266	17.	*	2 JAN 0830	391	0.
1 JAN 0120	17	10.	*	1 JAN 1145	142	687.	*	1 JAN 2210	267	17.	*	2 JAN 0835	392	0.
1 JAN 0125	18	10.	*	1 JAN 1150	143	1169.	*	1 JAN 2215	268	17.	*	2 JAN 0840	393	0.
1 JAN 0130	19	11.	*	1 JAN 1155	144	1903.	*	1 JAN 2220	269	17.	*	2 JAN 0845	394	0.
1 JAN 0135	20	11.	*	1 JAN 1200	145	2998.	*	1 JAN 2225	270	17.	*	2 JAN 0850	395	0.
1 JAN 0140	21	11.	*	1 JAN 1205	146	4361.	*	1 JAN 2230	271	17.	*	2 JAN 0855	396	0.
1 JAN 0145	22	12.	*	1 JAN 1210	147	5700.	*	1 JAN 2235	272	17.	*	2 JAN 0900	397	0.
1 JAN 0150	23	12.	*	1 JAN 1215	148	6753.	*	1 JAN 2240	273	17.	*	2 JAN 0905	398	0.
1 JAN 0155	24	12.	*	1 JAN 1220	149	7272.	*	1 JAN 2245	274	17.	*	2 JAN 0910	399	0.
1 JAN 0200	25	12.	*	1 JAN 1225	150	7272.	*	1 JAN 2250	275	17.	*	2 JAN 0915	400	0.
1 JAN 0205	26	13.	*	1 JAN 1230	151	6782.	*	1 JAN 2255	276	17.	*	2 JAN 0920	401	0.
1 JAN 0210	27	13.	*	1 JAN 1235	152	6022.	*	1 JAN 2300	277	17.	*	2 JAN 0925	402	0.
1 JAN 0215	28	13.	*	1 JAN 1240	153	5277.	*	1 JAN 2305	278	17.	*	2 JAN 0930	403	0.
1 JAN 0220	29	13.	*	1 JAN 1245	154	4584.	*	1 JAN 2310	279	17.	*	2 JAN 0935	404	0.
1 JAN 0225	30	14.	*	1 JAN 1250	155	3937.	*	1 JAN 2315	280	17.	*	2 JAN 0940	405	0.
1 JAN 0230	31	14.	*	1 JAN 1255	156	3370.	*	1 JAN 2320	281	16.	*	2 JAN 0945	406	0.
1 JAN 0235	32	14.	*	1 JAN 1300	157	2840.	*	1 JAN 2325	282	16.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	2410.	*	1 JAN 2330	283	16.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	2031.	*	1 JAN 2335	284	16.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	1737.	*	1 JAN 2340	285	16.	*	2 JAN 1005	410	0.
1 JAN 0255	36	15.	*	1 JAN 1320	161	1495.	*	1 JAN 2345	286	16.	*	2 JAN 1010	411	0.
1 JAN 0300	37	15.	*	1 JAN 1325	162	1285.	*	1 JAN 2350	287	16.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	1114.	*	1 JAN 2355	288	16.	*	2 JAN 1020	413	0.
1 JAN 0310	39	15.	*	1 JAN 1335	164	961.	*	2 JAN 0000	289	16.	*	2 JAN 1025	414	0.
1 JAN 0315	40	15.	*	1 JAN 1340	165	837.	*	2 JAN 0005	290	16.	*	2 JAN 1030	415	0.
1 JAN 0320	41	15.	*	1 JAN 1345	166	736.	*	2 JAN 0010	291	15.	*	2 JAN 1035	416	0.
1 JAN 0325	42	15.	*	1 JAN 1350	167	646.	*	2 JAN 0015	292	14.	*	2 JAN 1040	417	0.
1 JAN 0330	43	15.	*	1 JAN 1355	168	570.	*	2 JAN 0020	293	13.	*	2 JAN 1045	418	0.
1 JAN 0335	44	15.	*	1 JAN 1400	169	504.	*	2 JAN 0025	294	12.	*	2 JAN 1050	419	0.
1 JAN 0340	45	15.	*	1 JAN 1405	170	444.	*	2 JAN 0030	295	11.	*	2 JAN 1055	420	0.
1 JAN 0345	46	16.	*	1 JAN 1410	171	392.	*	2 JAN 0035	296	10.	*	2 JAN 1100	421	0.
1 JAN 0350	47	16.	*	1 JAN 1415	172	352.	*	2 JAN 0040	297	9.	*	2 JAN 1105	422	0.
1 JAN 0355	48	16.	*	1 JAN 1420	173	320.	*	2 JAN 0045	298	9.	*	2 JAN 1110	423	0.
1 JAN 0400	49	16.	*	1 JAN 1425	174	291.	*	2 JAN 0050	299	8.	*	2 JAN 1115	424	0.
1 JAN 0405	50	17.	*	1 JAN 1430	175	265.	*	2 JAN 0055	300	7.	*	2 JAN 1120	425	0.
1 JAN 0410	51	17.	*	1 JAN 1435	176	241.	*	2 JAN 0100	301	7.	*	2 JAN 1125	426	0.
1 JAN 0415	52	17.	*	1 JAN 1440	177	216.	*	2 JAN 0105	302	6.	*	2 JAN 1130	427	0.
1 JAN 0420	53	18.	*	1 JAN 1445	178	195.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	18.	*	1 JAN 1450	179	176.	*	2 JAN 0115	304	5.	*	2 JAN 1140	429	0.
1 JAN 0430	55	18.	*	1 JAN 1455	180	162.	*	2 JAN 0120	305	5.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	150.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	19.	*	1 JAN 1505	182	138.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.
1 JAN 0445	58	19.	*	1 JAN 1510	183	128.	*	2 JAN 0135	308	4.	*	2 JAN 1200	433	0.
1 JAN 0450	59	19.	*	1 JAN 1515	184	120.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.
1 JAN 0455	60	19.	*	1 JAN 1520	185	112.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	20.	*	1 JAN 1525	186	105.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.
1 JAN 0505	62	20.	*	1 JAN 1530	187	100.	*	2 JAN 0155	312	3.	*	2 JAN 1220	437	0.
1 JAN 0510	63	20.	*	1 JAN 1535	188	94.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.
1 JAN 0515	64	20.	*	1 JAN 1540	189	89.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	20.	*	1 JAN 1545	190	85.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	20.	*	1 JAN 1550	191	80.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	20.	*	1 JAN 1555	192	76.	*	2 JAN 0220	317	2.	*	2 JAN 1245	442	0.
1 JAN 0535	68	20.	*	1 JAN 1600	193	73.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.
1 JAN 0540	69	20.	*	1 JAN 1605	194	70.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	20.	*	1 JAN 1610	195	68.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	21.	*	1 JAN 1615	196	66.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.
1 JAN 0555	72	21.	*	1 JAN 1620	197	64.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.
1 JAN 0600	73	21.	*	1 JAN 1625	198	62.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.
1 JAN 0605	74	21.	*	1 JAN 1630	199	61.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.
1 JAN 0610	75	21.	*	1 JAN 1635	200	60.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.
1 JAN 0615	76	21.	*	1 JAN 1640	201	59.	*	2 JAN 0305	326	1.	*	2 JAN 1330	451	0.
1 JAN 0620	77	22.	*	1 JAN 1645	202	57.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.
1 JAN 0625	78	22.	*	1 JAN 1650	203	56.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.
1 JAN 0630	79	23.	*	1 JAN 1655	204	54.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.
1 JAN 0635	80	23.	*	1 JAN 1700	205	53.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.
1 JAN 0640	81	23.	*	1 JAN 1705	206	51.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.
1 JAN 0645	82	24.	*	1 JAN 1710	207	50.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.
1 JAN 0650	83	24.	*	1 JAN 1715	208	48.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.
1 JAN 0655	84	24.	*	1 JAN 1720	209	47.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.
1 JAN 0700	85	24.	*	1 JAN 1725	210	45.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.
1 JAN 0705	86	25.	*	1 JAN 1730	211	44.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.
1 JAN 0710	87	25.	*	1 JAN 1735	212	43.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.
1 JAN 0715	88	25.	*	1 JAN 1740	213	43.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.
1 JAN 0720	89	25.	*	1 JAN 1745	214	42.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.
1 JAN 0725	90	25.	*	1 JAN 1750	215	41.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	25.	*	1 JAN 1755	216	40.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	26.	*	1 JAN 1800	217	40.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	26.	*	1 JAN 1805	218	39.	*	2 JAN 0430	343	0.	*	2 JAN 1455	468	0.
1 JAN 0745	94	26.	*	1 JAN 1810	219	38.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.
1 JAN 0750	95	26.	*	1 JAN 1815	220	36.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.
1 JAN 0755	96	26.	*	1 JAN 1820	221	35.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.
1 JAN 0800	97	26.	*	1 JAN 1825	222	34.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.
1 JAN 0805	98	26.	*	1 JAN 1830	223	33.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.
1 JAN 0810	99	26.	*	1 JAN 1835	224	32.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.
1 JAN 0815	100	27.	*	1 JAN 1840	225	31.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.
1 JAN 0820	101	27.	*	1 JAN 1845	226	30.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.
1 JAN 0825	102	28.	*	1 JAN 1850	227	29.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.
1 JAN 0830	103	28.	*	1 JAN 1855	228	28.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.
1 JAN 0835	104	29.	*	1 JAN 1900	229	27.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.
1 JAN 0840	105	30.	*	1 JAN 1905	230	27.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.
1 JAN 0845	106	30.	*	1 JAN 1910	231	26.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.
1 JAN 0850	107	31.	*	1 JAN 1915	232	26.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	32.	*	1 JAN 1920	233	25.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	32.	*	1 JAN 1925	234	25.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	33.	*	1 JAN 1930	235	25.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	33.	*	1 JAN 1935	236	24.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	34.	*	1 JAN 1940	237	24.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	35.	*	1 JAN 1945	238	24.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.

1 JAN 0925	114	35.	*	1 JAN 1950	239	24.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	36.	*	1 JAN 1955	240	23.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	37.	*	1 JAN 2000	241	23.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	37.	*	1 JAN 2005	242	22.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	38.	*	1 JAN 2010	243	22.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	39.	*	1 JAN 2015	244	21.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	39.	*	1 JAN 2020	245	21.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	40.	*	1 JAN 2025	246	20.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	41.	*	1 JAN 2030	247	20.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	42.	*	1 JAN 2035	248	20.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	42.	*	1 JAN 2040	249	19.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	44.	*	1 JAN 2045	250	19.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 7272.	12.33		1279.	337.	195.	195.
		(INCHES)	1.543	1.628	1.631	1.631
		(AC-FT)	634.	669.	670.	670.

CUMULATIVE AREA = 7.70 SQ MI

HYDROGRAPH AT C003
TRANSPOSITION AREA 90.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	44.	*	1 JAN 2050	251	19.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	46.	*	1 JAN 2055	252	18.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	48.	*	1 JAN 2100	253	18.	*	2 JAN 0725	378	0.
1 JAN 0015	4	1.	*	1 JAN 1040	129	52.	*	1 JAN 2105	254	18.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	57.	*	1 JAN 2110	255	18.	*	2 JAN 0735	380	0.
1 JAN 0025	6	2.	*	1 JAN 1050	131	64.	*	1 JAN 2115	256	18.	*	2 JAN 0740	381	0.
1 JAN 0030	7	3.	*	1 JAN 1055	132	73.	*	1 JAN 2120	257	18.	*	2 JAN 0745	382	0.
1 JAN 0035	8	4.	*	1 JAN 1100	133	84.	*	1 JAN 2125	258	18.	*	2 JAN 0750	383	0.
1 JAN 0040	9	5.	*	1 JAN 1105	134	98.	*	1 JAN 2130	259	17.	*	2 JAN 0755	384	0.
1 JAN 0045	10	5.	*	1 JAN 1110	135	113.	*	1 JAN 2135	260	17.	*	2 JAN 0800	385	0.
1 JAN 0050	11	6.	*	1 JAN 1115	136	130.	*	1 JAN 2140	261	17.	*	2 JAN 0805	386	0.
1 JAN 0055	12	7.	*	1 JAN 1120	137	150.	*	1 JAN 2145	262	17.	*	2 JAN 0810	387	0.
1 JAN 0100	13	7.	*	1 JAN 1125	138	172.	*	1 JAN 2150	263	17.	*	2 JAN 0815	388	0.
1 JAN 0105	14	8.	*	1 JAN 1130	139	198.	*	1 JAN 2155	264	17.	*	2 JAN 0820	389	0.
1 JAN 0110	15	9.	*	1 JAN 1135	140	260.	*	1 JAN 2200	265	17.	*	2 JAN 0825	390	0.
1 JAN 0115	16	9.	*	1 JAN 1140	141	402.	*	1 JAN 2205	266	17.	*	2 JAN 0830	391	0.
1 JAN 0120	17	10.	*	1 JAN 1145	142	660.	*	1 JAN 2210	267	17.	*	2 JAN 0835	392	0.
1 JAN 0125	18	10.	*	1 JAN 1150	143	1131.	*	1 JAN 2215	268	17.	*	2 JAN 0840	393	0.
1 JAN 0130	19	10.	*	1 JAN 1155	144	1847.	*	1 JAN 2220	269	17.	*	2 JAN 0845	394	0.
1 JAN 0135	20	11.	*	1 JAN 1200	145	2918.	*	1 JAN 2225	270	17.	*	2 JAN 0850	395	0.
1 JAN 0140	21	11.	*	1 JAN 1205	146	4246.	*	1 JAN 2230	271	17.	*	2 JAN 0855	396	0.
1 JAN 0145	22	11.	*	1 JAN 1210	147	5554.	*	1 JAN 2235	272	17.	*	2 JAN 0900	397	0.
1 JAN 0150	23	12.	*	1 JAN 1215	148	6588.	*	1 JAN 2240	273	17.	*	2 JAN 0905	398	0.
1 JAN 0155	24	12.	*	1 JAN 1220	149	7100.	*	1 JAN 2245	274	16.	*	2 JAN 0910	399	0.
1 JAN 0200	25	12.	*	1 JAN 1225	150	7109.	*	1 JAN 2250	275	16.	*	2 JAN 0915	400	0.
1 JAN 0205	26	12.	*	1 JAN 1230	151	6634.	*	1 JAN 2255	276	16.	*	2 JAN 0920	401	0.
1 JAN 0210	27	13.	*	1 JAN 1235	152	5890.	*	1 JAN 2300	277	16.	*	2 JAN 0925	402	0.
1 JAN 0215	28	13.	*	1 JAN 1240	153	5165.	*	1 JAN 2305	278	16.	*	2 JAN 0930	403	0.
1 JAN 0220	29	13.	*	1 JAN 1245	154	4484.	*	1 JAN 2310	279	16.	*	2 JAN 0935	404	0.
1 JAN 0225	30	13.	*	1 JAN 1250	155	3853.	*	1 JAN 2315	280	16.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	3293.	*	1 JAN 2320	281	16.	*	2 JAN 0945	406	0.
1 JAN 0235	32	14.	*	1 JAN 1300	157	2777.	*	1 JAN 2325	282	16.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	2353.	*	1 JAN 2330	283	16.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	1981.	*	1 JAN 2335	284	16.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	1700.	*	1 JAN 2340	285	16.	*	2 JAN 1005	410	0.
1 JAN 0255	36	14.	*	1 JAN 1320	161	1462.	*	1 JAN 2345	286	16.	*	2 JAN 1010	411	0.
1 JAN 0300	37	14.	*	1 JAN 1325	162	1259.	*	1 JAN 2350	287	16.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	1090.	*	1 JAN 2355	288	16.	*	2 JAN 1020	413	0.
1 JAN 0310	39	15.	*	1 JAN 1335	164	939.	*	2 JAN 0000	289	16.	*	2 JAN 1025	414	0.
1 JAN 0315	40	15.	*	1 JAN 1340	165	818.	*	2 JAN 0005	290	15.	*	2 JAN 1030	415	0.
1 JAN 0320	41	15.	*	1 JAN 1345	166	718.	*	2 JAN 0010	291	15.	*	2 JAN 1035	416	0.
1 JAN 0325	42	15.	*	1 JAN 1350	167	630.	*	2 JAN 0015	292	14.	*	2 JAN 1040	417	0.
1 JAN 0330	43	15.	*	1 JAN 1355	168	556.	*	2 JAN 0020	293	13.	*	2 JAN 1045	418	0.
1 JAN 0335	44	15.	*	1 JAN 1400	169	491.	*	2 JAN 0025	294	12.	*	2 JAN 1050	419	0.
1 JAN 0340	45	15.	*	1 JAN 1405	170	432.	*	2 JAN 0030	295	11.	*	2 JAN 1055	420	0.
1 JAN 0345	46	15.	*	1 JAN 1410	171	381.	*	2 JAN 0035	296	10.	*	2 JAN 1100	421	0.
1 JAN 0350	47	15.	*	1 JAN 1415	172	342.	*	2 JAN 0040	297	9.	*	2 JAN 1105	422	0.
1 JAN 0355	48	16.	*	1 JAN 1420	173	311.	*	2 JAN 0045	298	8.	*	2 JAN 1110	423	0.
1 JAN 0400	49	16.	*	1 JAN 1425	174	282.	*	2 JAN 0050	299	8.	*	2 JAN 1115	424	0.
1 JAN 0405	50	16.	*	1 JAN 1430	175	256.	*	2 JAN 0055	300	7.	*	2 JAN 1120	425	0.
1 JAN 0410	51	17.	*	1 JAN 1435	176	233.	*	2 JAN 0100	301	7.	*	2 JAN 1125	426	0.
1 JAN 0415	52	17.	*	1 JAN 1440	177	209.	*	2 JAN 0105	302	6.	*	2 JAN 1130	427	0.
1 JAN 0420	53	17.	*	1 JAN 1445	178	189.	*	2 JAN 0110	303	6.	*	2 JAN 1135	428	0.
1 JAN 0425	54	18.	*	1 JAN 1450	179	171.	*	2 JAN 0115	304	5.	*	2 JAN 1140	429	0.
1 JAN 0430	55	18.	*	1 JAN 1455	180	157.	*	2 JAN 0120	305	5.	*	2 JAN 1145	430	0.
1 JAN 0435	56	18.	*	1 JAN 1500	181	144.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.
1 JAN 0440	57	19.	*	1 JAN 1505	182	133.	*	2 JAN 0130	307	4.	*	2 JAN 1155	432	0.
1 JAN 0445	58	19.	*	1 JAN 1510	183	124.	*	2 JAN 0135	308	4.	*	2 JAN 1200	433	0.
1 JAN 0450	59	19.	*	1 JAN 1515	184	115.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.
1 JAN 0455	60	19.	*	1 JAN 1520	185	108.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.
1 JAN 0500	61	19.	*	1 JAN 1525	186	102.	*	2 JAN 0150	311	3.	*	2 JAN 1215	436	0.
1 JAN 0505	62	19.	*	1 JAN 1530	187	96.	*	2 JAN 0155	312	3.	*	2 JAN 1220	437	0.
1 JAN 0510	63	20.	*	1 JAN 1535	188	91.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.
1 JAN 0515	64	20.	*	1 JAN 1540	189	86.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.
1 JAN 0520	65	20.	*	1 JAN 1545	190	81.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.
1 JAN 0525	66	20.	*	1 JAN 1550	191	77.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.
1 JAN 0530	67	20.	*	1 JAN 1555	192	73.	*	2 JAN 0220	317	2.	*	2 JAN 1245	442	0.
1 JAN 0535	68	20.	*	1 JAN 1600	193	70.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.
1 JAN 0540	69	20.	*	1 JAN 1605	194	67.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.
1 JAN 0545	70	20.	*	1 JAN 1610	195	65.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.
1 JAN 0550	71	20.	*	1 JAN 1615	196	63.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0555	72	20.	1	JAN	1620	197	61.	2	JAN	0245	322	2.	2	JAN	1310	447	0.
1	JAN	0600	73	20.	1	JAN	1625	198	60.	2	JAN	0250	323	2.	2	JAN	1315	448	0.
1	JAN	0605	74	20.	1	JAN	1630	199	58.	2	JAN	0255	324	2.	2	JAN	1320	449	0.
1	JAN	0610	75	21.	1	JAN	1635	200	57.	2	JAN	0300	325	2.	2	JAN	1325	450	0.
1	JAN	0615	76	21.	1	JAN	1640	201	56.	2	JAN	0305	326	1.	2	JAN	1330	451	0.
1	JAN	0620	77	21.	1	JAN	1645	202	55.	2	JAN	0310	327	1.	2	JAN	1335	452	0.
1	JAN	0625	78	22.	1	JAN	1650	203	54.	2	JAN	0315	328	1.	2	JAN	1340	453	0.
1	JAN	0630	79	22.	1	JAN	1655	204	52.	2	JAN	0320	329	1.	2	JAN	1345	454	0.
1	JAN	0635	80	23.	1	JAN	1700	205	51.	2	JAN	0325	330	1.	2	JAN	1350	455	0.
1	JAN	0640	81	23.	1	JAN	1705	206	49.	2	JAN	0330	331	1.	2	JAN	1355	456	0.
1	JAN	0645	82	23.	1	JAN	1710	207	47.	2	JAN	0335	332	1.	2	JAN	1400	457	0.
1	JAN	0650	83	24.	1	JAN	1715	208	46.	2	JAN	0340	333	1.	2	JAN	1405	458	0.
1	JAN	0655	84	24.	1	JAN	1720	209	45.	2	JAN	0345	334	1.	2	JAN	1410	459	0.
1	JAN	0700	85	24.	1	JAN	1725	210	43.	2	JAN	0350	335	1.	2	JAN	1415	460	0.
1	JAN	0705	86	24.	1	JAN	1730	211	42.	2	JAN	0355	336	1.	2	JAN	1420	461	0.
1	JAN	0710	87	24.	1	JAN	1735	212	41.	2	JAN	0400	337	1.	2	JAN	1425	462	0.
1	JAN	0715	88	25.	1	JAN	1740	213	41.	2	JAN	0405	338	1.	2	JAN	1430	463	0.
1	JAN	0720	89	25.	1	JAN	1745	214	40.	2	JAN	0410	339	1.	2	JAN	1435	464	0.
1	JAN	0725	90	25.	1	JAN	1750	215	39.	2	JAN	0415	340	1.	2	JAN	1440	465	0.
1	JAN	0730	91	25.	1	JAN	1755	216	38.	2	JAN	0420	341	1.	2	JAN	1445	466	0.
1	JAN	0735	92	25.	1	JAN	1800	217	38.	2	JAN	0425	342	1.	2	JAN	1450	467	0.
1	JAN	0740	93	25.	1	JAN	1805	218	37.	2	JAN	0430	343	0.	2	JAN	1455	468	0.
1	JAN	0745	94	25.	1	JAN	1810	219	36.	2	JAN	0435	344	0.	2	JAN	1500	469	0.
1	JAN	0750	95	25.	1	JAN	1815	220	35.	2	JAN	0440	345	0.	2	JAN	1505	470	0.
1	JAN	0755	96	25.	1	JAN	1820	221	33.	2	JAN	0445	346	0.	2	JAN	1510	471	0.
1	JAN	0800	97	26.	1	JAN	1825	222	32.	2	JAN	0450	347	0.	2	JAN	1515	472	0.
1	JAN	0805	98	26.	1	JAN	1830	223	31.	2	JAN	0455	348	0.	2	JAN	1520	473	0.
1	JAN	0810	99	26.	1	JAN	1835	224	30.	2	JAN	0500	349	0.	2	JAN	1525	474	0.
1	JAN	0815	100	26.	1	JAN	1840	225	29.	2	JAN	0505	350	0.	2	JAN	1530	475	0.
1	JAN	0820	101	27.	1	JAN	1845	226	29.	2	JAN	0510	351	0.	2	JAN	1535	476	0.
1	JAN	0825	102	27.	1	JAN	1850	227	28.	2	JAN	0515	352	0.	2	JAN	1540	477	0.
1	JAN	0830	103	28.	1	JAN	1855	228	27.	2	JAN	0520	353	0.	2	JAN	1545	478	0.
1	JAN	0835	104	29.	1	JAN	1900	229	27.	2	JAN	0525	354	0.	2	JAN	1550	479	0.
1	JAN	0840	105	29.	1	JAN	1905	230	26.	2	JAN	0530	355	0.	2	JAN	1555	480	0.
1	JAN	0845	106	30.	1	JAN	1910	231	26.	2	JAN	0535	356	0.	2	JAN	1600	481	0.
1	JAN	0850	107	31.	1	JAN	1915	232	25.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	31.	1	JAN	1920	233	25.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	32.	1	JAN	1925	234	24.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	32.	1	JAN	1930	235	24.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	33.	1	JAN	1935	236	24.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	33.	1	JAN	1940	237	24.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	34.	1	JAN	1945	238	23.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	35.	1	JAN	1950	239	23.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	35.	1	JAN	1955	240	23.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	36.	1	JAN	2000	241	22.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	37.	1	JAN	2005	242	22.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	37.	1	JAN	2010	243	21.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	38.	1	JAN	2015	244	21.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	39.	1	JAN	2020	245	20.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	39.	1	JAN	2025	246	20.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	40.	1	JAN	2030	247	20.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	41.	1	JAN	2035	248	19.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	42.	1	JAN	2040	249	19.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	43.	1	JAN	2045	250	19.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
7109.	12.42	1247.	329.	190.	190.
	(INCHES)	1.505	1.589	1.591	1.591
	(AC-FT)	618.	653.	654.	654.

CUMULATIVE AREA = 7.70 SQ MI

INTERPOLATED HYDROGRAPH AT C003

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	56.	1	JAN	2050	251	23.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	61.	1	JAN	2055	252	23.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	67.	1	JAN	2100	253	22.	2	JAN	0725	378	0.
1	JAN	0015	4	1.	1	JAN	1040	129	75.	1	JAN	2105	254	22.	2	JAN	0730	379	0.
1	JAN	0020	5	2.	1	JAN	1045	130	84.	1	JAN	2110	255	21.	2	JAN	0735	380	0.
1	JAN	0025	6	2.	1	JAN	1050	131	96.	1	JAN	2115	256	21.	2	JAN	0740	381	0.
1	JAN	0030	7	3.	1	JAN	1055	132	109.	1	JAN	2120	257	21.	2	JAN	0745	382	0.
1	JAN	0035	8	4.	1	JAN	1100	133	125.	1	JAN	2125	258	21.	2	JAN	0750	383	0.
1	JAN	0040	9	5.	1	JAN	1105	134	143.	1	JAN	2130	259	20.	2	JAN	0755	384	0.
1	JAN	0045	10	6.	1	JAN	1110	135	164.	1	JAN	2135	260	20.	2	JAN	0800	385	0.
1	JAN	0050	11	7.	1	JAN	1115	136	188.	1	JAN	2140	261	20.	2	JAN	0805	386	0.
1	JAN	0055	12	8.	1	JAN	1120	137	215.	1	JAN	2145	262	20.	2	JAN	0810	387	0.
1	JAN	0100	13	8.	1	JAN	1125	138	246.	1	JAN	2150	263	20.	2	JAN	0815	388	0.
1	JAN	0105	14	9.	1	JAN	1130	139	282.	1	JAN	2155	264	19.	2	JAN	0820	389	0.
1	JAN	0110	15	10.	1	JAN	1135	140	362.	1	JAN	2200	265	19.	2	JAN	0825	390	0.
1	JAN	0115	16	10.	1	JAN	1140	141	536.	1	JAN	2205	266	19.	2	JAN	0830	391	0.
1	JAN	0120	17	11.	1	JAN	1145	142	860.	1	JAN	2210	267	19.	2	JAN	0835	392	0.
1	JAN	0125	18	11.	1	JAN	1150	143	1421.	1	JAN	2215	268	19.	2	JAN	0840	393	0.
1	JAN	0130	19	12.	1	JAN	1155	144	2258.	1	JAN	2220	269	19.	2	JAN	0845	394	0.
1	JAN	0135	20	12.	1	JAN	1200	145	3513.	1	JAN	2225	270	19.	2	JAN	0850	395	0.
1	JAN	0140	21	13.	1	JAN	1205	146	5085.	1	JAN	2230	271	19.	2	JAN	0855	396	0.
1	JAN	0145	22	13.	1	JAN	1210	147	6622.	1	JAN	2235	272	19.	2	JAN	0900	397	0.
1	JAN	0150	23	13.	1	JAN	1215	148	7802.	1	JAN	2240	273	19.	2	JAN	0905	398	0.
1	JAN	0155	24	14.	1	JAN	1220	149	8359.	1	JAN	2245	274	19.	2	JAN	0910	399	0.
1	JAN	0200	25	14.	1	JAN	1225	150	8319.	1	JAN	2250	275	19.	2	JAN	0915	400	0.
1	JAN	0205	26	14.	1	JAN	1230	151	7730.	1	JAN	2255	276	18.	2	JAN	0920	401	0.
1	JAN	0210	27	14.	1	JAN	1235	152	6858.	1	JAN	2300	277	18.	2	JAN	0925	402	0.
1	JAN	0215	28	15.	1	JAN	1240	153	6021.	1	JAN	2305	278	18.	2	JAN	0930	403	0.
1	JAN	0220	29	15.	1	JAN	1245	154	5222.	1	JAN	2310	279	18.	2	JAN	0935	404	0.
1	JAN	0225	30	15.	1	JAN	1250	155	4507.	1	JAN	2315	280	18.	2	JAN	0940	405	0.

1 JAN 0230	31	15.	*	1 JAN 1255	156	3856.	*	1 JAN 2320	281	18.	*	2 JAN 0945	406	0.			
1 JAN 0235	32	15.	*	1 JAN 1300	157	3288.	*	1 JAN 2325	282	18.	*	2 JAN 0950	407	0.			
1 JAN 0240	33	16.	*	1 JAN 1305	158	2766.	*	1 JAN 2330	283	18.	*	2 JAN 0955	408	0.			
1 JAN 0245	34	16.	*	1 JAN 1310	159	2345.	*	1 JAN 2335	284	18.	*	2 JAN 1000	409	0.			
1 JAN 0250	35	16.	*	1 JAN 1315	160	1973.	*	1 JAN 2340	285	18.	*	2 JAN 1005	410	0.			
1 JAN 0255	36	16.	*	1 JAN 1320	161	1704.	*	1 JAN 2345	286	18.	*	2 JAN 1010	411	0.			
1 JAN 0300	37	16.	*	1 JAN 1325	162	1464.	*	1 JAN 2350	287	18.	*	2 JAN 1015	412	0.			
1 JAN 0305	38	16.	*	1 JAN 1330	163	1265.	*	1 JAN 2355	288	18.	*	2 JAN 1020	413	0.			
1 JAN 0310	39	17.	*	1 JAN 1335	164	1097.	*	2 JAN 0000	289	18.	*	2 JAN 1025	414	0.			
1 JAN 0315	40	17.	*	1 JAN 1340	165	958.	*	2 JAN 0005	290	17.	*	2 JAN 1030	415	0.			
1 JAN 0320	41	17.	*	1 JAN 1345	166	845.	*	2 JAN 0010	291	17.	*	2 JAN 1035	416	0.			
1 JAN 0325	42	17.	*	1 JAN 1350	167	747.	*	2 JAN 0015	292	16.	*	2 JAN 1040	417	0.			
1 JAN 0330	43	17.	*	1 JAN 1355	168	662.	*	2 JAN 0020	293	14.	*	2 JAN 1045	418	0.			
1 JAN 0335	44	17.	*	1 JAN 1400	169	585.	*	2 JAN 0025	294	13.	*	2 JAN 1050	419	0.			
1 JAN 0340	45	17.	*	1 JAN 1405	170	519.	*	2 JAN 0030	295	12.	*	2 JAN 1055	420	0.			
1 JAN 0345	46	17.	*	1 JAN 1410	171	463.	*	2 JAN 0035	296	11.	*	2 JAN 1100	421	0.			
1 JAN 0350	47	17.	*	1 JAN 1415	172	418.	*	2 JAN 0040	297	10.	*	2 JAN 1105	422	0.			
1 JAN 0355	48	18.	*	1 JAN 1420	173	378.	*	2 JAN 0045	298	9.	*	2 JAN 1110	423	0.			
1 JAN 0400	49	18.	*	1 JAN 1425	174	345.	*	2 JAN 0050	299	9.	*	2 JAN 1115	424	0.			
1 JAN 0405	50	18.	*	1 JAN 1430	175	317.	*	2 JAN 0055	300	8.	*	2 JAN 1120	425	0.			
1 JAN 0410	51	19.	*	1 JAN 1435	176	291.	*	2 JAN 0100	301	8.	*	2 JAN 1125	426	0.			
1 JAN 0415	52	19.	*	1 JAN 1440	177	265.	*	2 JAN 0105	302	7.	*	2 JAN 1130	427	0.			
1 JAN 0420	53	20.	*	1 JAN 1445	178	240.	*	2 JAN 0110	303	7.	*	2 JAN 1135	428	0.			
1 JAN 0425	54	20.	*	1 JAN 1450	179	216.	*	2 JAN 0115	304	6.	*	2 JAN 1140	429	0.			
1 JAN 0430	55	20.	*	1 JAN 1455	180	199.	*	2 JAN 0120	305	6.	*	2 JAN 1145	430	0.			
1 JAN 0435	56	21.	*	1 JAN 1500	181	185.	*	2 JAN 0125	306	5.	*	2 JAN 1150	431	0.			
1 JAN 0440	57	21.	*	1 JAN 1505	182	172.	*	2 JAN 0130	307	5.	*	2 JAN 1155	432	0.			
1 JAN 0445	58	21.	*	1 JAN 1510	183	160.	*	2 JAN 0135	308	5.	*	2 JAN 1200	433	0.			
1 JAN 0450	59	21.	*	1 JAN 1515	184	150.	*	2 JAN 0140	309	4.	*	2 JAN 1205	434	0.			
1 JAN 0455	60	21.	*	1 JAN 1520	185	140.	*	2 JAN 0145	310	4.	*	2 JAN 1210	435	0.			
1 JAN 0500	61	22.	*	1 JAN 1525	186	132.	*	2 JAN 0150	311	4.	*	2 JAN 1215	436	0.			
1 JAN 0505	62	22.	*	1 JAN 1530	187	125.	*	2 JAN 0155	312	4.	*	2 JAN 1220	437	0.			
1 JAN 0510	63	22.	*	1 JAN 1535	188	118.	*	2 JAN 0200	313	3.	*	2 JAN 1225	438	0.			
1 JAN 0515	64	22.	*	1 JAN 1540	189	112.	*	2 JAN 0205	314	3.	*	2 JAN 1230	439	0.			
1 JAN 0520	65	22.	*	1 JAN 1545	190	106.	*	2 JAN 0210	315	3.	*	2 JAN 1235	440	0.			
1 JAN 0525	66	22.	*	1 JAN 1550	191	101.	*	2 JAN 0215	316	3.	*	2 JAN 1240	441	0.			
1 JAN 0530	67	22.	*	1 JAN 1555	192	96.	*	2 JAN 0220	317	3.	*	2 JAN 1245	442	0.			
1 JAN 0535	68	23.	*	1 JAN 1600	193	92.	*	2 JAN 0225	318	2.	*	2 JAN 1250	443	0.			
1 JAN 0540	69	23.	*	1 JAN 1605	194	89.	*	2 JAN 0230	319	2.	*	2 JAN 1255	444	0.			
1 JAN 0545	70	23.	*	1 JAN 1610	195	86.	*	2 JAN 0235	320	2.	*	2 JAN 1300	445	0.			
1 JAN 0550	71	23.	*	1 JAN 1615	196	83.	*	2 JAN 0240	321	2.	*	2 JAN 1305	446	0.			
1 JAN 0555	72	23.	*	1 JAN 1620	197	81.	*	2 JAN 0245	322	2.	*	2 JAN 1310	447	0.			
1 JAN 0600	73	23.	*	1 JAN 1625	198	79.	*	2 JAN 0250	323	2.	*	2 JAN 1315	448	0.			
1 JAN 0605	74	23.	*	1 JAN 1630	199	77.	*	2 JAN 0255	324	2.	*	2 JAN 1320	449	0.			
1 JAN 0610	75	23.	*	1 JAN 1635	200	76.	*	2 JAN 0300	325	2.	*	2 JAN 1325	450	0.			
1 JAN 0615	76	24.	*	1 JAN 1640	201	75.	*	2 JAN 0305	326	2.	*	2 JAN 1330	451	0.			
1 JAN 0620	77	24.	*	1 JAN 1645	202	73.	*	2 JAN 0310	327	1.	*	2 JAN 1335	452	0.			
1 JAN 0625	78	25.	*	1 JAN 1650	203	72.	*	2 JAN 0315	328	1.	*	2 JAN 1340	453	0.			
1 JAN 0630	79	25.	*	1 JAN 1655	204	70.	*	2 JAN 0320	329	1.	*	2 JAN 1345	454	0.			
1 JAN 0635	80	25.	*	1 JAN 1700	205	68.	*	2 JAN 0325	330	1.	*	2 JAN 1350	455	0.			
1 JAN 0640	81	26.	*	1 JAN 1705	206	66.	*	2 JAN 0330	331	1.	*	2 JAN 1355	456	0.			
1 JAN 0645	82	26.	*	1 JAN 1710	207	64.	*	2 JAN 0335	332	1.	*	2 JAN 1400	457	0.			
1 JAN 0650	83	27.	*	1 JAN 1715	208	62.	*	2 JAN 0340	333	1.	*	2 JAN 1405	458	0.			
1 JAN 0655	84	27.	*	1 JAN 1720	209	60.	*	2 JAN 0345	334	1.	*	2 JAN 1410	459	0.			
1 JAN 0700	85	27.	*	1 JAN 1725	210	58.	*	2 JAN 0350	335	1.	*	2 JAN 1415	460	0.			
1 JAN 0705	86	27.	*	1 JAN 1730	211	57.	*	2 JAN 0355	336	1.	*	2 JAN 1420	461	0.			
1 JAN 0710	87	28.	*	1 JAN 1735	212	56.	*	2 JAN 0400	337	1.	*	2 JAN 1425	462	0.			
1 JAN 0715	88	28.	*	1 JAN 1740	213	55.	*	2 JAN 0405	338	1.	*	2 JAN 1430	463	0.			
1 JAN 0720	89	28.	*	1 JAN 1745	214	54.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.			
1 JAN 0725	90	28.	*	1 JAN 1750	215	53.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.			
1 JAN 0730	91	28.	*	1 JAN 1755	216	53.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.			
1 JAN 0735	92	28.	*	1 JAN 1800	217	52.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.			
1 JAN 0740	93	28.	*	1 JAN 1805	218	51.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.			
1 JAN 0745	94	28.	*	1 JAN 1810	219	49.	*	2 JAN 0435	344	0.	*	2 JAN 1500	469	0.			
1 JAN 0750	95	29.	*	1 JAN 1815	220	47.	*	2 JAN 0440	345	0.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	29.	*	1 JAN 1820	221	46.	*	2 JAN 0445	346	0.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	29.	*	1 JAN 1825	222	44.	*	2 JAN 0450	347	0.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	29.	*	1 JAN 1830	223	42.	*	2 JAN 0455	348	0.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	29.	*	1 JAN 1835	224	41.	*	2 JAN 0500	349	0.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	29.	*	1 JAN 1840	225	40.	*	2 JAN 0505	350	0.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	30.	*	1 JAN 1845	226	38.	*	2 JAN 0510	351	0.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	31.	*	1 JAN 1850	227	37.	*	2 JAN 0515	352	0.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	31.	*	1 JAN 1855	228	36.	*	2 JAN 0520	353	0.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	32.	*	1 JAN 1900	229	35.	*	2 JAN 0525	354	0.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	33.	*	1 JAN 1905	230	35.	*	2 JAN 0530	355	0.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	34.	*	1 JAN 1910	231	34.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	34.	*	1 JAN 1915	232	34.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	35.	*	1 JAN 1920	233	33.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	36.	*	1 JAN 1925	234	33.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	36.	*	1 JAN 1930	235	32.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	37.	*	1 JAN 1935	236	32.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	38.	*	1 JAN 1940	237	32.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	38.	*	1 JAN 1945	238	32.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	39.	*	1 JAN 1950	239	32.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	40.	*	1 JAN 1955	240	31.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	40.	*	1 JAN 2000	241	31.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	41.	*	1 JAN 2005	242	30.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	42.	*	1 JAN 2010	243	30.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	43.	*	1 JAN 2015	244	29.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	44.	*	1 JAN 2020	245	28.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	45.	*	1 JAN 2025	246	27.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	46.	*	1 JAN 2030	247	26.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	48.	*	1 JAN 2035	248	25.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	50.	*	1 JAN 2040	249	25.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	53.	*	1 JAN 2045	250	24.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			
			*				*				*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8359.	12.33		1482.	391.	226.	226.
		(INCHES)	1.788	1.889	1.892	1.892
		(AC-FT)	735.	776.	777.	777.

CUMULATIVE AREA = 7.70 SQ MI

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                 *            *
169 KK           *    C007L   *
                 *            *
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170 KO          OUTPUT CONTROL VARIABLES
                        IPRNT           1  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE
                        IPNCH           0  PUNCH COMPUTED HYDROGRAPH
                         IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2         500  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT        .083  TIME INTERVAL IN HOURS


172 HC          HYDROGRAPH COMBINATION
                        ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT C007L
TRANSPOSITION AREA .0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	52.	*	1 JAN 2050	251	33.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	54.	*	1 JAN 2055	252	32.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	57.	*	1 JAN 2100	253	31.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	60.	*	1 JAN 2105	254	30.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	65.	*	1 JAN 2110	255	29.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	70.	*	1 JAN 2115	256	28.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	79.	*	1 JAN 2120	257	28.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	89.	*	1 JAN 2125	258	27.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	99.	*	1 JAN 2130	259	26.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	112.	*	1 JAN 2135	260	26.	*	2 JAN 0800	385	0.
1 JAN 0050	11	1.	*	1 JAN 1115	136	126.	*	1 JAN 2140	261	25.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	145.	*	1 JAN 2145	262	24.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	169.	*	1 JAN 2150	263	24.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	196.	*	1 JAN 2155	264	24.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	243.	*	1 JAN 2200	265	23.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	346.	*	1 JAN 2205	266	23.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	532.	*	1 JAN 2210	267	23.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	852.	*	1 JAN 2215	268	22.	*	2 JAN 0840	393	0.
1 JAN 0130	19	5.	*	1 JAN 1155	144	1419.	*	1 JAN 2220	269	22.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2304.	*	1 JAN 2225	270	22.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	3377.	*	1 JAN 2230	271	22.	*	2 JAN 0855	396	0.
1 JAN 0145	22	8.	*	1 JAN 1210	147	4482.	*	1 JAN 2235	272	21.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	5637.	*	1 JAN 2240	273	21.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	6699.	*	1 JAN 2245	274	21.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	7554.	*	1 JAN 2250	275	21.	*	2 JAN 0915	400	0.
1 JAN 0205	26	10.	*	1 JAN 1230	151	8298.	*	1 JAN 2255	276	21.	*	2 JAN 0920	401	0.
1 JAN 0210	27	11.	*	1 JAN 1235	152	8691.	*	1 JAN 2300	277	21.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	8615.	*	1 JAN 2305	278	21.	*	2 JAN 0930	403	0.
1 JAN 0220	29	12.	*	1 JAN 1245	154	8156.	*	1 JAN 2310	279	21.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	7473.	*	1 JAN 2315	280	21.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	6687.	*	1 JAN 2320	281	21.	*	2 JAN 0945	406	0.
1 JAN 0235	32	13.	*	1 JAN 1300	157	5887.	*	1 JAN 2325	282	21.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	5094.	*	1 JAN 2330	283	21.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	4276.	*	1 JAN 2335	284	21.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3626.	*	1 JAN 2340	285	21.	*	2 JAN 1005	410	0.
1 JAN 0255	36	15.	*	1 JAN 1320	161	3081.	*	1 JAN 2345	286	21.	*	2 JAN 1010	411	0.
1 JAN 0300	37	15.	*	1 JAN 1325	162	2624.	*	1 JAN 2350	287	20.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	2229.	*	1 JAN 2355	288	20.	*	2 JAN 1020	413	0.
1 JAN 0310	39	16.	*	1 JAN 1335	164	1884.	*	2 JAN 0000	289	20.	*	2 JAN 1025	414	0.
1 JAN 0315	40	16.	*	1 JAN 1340	165	1584.	*	2 JAN 0005	290	20.	*	2 JAN 1030	415	0.
1 JAN 0320	41	16.	*	1 JAN 1345	166	1340.	*	2 JAN 0010	291	20.	*	2 JAN 1035	416	0.
1 JAN 0325	42	17.	*	1 JAN 1350	167	1158.	*	2 JAN 0015	292	20.	*	2 JAN 1040	417	0.
1 JAN 0330	43	17.	*	1 JAN 1355	168	1019.	*	2 JAN 0020	293	20.	*	2 JAN 1045	418	0.
1 JAN 0335	44	17.	*	1 JAN 1400	169	907.	*	2 JAN 0025	294	19.	*	2 JAN 1050	419	0.
1 JAN 0340	45	17.	*	1 JAN 1405	170	808.	*	2 JAN 0030	295	19.	*	2 JAN 1055	420	0.
1 JAN 0345	46	17.	*	1 JAN 1410	171	726.	*	2 JAN 0035	296	19.	*	2 JAN 1100	421	0.
1 JAN 0350	47	18.	*	1 JAN 1415	172	650.	*	2 JAN 0040	297	19.	*	2 JAN 1105	422	0.
1 JAN 0355	48	18.	*	1 JAN 1420	173	584.	*	2 JAN 0045	298	18.	*	2 JAN 1110	423	0.
1 JAN 0400	49	18.	*	1 JAN 1425	174	530.	*	2 JAN 0050	299	18.	*	2 JAN 1115	424	0.
1 JAN 0405	50	18.	*	1 JAN 1430	175	481.	*	2 JAN 0055	300	17.	*	2 JAN 1120	425	0.
1 JAN 0410	51	18.	*	1 JAN 1435	176	438.	*	2 JAN 0100	301	17.	*	2 JAN 1125	426	0.
1 JAN 0415	52	19.	*	1 JAN 1440	177	401.	*	2 JAN 0105	302	16.	*	2 JAN 1130	427	0.
1 JAN 0420	53	19.	*	1 JAN 1445	178	370.	*	2 JAN 0110	303	16.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	342.	*	2 JAN 0115	304	15.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	314.	*	2 JAN 0120	305	14.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	288.	*	2 JAN 0125	306	13.	*	2 JAN 1150	431	0.
1 JAN 0440	57	20.	*	1 JAN 1505	182	265.	*	2 JAN 0130	307	13.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	246.	*	2 JAN 0135	308	12.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	229.	*	2 JAN 0140	309	11.	*	2 JAN 1205	434	0.
1 JAN 0455	60	21.	*	1 JAN 1520	185	213.	*	2 JAN 0145	310	11.	*	2 JAN 1210	435	0.
1 JAN 0500	61	21.	*	1 JAN 1525	186	199.	*	2 JAN 0150	311	10.	*	2 JAN 1215	436	0.
1 JAN 0505	62	22.	*	1 JAN 1530	187	186.	*	2 JAN 0155	312	9.	*	2 JAN 1220	437	0.
1 JAN 0510	63	23.	*	1 JAN 1535	188	174.	*	2 JAN 0200	313	9.	*	2 JAN 1225	438	0.
1 JAN 0515	64	23.	*	1 JAN 1540	189	163.	*	2 JAN 0205	314	8.	*	2 JAN 1230	439	0.
1 JAN 0520	65	23.	*	1 JAN 1545	190	154.	*	2 JAN 0210	315	8.	*	2 JAN 1235	440	0.
1 JAN 0525	66	24.	*	1 JAN 1550	191	147.	*	2 JAN 0215	316	7.	*	2 JAN 1240	441	0.

1 JAN 0530	67	24.	*	1 JAN 1555	192	140.	*	2 JAN 0220	317	7.	*	2 JAN 1245	442	0.
1 JAN 0535	68	24.	*	1 JAN 1600	193	134.	*	2 JAN 0225	318	6.	*	2 JAN 1250	443	0.
1 JAN 0540	69	24.	*	1 JAN 1605	194	128.	*	2 JAN 0230	319	6.	*	2 JAN 1255	444	0.
1 JAN 0545	70	24.	*	1 JAN 1610	195	122.	*	2 JAN 0235	320	6.	*	2 JAN 1300	445	0.
1 JAN 0550	71	25.	*	1 JAN 1615	196	117.	*	2 JAN 0240	321	5.	*	2 JAN 1305	446	0.
1 JAN 0555	72	25.	*	1 JAN 1620	197	112.	*	2 JAN 0245	322	5.	*	2 JAN 1310	447	0.
1 JAN 0600	73	25.	*	1 JAN 1625	198	107.	*	2 JAN 0250	323	5.	*	2 JAN 1315	448	0.
1 JAN 0605	74	25.	*	1 JAN 1630	199	103.	*	2 JAN 0255	324	4.	*	2 JAN 1320	449	0.
1 JAN 0610	75	25.	*	1 JAN 1635	200	100.	*	2 JAN 0300	325	4.	*	2 JAN 1325	450	0.
1 JAN 0615	76	25.	*	1 JAN 1640	201	97.	*	2 JAN 0305	326	4.	*	2 JAN 1330	451	0.
1 JAN 0620	77	25.	*	1 JAN 1645	202	94.	*	2 JAN 0310	327	3.	*	2 JAN 1335	452	0.
1 JAN 0625	78	26.	*	1 JAN 1650	203	91.	*	2 JAN 0315	328	3.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	89.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.
1 JAN 0635	80	26.	*	1 JAN 1700	205	87.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.
1 JAN 0640	81	26.	*	1 JAN 1705	206	85.	*	2 JAN 0330	331	3.	*	2 JAN 1355	456	0.
1 JAN 0645	82	27.	*	1 JAN 1710	207	83.	*	2 JAN 0335	332	3.	*	2 JAN 1400	457	0.
1 JAN 0650	83	27.	*	1 JAN 1715	208	81.	*	2 JAN 0340	333	2.	*	2 JAN 1405	458	0.
1 JAN 0655	84	27.	*	1 JAN 1720	209	79.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.
1 JAN 0700	85	28.	*	1 JAN 1725	210	77.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.
1 JAN 0705	86	28.	*	1 JAN 1730	211	75.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.
1 JAN 0710	87	29.	*	1 JAN 1735	212	73.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.
1 JAN 0715	88	29.	*	1 JAN 1740	213	72.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.
1 JAN 0720	89	29.	*	1 JAN 1745	214	70.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.
1 JAN 0725	90	30.	*	1 JAN 1750	215	69.	*	2 JAN 0415	340	2.	*	2 JAN 1440	465	0.
1 JAN 0730	91	30.	*	1 JAN 1755	216	68.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	30.	*	1 JAN 1800	217	67.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	30.	*	1 JAN 1805	218	65.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	31.	*	1 JAN 1810	219	64.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	31.	*	1 JAN 1815	220	63.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.
1 JAN 0755	96	31.	*	1 JAN 1820	221	62.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.
1 JAN 0800	97	31.	*	1 JAN 1825	222	61.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.
1 JAN 0805	98	31.	*	1 JAN 1830	223	60.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.
1 JAN 0810	99	31.	*	1 JAN 1835	224	58.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.
1 JAN 0815	100	32.	*	1 JAN 1840	225	57.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.
1 JAN 0820	101	32.	*	1 JAN 1845	226	55.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.
1 JAN 0825	102	32.	*	1 JAN 1850	227	53.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.
1 JAN 0830	103	32.	*	1 JAN 1855	228	52.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.
1 JAN 0835	104	33.	*	1 JAN 1900	229	50.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.
1 JAN 0840	105	33.	*	1 JAN 1905	230	49.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	33.	*	1 JAN 1910	231	48.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	34.	*	1 JAN 1915	232	46.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	35.	*	1 JAN 1920	233	45.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	35.	*	1 JAN 1925	234	44.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	36.	*	1 JAN 1930	235	43.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	37.	*	1 JAN 1935	236	42.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	37.	*	1 JAN 1940	237	42.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	38.	*	1 JAN 1945	238	41.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	39.	*	1 JAN 1950	239	40.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	40.	*	1 JAN 1955	240	40.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	40.	*	1 JAN 2000	241	40.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	41.	*	1 JAN 2005	242	39.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	42.	*	1 JAN 2010	243	39.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	43.	*	1 JAN 2015	244	38.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	44.	*	1 JAN 2020	245	38.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	44.	*	1 JAN 2025	246	37.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	45.	*	1 JAN 2030	247	37.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	47.	*	1 JAN 2035	248	36.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	48.	*	1 JAN 2040	249	35.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	50.	*	1 JAN 2045	250	34.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8691.	12.58		1755.	463.	267.	267.
		(INCHES)	1.878	1.980	1.983	1.983
		(AC-FT)	870.	918.	919.	919.

CUMULATIVE AREA = 8.69 SQ MI

HYDROGRAPH AT C007L
TRANSPOSITION AREA 1.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	51.	*	1 JAN 2050	251	33.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	53.	*	1 JAN 2055	252	32.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	56.	*	1 JAN 2100	253	31.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	59.	*	1 JAN 2105	254	30.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	63.	*	1 JAN 2110	255	29.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	68.	*	1 JAN 2115	256	28.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	76.	*	1 JAN 2120	257	27.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	86.	*	1 JAN 2125	258	26.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	97.	*	1 JAN 2130	259	26.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	109.	*	1 JAN 2135	260	25.	*	2 JAN 0800	385	0.
1 JAN 0050	11	1.	*	1 JAN 1115	136	123.	*	1 JAN 2140	261	25.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	141.	*	1 JAN 2145	262	24.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	165.	*	1 JAN 2150	263	24.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	192.	*	1 JAN 2155	264	23.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	238.	*	1 JAN 2200	265	23.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	339.	*	1 JAN 2205	266	23.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	522.	*	1 JAN 2210	267	22.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	837.	*	1 JAN 2215	268	22.	*	2 JAN 0840	393	0.
1 JAN 0130	19	5.	*	1 JAN 1155	144	1398.	*	1 JAN 2220	269	22.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2274.	*	1 JAN 2225	270	22.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	3342.	*	1 JAN 2230	271	21.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	4437.	*	1 JAN 2235	272	21.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	5580.	*	1 JAN 2240	273	21.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	6636.	*	1 JAN 2245	274	21.	*	2 JAN 0910	399	0.

1 JAN 0200	25	9.	*	1 JAN 1225	150	7479.	*	1 JAN 2250	275	21.	*	2 JAN 0915	400	0.
1 JAN 0205	26	10.	*	1 JAN 1230	151	8215.	*	1 JAN 2255	276	21.	*	2 JAN 0920	401	0.
1 JAN 0210	27	11.	*	1 JAN 1235	152	8604.	*	1 JAN 2300	277	21.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	8534.	*	1 JAN 2305	278	21.	*	2 JAN 0930	403	0.
1 JAN 0220	29	12.	*	1 JAN 1245	154	8082.	*	1 JAN 2310	279	21.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	7408.	*	1 JAN 2315	280	21.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	6628.	*	1 JAN 2320	281	21.	*	2 JAN 0945	406	0.
1 JAN 0235	32	13.	*	1 JAN 1300	157	5834.	*	1 JAN 2325	282	21.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	5040.	*	1 JAN 2330	283	21.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	4231.	*	1 JAN 2335	284	20.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3591.	*	1 JAN 2340	285	20.	*	2 JAN 1005	410	0.
1 JAN 0255	36	15.	*	1 JAN 1320	161	3051.	*	1 JAN 2345	286	20.	*	2 JAN 1010	411	0.
1 JAN 0300	37	15.	*	1 JAN 1325	162	2598.	*	1 JAN 2350	287	20.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	2207.	*	1 JAN 2355	288	20.	*	2 JAN 1020	413	0.
1 JAN 0310	39	16.	*	1 JAN 1335	164	1864.	*	2 JAN 0000	289	20.	*	2 JAN 1025	414	0.
1 JAN 0315	40	16.	*	1 JAN 1340	165	1566.	*	2 JAN 0005	290	20.	*	2 JAN 1030	415	0.
1 JAN 0320	41	16.	*	1 JAN 1345	166	1327.	*	2 JAN 0010	291	20.	*	2 JAN 1035	416	0.
1 JAN 0325	42	16.	*	1 JAN 1350	167	1147.	*	2 JAN 0015	292	20.	*	2 JAN 1040	417	0.
1 JAN 0330	43	17.	*	1 JAN 1355	168	1010.	*	2 JAN 0020	293	20.	*	2 JAN 1045	418	0.
1 JAN 0335	44	17.	*	1 JAN 1400	169	899.	*	2 JAN 0025	294	19.	*	2 JAN 1050	419	0.
1 JAN 0340	45	17.	*	1 JAN 1405	170	801.	*	2 JAN 0030	295	19.	*	2 JAN 1055	420	0.
1 JAN 0345	46	17.	*	1 JAN 1410	171	719.	*	2 JAN 0035	296	19.	*	2 JAN 1100	421	0.
1 JAN 0350	47	17.	*	1 JAN 1415	172	644.	*	2 JAN 0040	297	18.	*	2 JAN 1105	422	0.
1 JAN 0355	48	18.	*	1 JAN 1420	173	578.	*	2 JAN 0045	298	18.	*	2 JAN 1110	423	0.
1 JAN 0400	49	18.	*	1 JAN 1425	174	525.	*	2 JAN 0050	299	18.	*	2 JAN 1115	424	0.
1 JAN 0405	50	18.	*	1 JAN 1430	175	476.	*	2 JAN 0055	300	17.	*	2 JAN 1120	425	0.
1 JAN 0410	51	18.	*	1 JAN 1435	176	433.	*	2 JAN 0100	301	17.	*	2 JAN 1125	426	0.
1 JAN 0415	52	18.	*	1 JAN 1440	177	396.	*	2 JAN 0105	302	16.	*	2 JAN 1130	427	0.
1 JAN 0420	53	19.	*	1 JAN 1445	178	367.	*	2 JAN 0110	303	15.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	338.	*	2 JAN 0115	304	15.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	311.	*	2 JAN 0120	305	14.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	285.	*	2 JAN 0125	306	13.	*	2 JAN 1150	431	0.
1 JAN 0440	57	19.	*	1 JAN 1505	182	262.	*	2 JAN 0130	307	13.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	243.	*	2 JAN 0135	308	12.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	226.	*	2 JAN 0140	309	11.	*	2 JAN 1205	434	0.
1 JAN 0455	60	20.	*	1 JAN 1520	185	211.	*	2 JAN 0145	310	10.	*	2 JAN 1210	435	0.
1 JAN 0500	61	21.	*	1 JAN 1525	186	196.	*	2 JAN 0150	311	10.	*	2 JAN 1215	436	0.
1 JAN 0505	62	22.	*	1 JAN 1530	187	183.	*	2 JAN 0155	312	9.	*	2 JAN 1220	437	0.
1 JAN 0510	63	22.	*	1 JAN 1535	188	171.	*	2 JAN 0200	313	9.	*	2 JAN 1225	438	0.
1 JAN 0515	64	23.	*	1 JAN 1540	189	161.	*	2 JAN 0205	314	8.	*	2 JAN 1230	439	0.
1 JAN 0520	65	23.	*	1 JAN 1545	190	152.	*	2 JAN 0210	315	8.	*	2 JAN 1235	440	0.
1 JAN 0525	66	23.	*	1 JAN 1550	191	145.	*	2 JAN 0215	316	7.	*	2 JAN 1240	441	0.
1 JAN 0530	67	24.	*	1 JAN 1555	192	138.	*	2 JAN 0220	317	7.	*	2 JAN 1245	442	0.
1 JAN 0535	68	24.	*	1 JAN 1600	193	132.	*	2 JAN 0225	318	6.	*	2 JAN 1250	443	0.
1 JAN 0540	69	24.	*	1 JAN 1605	194	126.	*	2 JAN 0230	319	6.	*	2 JAN 1255	444	0.
1 JAN 0545	70	24.	*	1 JAN 1610	195	120.	*	2 JAN 0235	320	5.	*	2 JAN 1300	445	0.
1 JAN 0550	71	24.	*	1 JAN 1615	196	115.	*	2 JAN 0240	321	5.	*	2 JAN 1305	446	0.
1 JAN 0555	72	25.	*	1 JAN 1620	197	110.	*	2 JAN 0245	322	5.	*	2 JAN 1310	447	0.
1 JAN 0600	73	25.	*	1 JAN 1625	198	105.	*	2 JAN 0250	323	4.	*	2 JAN 1315	448	0.
1 JAN 0605	74	25.	*	1 JAN 1630	199	101.	*	2 JAN 0255	324	4.	*	2 JAN 1320	449	0.
1 JAN 0610	75	25.	*	1 JAN 1635	200	98.	*	2 JAN 0300	325	4.	*	2 JAN 1325	450	0.
1 JAN 0615	76	25.	*	1 JAN 1640	201	95.	*	2 JAN 0305	326	4.	*	2 JAN 1330	451	0.
1 JAN 0620	77	25.	*	1 JAN 1645	202	92.	*	2 JAN 0310	327	3.	*	2 JAN 1335	452	0.
1 JAN 0625	78	25.	*	1 JAN 1650	203	90.	*	2 JAN 0315	328	3.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	88.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.
1 JAN 0635	80	26.	*	1 JAN 1700	205	86.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.
1 JAN 0640	81	26.	*	1 JAN 1705	206	84.	*	2 JAN 0330	331	3.	*	2 JAN 1355	456	0.
1 JAN 0645	82	26.	*	1 JAN 1710	207	82.	*	2 JAN 0335	332	2.	*	2 JAN 1400	457	0.
1 JAN 0650	83	27.	*	1 JAN 1715	208	80.	*	2 JAN 0340	333	2.	*	2 JAN 1405	458	0.
1 JAN 0655	84	27.	*	1 JAN 1720	209	78.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.
1 JAN 0700	85	28.	*	1 JAN 1725	210	76.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.
1 JAN 0705	86	28.	*	1 JAN 1730	211	74.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.
1 JAN 0710	87	28.	*	1 JAN 1735	212	72.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.
1 JAN 0715	88	29.	*	1 JAN 1740	213	71.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.
1 JAN 0720	89	29.	*	1 JAN 1745	214	69.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.
1 JAN 0725	90	29.	*	1 JAN 1750	215	68.	*	2 JAN 0415	340	2.	*	2 JAN 1440	465	0.
1 JAN 0730	91	30.	*	1 JAN 1755	216	67.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	30.	*	1 JAN 1800	217	66.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	30.	*	1 JAN 1805	218	64.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	30.	*	1 JAN 1810	219	63.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	31.	*	1 JAN 1815	220	62.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.
1 JAN 0755	96	31.	*	1 JAN 1820	221	61.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.
1 JAN 0800	97	31.	*	1 JAN 1825	222	60.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.
1 JAN 0805	98	31.	*	1 JAN 1830	223	59.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.
1 JAN 0810	99	31.	*	1 JAN 1835	224	57.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.
1 JAN 0815	100	31.	*	1 JAN 1840	225	56.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.
1 JAN 0820	101	32.	*	1 JAN 1845	226	54.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.
1 JAN 0825	102	32.	*	1 JAN 1850	227	53.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.
1 JAN 0830	103	32.	*	1 JAN 1855	228	51.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.
1 JAN 0835	104	32.	*	1 JAN 1900	229	50.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.
1 JAN 0840	105	33.	*	1 JAN 1905	230	48.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	33.	*	1 JAN 1910	231	47.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	34.	*	1 JAN 1915	232	46.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	34.	*	1 JAN 1920	233	44.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	35.	*	1 JAN 1925	234	43.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	36.	*	1 JAN 1930	235	42.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	36.	*	1 JAN 1935	236	42.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	37.	*	1 JAN 1940	237	41.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	38.	*	1 JAN 1945	238	40.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	39.	*	1 JAN 1950	239	40.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	39.	*	1 JAN 1955	240	39.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	40.	*	1 JAN 2000	241	39.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	41.	*	1 JAN 2005	242	38.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	42.	*	1 JAN 2010	243	38.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	42.	*	1 JAN 2015	244	37.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	43.	*	1 JAN 2020	245	37.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	44.	*	1 JAN 2025	246	37.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	45.	*	1 JAN 2030	247	36.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	46.	*	1 JAN 2035	248	35.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	48.	*	1 JAN 2040	249	34.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	49.	*	1 JAN 2045	250	34.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.
			*				*				*			

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PEAK FLOW TIME MAXIMUM AVERAGE FLOW

6-HR 24-HR 72-HR 41.58-HR

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+   (CFS)        (HR)
                          (CFS)
+    8604.       12.58                1737.        458.        265.        265.
                          (INCHES)     1.859       1.960       1.963       1.963
                          (AC-FT)       861.        908.        910.        910.

                        CUMULATIVE AREA =     8.69 SQ MI
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HYDROGRAPH AT C007L
TRANSPOSITION AREA 5.0 SQ MI

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DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	49.	1 JAN 2050	251	30.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	50.	1 JAN 2055	252	30.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	53.	1 JAN 2100	253	29.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	55.	1 JAN 2105	254	28.	2 JAN 0730	379	0.
1 JAN 0020	5	0.	1 JAN 1045	130	58.	1 JAN 2110	255	27.	2 JAN 0735	380	0.
1 JAN 0025	6	0.	1 JAN 1050	131	63.	1 JAN 2115	256	26.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	69.	1 JAN 2120	257	26.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	77.	1 JAN 2125	258	25.	2 JAN 0750	383	0.
1 JAN 0040	9	1.	1 JAN 1105	134	88.	1 JAN 2130	259	25.	2 JAN 0755	384	0.
1 JAN 0045	10	1.	1 JAN 1110	135	100.	1 JAN 2135	260	24.	2 JAN 0800	385	0.
1 JAN 0050	11	1.	1 JAN 1115	136	114.	1 JAN 2140	261	24.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	130.	1 JAN 2145	262	23.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	150.	1 JAN 2150	263	23.	2 JAN 0815	388	0.
1 JAN 0105	14	3.	1 JAN 1130	139	177.	1 JAN 2155	264	22.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	221.	1 JAN 2200	265	22.	2 JAN 0825	390	0.
1 JAN 0115	16	4.	1 JAN 1140	141	316.	1 JAN 2205	266	22.	2 JAN 0830	391	0.
1 JAN 0120	17	4.	1 JAN 1145	142	488.	1 JAN 2210	267	22.	2 JAN 0835	392	0.
1 JAN 0125	18	5.	1 JAN 1150	143	787.	1 JAN 2215	268	21.	2 JAN 0840	393	0.
1 JAN 0130	19	5.	1 JAN 1155	144	1325.	1 JAN 2220	269	21.	2 JAN 0845	394	0.
1 JAN 0135	20	6.	1 JAN 1200	145	2172.	1 JAN 2225	270	21.	2 JAN 0850	395	0.
1 JAN 0140	21	7.	1 JAN 1205	146	3225.	1 JAN 2230	271	21.	2 JAN 0855	396	0.
1 JAN 0145	22	7.	1 JAN 1210	147	4288.	1 JAN 2235	272	21.	2 JAN 0900	397	0.
1 JAN 0150	23	8.	1 JAN 1215	148	5392.	1 JAN 2240	273	21.	2 JAN 0905	398	0.
1 JAN 0155	24	9.	1 JAN 1220	149	6430.	1 JAN 2245	274	21.	2 JAN 0910	399	0.
1 JAN 0200	25	9.	1 JAN 1225	150	7233.	1 JAN 2250	275	21.	2 JAN 0915	400	0.
1 JAN 0205	26	10.	1 JAN 1230	151	7939.	1 JAN 2255	276	21.	2 JAN 0920	401	0.
1 JAN 0210	27	10.	1 JAN 1235	152	8313.	1 JAN 2300	277	20.	2 JAN 0925	402	0.
1 JAN 0215	28	11.	1 JAN 1240	153	8260.	1 JAN 2305	278	20.	2 JAN 0930	403	0.
1 JAN 0220	29	11.	1 JAN 1245	154	7839.	1 JAN 2310	279	20.	2 JAN 0935	404	0.
1 JAN 0225	30	12.	1 JAN 1250	155	7188.	1 JAN 2315	280	20.	2 JAN 0940	405	0.
1 JAN 0230	31	12.	1 JAN 1255	156	6429.	1 JAN 2320	281	20.	2 JAN 0945	406	0.
1 JAN 0235	32	13.	1 JAN 1300	157	5654.	1 JAN 2325	282	20.	2 JAN 0950	407	0.
1 JAN 0240	33	13.	1 JAN 1305	158	4858.	1 JAN 2330	283	20.	2 JAN 0955	408	0.
1 JAN 0245	34	14.	1 JAN 1310	159	4087.	1 JAN 2335	284	20.	2 JAN 1000	409	0.
1 JAN 0250	35	14.	1 JAN 1315	160	3474.	1 JAN 2340	285	20.	2 JAN 1005	410	0.
1 JAN 0255	36	14.	1 JAN 1320	161	2953.	1 JAN 2345	286	20.	2 JAN 1010	411	0.
1 JAN 0300	37	15.	1 JAN 1325	162	2512.	1 JAN 2350	287	20.	2 JAN 1015	412	0.
1 JAN 0305	38	15.	1 JAN 1330	163	2131.	1 JAN 2355	288	20.	2 JAN 1020	413	0.
1 JAN 0310	39	15.	1 JAN 1335	164	1796.	2 JAN 0000	289	20.	2 JAN 1025	414	0.
1 JAN 0315	40	15.	1 JAN 1340	165	1507.	2 JAN 0005	290	20.	2 JAN 1030	415	0.
1 JAN 0320	41	16.	1 JAN 1345	166	1282.	2 JAN 0010	291	19.	2 JAN 1035	416	0.
1 JAN 0325	42	16.	1 JAN 1350	167	1111.	2 JAN 0015	292	19.	2 JAN 1040	417	0.
1 JAN 0330	43	16.	1 JAN 1355	168	980.	2 JAN 0020	293	19.	2 JAN 1045	418	0.
1 JAN 0335	44	16.	1 JAN 1400	169	871.	2 JAN 0025	294	19.	2 JAN 1050	419	0.
1 JAN 0340	45	17.	1 JAN 1405	170	776.	2 JAN 0030	295	19.	2 JAN 1055	420	0.
1 JAN 0345	46	17.	1 JAN 1410	171	696.	2 JAN 0035	296	18.	2 JAN 1100	421	0.
1 JAN 0350	47	17.	1 JAN 1415	172	623.	2 JAN 0040	297	18.	2 JAN 1105	422	0.
1 JAN 0355	48	17.	1 JAN 1420	173	560.	2 JAN 0045	298	18.	2 JAN 1110	423	0.
1 JAN 0400	49	17.	1 JAN 1425	174	507.	2 JAN 0050	299	17.	2 JAN 1115	424	0.
1 JAN 0405	50	18.	1 JAN 1430	175	459.	2 JAN 0055	300	17.	2 JAN 1120	425	0.
1 JAN 0410	51	18.	1 JAN 1435	176	417.	2 JAN 0100	301	16.	2 JAN 1125	426	0.
1 JAN 0415	52	18.	1 JAN 1440	177	383.	2 JAN 0105	302	16.	2 JAN 1130	427	0.
1 JAN 0420	53	18.	1 JAN 1445	178	354.	2 JAN 0110	303	15.	2 JAN 1135	428	0.
1 JAN 0425	54	18.	1 JAN 1450	179	325.	2 JAN 0115	304	14.	2 JAN 1140	429	0.
1 JAN 0430	55	19.	1 JAN 1455	180	298.	2 JAN 0120	305	14.	2 JAN 1145	430	0.
1 JAN 0435	56	19.	1 JAN 1500	181	273.	2 JAN 0125	306	13.	2 JAN 1150	431	0.
1 JAN 0440	57	19.	1 JAN 1505	182	251.	2 JAN 0130	307	12.	2 JAN 1155	432	0.
1 JAN 0445	58	19.	1 JAN 1510	183	234.	2 JAN 0135	308	12.	2 JAN 1200	433	0.
1 JAN 0450	59	20.	1 JAN 1515	184	217.	2 JAN 0140	309	11.	2 JAN 1205	434	0.
1 JAN 0455	60	20.	1 JAN 1520	185	201.	2 JAN 0145	310	10.	2 JAN 1210	435	0.
1 JAN 0500	61	20.	1 JAN 1525	186	187.	2 JAN 0150	311	10.	2 JAN 1215	436	0.
1 JAN 0505	62	21.	1 JAN 1530	187	175.	2 JAN 0155	312	9.	2 JAN 1220	437	0.
1 JAN 0510	63	21.	1 JAN 1535	188	163.	2 JAN 0200	313	8.	2 JAN 1225	438	0.
1 JAN 0515	64	22.	1 JAN 1540	189	154.	2 JAN 0205	314	8.	2 JAN 1230	439	0.
1 JAN 0520	65	22.	1 JAN 1545	190	145.	2 JAN 0210	315	7.	2 JAN 1235	440	0.
1 JAN 0525	66	23.	1 JAN 1550	191	139.	2 JAN 0215	316	7.	2 JAN 1240	441	0.
1 JAN 0530	67	23.	1 JAN 1555	192	132.	2 JAN 0220	317	7.	2 JAN 1245	442	0.
1 JAN 0535	68	23.	1 JAN 1600	193	126.	2 JAN 0225	318	6.	2 JAN 1250	443	0.
1 JAN 0540	69	23.	1 JAN 1605	194	120.	2 JAN 0230	319	6.	2 JAN 1255	444	0.
1 JAN 0545	70	24.	1 JAN 1610	195	114.	2 JAN 0235	320	5.	2 JAN 1300	445	0.
1 JAN 0550	71	24.	1 JAN 1615	196	109.	2 JAN 0240	321	5.	2 JAN 1305	446	0.
1 JAN 0555	72	24.	1 JAN 1620	197	104.	2 JAN 0245	322	5.	2 JAN 1310	447	0.
1 JAN 0600	73	24.	1 JAN 1625	198	100.	2 JAN 0250	323	4.	2 JAN 1315	448	0.
1 JAN 0605	74	24.	1 JAN 1630	199	96.	2 JAN 0255	324	4.	2 JAN 1320	449	0.
1 JAN 0610	75	24.	1 JAN 1635	200	93.	2 JAN 0300	325	4.	2 JAN 1325	450	0.
1 JAN 0615	76	24.	1 JAN 1640	201	90.	2 JAN 0305	326	4.	2 JAN 1330	451	0.
1 JAN 0620	77	25.	1 JAN 1645	202	87.	2 JAN 0310	327	3.	2 JAN 1335	452	0.
1 JAN 0625	78	25.	1 JAN 1650	203	85.	2 JAN 0315	328	3.	2 JAN 1340	453	0.
1 JAN 0630	79	25.	1 JAN 1655	204	83.	2 JAN 0320	329	3.	2 JAN 1345	454	0.
1 JAN 0635	80	25.	1 JAN 1700	205	81.	2 JAN 0325	330	3.	2 JAN 1350	455	0.
1 JAN 0640	81	26.	1 JAN 1705	206	80.	2 JAN 0330	331	3.	2 JAN 1355	456	0.
1 JAN 0645	82	26.	1 JAN 1710	207	78.	2 JAN 0335	332	2.	2 JAN 1400	457	0.
1 JAN 0650	83	26.	1 JAN 1715	208	76.	2 JAN 0340	333	2.	2 JAN 1405	458	0.
1 JAN 0655	84	27.	1 JAN 1720	209	74.	2 JAN 0345	334	2.	2 JAN 1410	459	0.
1 JAN 0700	85	27.	1 JAN 1725	210	72.	2 JAN 0350	335	2.	2 JAN 1415	460	0.
1 JAN 0705	86	27.	1 JAN 1730	211	70.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	28.	1 JAN 1735	212	69.	2 JAN 0400	337	2.	2 JAN 1425	462	0.
1 JAN 0715	88	28.	1 JAN 1740	213	68.	2 JAN 0405	338	2.	2 JAN 1430	463	0.

1 JAN 0720	89	28.	*	1 JAN 1745	214	66.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.
1 JAN 0725	90	29.	*	1 JAN 1750	215	65.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.
1 JAN 0730	91	29.	*	1 JAN 1755	216	64.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	29.	*	1 JAN 1800	217	62.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	29.	*	1 JAN 1805	218	61.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	30.	*	1 JAN 1810	219	60.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	30.	*	1 JAN 1815	220	59.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.
1 JAN 0755	96	30.	*	1 JAN 1820	221	58.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.
1 JAN 0800	97	30.	*	1 JAN 1825	222	57.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.
1 JAN 0805	98	30.	*	1 JAN 1830	223	55.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.
1 JAN 0810	99	30.	*	1 JAN 1835	224	54.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.
1 JAN 0815	100	31.	*	1 JAN 1840	225	53.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.
1 JAN 0820	101	31.	*	1 JAN 1845	226	51.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.
1 JAN 0825	102	31.	*	1 JAN 1850	227	50.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.
1 JAN 0830	103	31.	*	1 JAN 1855	228	48.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.
1 JAN 0835	104	32.	*	1 JAN 1900	229	47.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.
1 JAN 0840	105	32.	*	1 JAN 1905	230	45.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	32.	*	1 JAN 1910	231	44.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	33.	*	1 JAN 1915	232	43.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	34.	*	1 JAN 1920	233	42.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	34.	*	1 JAN 1925	234	41.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	35.	*	1 JAN 1930	235	40.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	36.	*	1 JAN 1935	236	39.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	36.	*	1 JAN 1940	237	38.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	37.	*	1 JAN 1945	238	38.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	38.	*	1 JAN 1950	239	37.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	38.	*	1 JAN 1955	240	37.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	39.	*	1 JAN 2000	241	36.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	40.	*	1 JAN 2005	242	36.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	41.	*	1 JAN 2010	243	35.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	41.	*	1 JAN 2015	244	35.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	42.	*	1 JAN 2020	245	34.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	43.	*	1 JAN 2025	246	34.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	44.	*	1 JAN 2030	247	33.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	45.	*	1 JAN 2035	248	33.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	46.	*	1 JAN 2040	249	32.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	47.	*	1 JAN 2045	250	31.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.
			*				*				*			

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8313.	12.58		1677.	442.	255.	255.
		(INCHES)	1.795	1.892	1.895	1.895
		(AC-FT)	832.	877.	878.	878.

CUMULATIVE AREA = 8.69 SQ MI

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HYDROGRAPH AT C007L
TRANSPOSITION AREA 10.0 SQ MI

****

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
			*				*				*			
1 JAN 0000	1	0.	*	1 JAN 1025	126	46.	*	1 JAN 2050	251	28.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	48.	*	1 JAN 2055	252	27.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	49.	*	1 JAN 2100	253	27.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	51.	*	1 JAN 2105	254	26.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	54.	*	1 JAN 2110	255	25.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	57.	*	1 JAN 2115	256	25.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	61.	*	1 JAN 2120	257	24.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	67.	*	1 JAN 2125	258	24.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	76.	*	1 JAN 2130	259	23.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	88.	*	1 JAN 2135	260	23.	*	2 JAN 0800	385	0.
1 JAN 0050	11	1.	*	1 JAN 1115	136	102.	*	1 JAN 2140	261	22.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	117.	*	1 JAN 2145	262	22.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	134.	*	1 JAN 2150	263	22.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	157.	*	1 JAN 2155	264	21.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	200.	*	1 JAN 2200	265	21.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	289.	*	1 JAN 2205	266	21.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	449.	*	1 JAN 2210	267	21.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	731.	*	1 JAN 2215	268	21.	*	2 JAN 0840	393	0.
1 JAN 0130	19	5.	*	1 JAN 1155	144	1240.	*	1 JAN 2220	269	21.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2051.	*	1 JAN 2225	270	21.	*	2 JAN 0850	395	0.
1 JAN 0140	21	6.	*	1 JAN 1205	146	3085.	*	1 JAN 2230	271	20.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	4110.	*	1 JAN 2235	272	20.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	5164.	*	1 JAN 2240	273	20.	*	2 JAN 0905	398	0.
1 JAN 0155	24	8.	*	1 JAN 1220	149	6179.	*	1 JAN 2245	274	20.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	6944.	*	1 JAN 2250	275	20.	*	2 JAN 0915	400	0.
1 JAN 0205	26	9.	*	1 JAN 1230	151	7608.	*	1 JAN 2255	276	20.	*	2 JAN 0920	401	0.
1 JAN 0210	27	10.	*	1 JAN 1235	152	7969.	*	1 JAN 2300	277	20.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	7931.	*	1 JAN 2305	278	20.	*	2 JAN 0930	403	0.
1 JAN 0220	29	11.	*	1 JAN 1245	154	7544.	*	1 JAN 2310	279	20.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	6919.	*	1 JAN 2315	280	20.	*	2 JAN 0940	405	0.
1 JAN 0230	31	12.	*	1 JAN 1255	156	6189.	*	1 JAN 2320	281	20.	*	2 JAN 0945	406	0.
1 JAN 0235	32	12.	*	1 JAN 1300	157	5431.	*	1 JAN 2325	282	20.	*	2 JAN 0950	407	0.
1 JAN 0240	33	13.	*	1 JAN 1305	158	4640.	*	1 JAN 2330	283	20.	*	2 JAN 0955	408	0.
1 JAN 0245	34	13.	*	1 JAN 1310	159	3921.	*	1 JAN 2335	284	20.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3338.	*	1 JAN 2340	285	19.	*	2 JAN 1005	410	0.
1 JAN 0255	36	14.	*	1 JAN 1320	161	2838.	*	1 JAN 2345	286	19.	*	2 JAN 1010	411	0.
1 JAN 0300	37	14.	*	1 JAN 1325	162	2411.	*	1 JAN 2350	287	19.	*	2 JAN 1015	412	0.
1 JAN 0305	38	14.	*	1 JAN 1330	163	2040.	*	1 JAN 2355	288	19.	*	2 JAN 1020	413	0.
1 JAN 0310	39	15.	*	1 JAN 1335	164	1718.	*	2 JAN 0000	289	19.	*	2 JAN 1025	414	0.
1 JAN 0315	40	15.	*	1 JAN 1340	165	1438.	*	2 JAN 0005	290	19.	*	2 JAN 1030	415	0.
1 JAN 0320	41	15.	*	1 JAN 1345	166	1230.	*	2 JAN 0010	291	19.	*	2 JAN 1035	416	0.
1 JAN 0325	42	16.	*	1 JAN 1350	167	1068.	*	2 JAN 0015	292	19.	*	2 JAN 1040	417	0.
1 JAN 0330	43	16.	*	1 JAN 1355	168	944.	*	2 JAN 0020	293	18.	*	2 JAN 1045	418	0.
1 JAN 0335	44	16.	*	1 JAN 1400	169	837.	*	2 JAN 0025	294	18.	*	2 JAN 1050	419	0.
1 JAN 0340	45	16.	*	1 JAN 1405	170	748.	*	2 JAN 0030	295	18.	*	2 JAN 1055	420	0.
1 JAN 0345	46	16.	*	1 JAN 1410	171	669.	*	2 JAN 0035	296	18.	*	2 JAN 1100	421	0.

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0350	47	16.	1 JAN 1415	172	598.	2 JAN 0040	297	18.	2 JAN 1105	422	0.
1 JAN 0355	48	17.	1 JAN 1420	173	538.	2 JAN 0045	298	17.	2 JAN 1110	423	0.
1 JAN 0400	49	17.	1 JAN 1425	174	486.	2 JAN 0050	299	17.	2 JAN 1115	424	0.
1 JAN 0405	50	17.	1 JAN 1430	175	439.	2 JAN 0055	300	16.	2 JAN 1120	425	0.
1 JAN 0410	51	17.	1 JAN 1435	176	399.	2 JAN 0100	301	16.	2 JAN 1125	426	0.
1 JAN 0415	52	17.	1 JAN 1440	177	367.	2 JAN 0105	302	15.	2 JAN 1130	427	0.
1 JAN 0420	53	18.	1 JAN 1445	178	338.	2 JAN 0110	303	15.	2 JAN 1135	428	0.
1 JAN 0425	54	18.	1 JAN 1450	179	309.	2 JAN 0115	304	14.	2 JAN 1140	429	0.
1 JAN 0430	55	18.	1 JAN 1455	180	283.	2 JAN 0120	305	13.	2 JAN 1145	430	0.
1 JAN 0435	56	18.	1 JAN 1500	181	259.	2 JAN 0125	306	13.	2 JAN 1150	431	0.
1 JAN 0440	57	18.	1 JAN 1505	182	240.	2 JAN 0130	307	12.	2 JAN 1155	432	0.
1 JAN 0445	58	19.	1 JAN 1510	183	222.	2 JAN 0135	308	11.	2 JAN 1200	433	0.
1 JAN 0450	59	19.	1 JAN 1515	184	205.	2 JAN 0140	309	11.	2 JAN 1205	434	0.
1 JAN 0455	60	19.	1 JAN 1520	185	190.	2 JAN 0145	310	10.	2 JAN 1210	435	0.
1 JAN 0500	61	19.	1 JAN 1525	186	176.	2 JAN 0150	311	9.	2 JAN 1215	436	0.
1 JAN 0505	62	20.	1 JAN 1530	187	164.	2 JAN 0155	312	9.	2 JAN 1220	437	0.
1 JAN 0510	63	20.	1 JAN 1535	188	154.	2 JAN 0200	313	8.	2 JAN 1225	438	0.
1 JAN 0515	64	21.	1 JAN 1540	189	145.	2 JAN 0205	314	8.	2 JAN 1230	439	0.
1 JAN 0520	65	21.	1 JAN 1545	190	138.	2 JAN 0210	315	7.	2 JAN 1235	440	0.
1 JAN 0525	66	22.	1 JAN 1550	191	131.	2 JAN 0215	316	7.	2 JAN 1240	441	0.
1 JAN 0530	67	22.	1 JAN 1555	192	125.	2 JAN 0220	317	6.	2 JAN 1245	442	0.
1 JAN 0535	68	22.	1 JAN 1600	193	118.	2 JAN 0225	318	6.	2 JAN 1250	443	0.
1 JAN 0540	69	23.	1 JAN 1605	194	112.	2 JAN 0230	319	6.	2 JAN 1255	444	0.
1 JAN 0545	70	23.	1 JAN 1610	195	107.	2 JAN 0235	320	5.	2 JAN 1300	445	0.
1 JAN 0550	71	23.	1 JAN 1615	196	102.	2 JAN 0240	321	5.	2 JAN 1305	446	0.
1 JAN 0555	72	23.	1 JAN 1620	197	98.	2 JAN 0245	322	5.	2 JAN 1310	447	0.
1 JAN 0600	73	23.	1 JAN 1625	198	94.	2 JAN 0250	323	4.	2 JAN 1315	448	0.
1 JAN 0605	74	23.	1 JAN 1630	199	90.	2 JAN 0255	324	4.	2 JAN 1320	449	0.
1 JAN 0610	75	24.	1 JAN 1635	200	87.	2 JAN 0300	325	4.	2 JAN 1325	450	0.
1 JAN 0615	76	24.	1 JAN 1640	201	84.	2 JAN 0305	326	3.	2 JAN 1330	451	0.
1 JAN 0620	77	24.	1 JAN 1645	202	82.	2 JAN 0310	327	3.	2 JAN 1335	452	0.
1 JAN 0625	78	24.	1 JAN 1650	203	80.	2 JAN 0315	328	3.	2 JAN 1340	453	0.
1 JAN 0630	79	24.	1 JAN 1655	204	78.	2 JAN 0320	329	3.	2 JAN 1345	454	0.
1 JAN 0635	80	25.	1 JAN 1700	205	76.	2 JAN 0325	330	3.	2 JAN 1350	455	0.
1 JAN 0640	81	25.	1 JAN 1705	206	75.	2 JAN 0330	331	3.	2 JAN 1355	456	0.
1 JAN 0645	82	25.	1 JAN 1710	207	73.	2 JAN 0335	332	2.	2 JAN 1400	457	0.
1 JAN 0650	83	25.	1 JAN 1715	208	71.	2 JAN 0340	333	2.	2 JAN 1405	458	0.
1 JAN 0655	84	26.	1 JAN 1720	209	70.	2 JAN 0345	334	2.	2 JAN 1410	459	0.
1 JAN 0700	85	26.	1 JAN 1725	210	68.	2 JAN 0350	335	2.	2 JAN 1415	460	0.
1 JAN 0705	86	26.	1 JAN 1730	211	67.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	27.	1 JAN 1735	212	66.	2 JAN 0400	337	2.	2 JAN 1425	462	0.
1 JAN 0715	88	27.	1 JAN 1740	213	64.	2 JAN 0405	338	2.	2 JAN 1430	463	0.
1 JAN 0720	89	28.	1 JAN 1745	214	63.	2 JAN 0410	339	2.	2 JAN 1435	464	0.
1 JAN 0725	90	28.	1 JAN 1750	215	61.	2 JAN 0415	340	1.	2 JAN 1440	465	0.
1 JAN 0730	91	28.	1 JAN 1755	216	60.	2 JAN 0420	341	1.	2 JAN 1445	466	0.
1 JAN 0735	92	28.	1 JAN 1800	217	58.	2 JAN 0425	342	1.	2 JAN 1450	467	0.
1 JAN 0740	93	29.	1 JAN 1805	218	57.	2 JAN 0430	343	1.	2 JAN 1455	468	0.
1 JAN 0745	94	29.	1 JAN 1810	219	56.	2 JAN 0435	344	1.	2 JAN 1500	469	0.
1 JAN 0750	95	29.	1 JAN 1815	220	55.	2 JAN 0440	345	1.	2 JAN 1505	470	0.
1 JAN 0755	96	29.	1 JAN 1820	221	54.	2 JAN 0445	346	1.	2 JAN 1510	471	0.
1 JAN 0800	97	29.	1 JAN 1825	222	53.	2 JAN 0450	347	1.	2 JAN 1515	472	0.
1 JAN 0805	98	29.	1 JAN 1830	223	52.	2 JAN 0455	348	1.	2 JAN 1520	473	0.
1 JAN 0810	99	30.	1 JAN 1835	224	50.	2 JAN 0500	349	1.	2 JAN 1525	474	0.
1 JAN 0815	100	30.	1 JAN 1840	225	49.	2 JAN 0505	350	1.	2 JAN 1530	475	0.
1 JAN 0820	101	30.	1 JAN 1845	226	48.	2 JAN 0510	351	1.	2 JAN 1535	476	0.
1 JAN 0825	102	30.	1 JAN 1850	227	46.	2 JAN 0515	352	1.	2 JAN 1540	477	0.
1 JAN 0830	103	30.	1 JAN 1855	228	45.	2 JAN 0520	353	1.	2 JAN 1545	478	0.
1 JAN 0835	104	31.	1 JAN 1900	229	43.	2 JAN 0525	354	1.	2 JAN 1550	479	0.
1 JAN 0840	105	31.	1 JAN 1905	230	42.	2 JAN 0530	355	1.	2 JAN 1555	480	0.
1 JAN 0845	106	31.	1 JAN 1910	231	41.	2 JAN 0535	356	1.	2 JAN 1600	481	0.
1 JAN 0850	107	32.	1 JAN 1915	232	39.	2 JAN 0540	357	0.	2 JAN 1605	482	0.
1 JAN 0855	108	33.	1 JAN 1920	233	38.	2 JAN 0545	358	0.	2 JAN 1610	483	0.
1 JAN 0900	109	33.	1 JAN 1925	234	37.	2 JAN 0550	359	0.	2 JAN 1615	484	0.
1 JAN 0905	110	34.	1 JAN 1930	235	36.	2 JAN 0555	360	0.	2 JAN 1620	485	0.
1 JAN 0910	111	34.	1 JAN 1935	236	36.	2 JAN 0600	361	0.	2 JAN 1625	486	0.
1 JAN 0915	112	35.	1 JAN 1940	237	35.	2 JAN 0605	362	0.	2 JAN 1630	487	0.
1 JAN 0920	113	36.	1 JAN 1945	238	34.	2 JAN 0610	363	0.	2 JAN 1635	488	0.
1 JAN 0925	114	37.	1 JAN 1950	239	34.	2 JAN 0615	364	0.	2 JAN 1640	489	0.
1 JAN 0930	115	37.	1 JAN 1955	240	33.	2 JAN 0620	365	0.	2 JAN 1645	490	0.
1 JAN 0935	116	38.	1 JAN 2000	241	33.	2 JAN 0625	366	0.	2 JAN 1650	491	0.
1 JAN 0940	117	39.	1 JAN 2005	242	32.	2 JAN 0630	367	0.	2 JAN 1655	492	0.
1 JAN 0945	118	39.	1 JAN 2010	243	32.	2 JAN 0635	368	0.	2 JAN 1700	493	0.
1 JAN 0950	119	40.	1 JAN 2015	244	32.	2 JAN 0640	369	0.	2 JAN 1705	494	0.
1 JAN 0955	120	41.	1 JAN 2020	245	31.	2 JAN 0645	370	0.	2 JAN 1710	495	0.
1 JAN 1000	121	42.	1 JAN 2025	246	31.	2 JAN 0650	371	0.	2 JAN 1715	496	0.
1 JAN 1005	122	42.	1 JAN 2030	247	30.	2 JAN 0655	372	0.	2 JAN 1720	497	0.
1 JAN 1010	123	43.	1 JAN 2035	248	30.	2 JAN 0700	373	0.	2 JAN 1725	498	0.
1 JAN 1015	124	44.	1 JAN 2040	249	29.	2 JAN 0705	374	0.	2 JAN 1730	499	0.
1 JAN 1020	125	45.	1 JAN 2045	250	29.	2 JAN 0710	375	0.	2 JAN 1735	500	0.

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 7969.	12.58		1606.	423.	245.	245.
		(INCHES)	1.719	1.811	1.814	1.814
		(AC-FT)	797.	839.	841.	841.

CUMULATIVE AREA = 8.69 SQ MI

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HYDROGRAPH AT C007L
TRANSPOSITION AREA 30.0 SQ MI

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DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	44.	1 JAN 2050	251	24.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	45.	1 JAN 2055	252	24.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	46.	1 JAN 2100	253	23.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	48.	1 JAN 2105	254	23.	2 JAN 0730	379	0.

1 JAN 0020	5	0.	*	1 JAN 1045	130	49.	*	1 JAN 2110	255	23.	*	2 JAN 0735	380	0.			
1 JAN 0025	6	0.	*	1 JAN 1050	131	52.	*	1 JAN 2115	256	22.	*	2 JAN 0740	381	0.			
1 JAN 0030	7	1.	*	1 JAN 1055	132	55.	*	1 JAN 2120	257	22.	*	2 JAN 0745	382	0.			
1 JAN 0035	8	1.	*	1 JAN 1100	133	59.	*	1 JAN 2125	258	21.	*	2 JAN 0750	383	0.			
1 JAN 0040	9	1.	*	1 JAN 1105	134	65.	*	1 JAN 2130	259	21.	*	2 JAN 0755	384	0.			
1 JAN 0045	10	1.	*	1 JAN 1110	135	73.	*	1 JAN 2135	260	21.	*	2 JAN 0800	385	0.			
1 JAN 0050	11	1.	*	1 JAN 1115	136	86.	*	1 JAN 2140	261	21.	*	2 JAN 0805	386	0.			
1 JAN 0055	12	2.	*	1 JAN 1120	137	99.	*	1 JAN 2145	262	21.	*	2 JAN 0810	387	0.			
1 JAN 0100	13	2.	*	1 JAN 1125	138	115.	*	1 JAN 2150	263	21.	*	2 JAN 0815	388	0.			
1 JAN 0105	14	2.	*	1 JAN 1130	139	133.	*	1 JAN 2155	264	20.	*	2 JAN 0820	389	0.			
1 JAN 0110	15	3.	*	1 JAN 1135	140	169.	*	1 JAN 2200	265	20.	*	2 JAN 0825	390	0.			
1 JAN 0115	16	3.	*	1 JAN 1140	141	253.	*	1 JAN 2205	266	20.	*	2 JAN 0830	391	0.			
1 JAN 0120	17	4.	*	1 JAN 1145	142	397.	*	1 JAN 2210	267	20.	*	2 JAN 0835	392	0.			
1 JAN 0125	18	4.	*	1 JAN 1150	143	655.	*	1 JAN 2215	268	20.	*	2 JAN 0840	393	0.			
1 JAN 0130	19	5.	*	1 JAN 1155	144	1121.	*	1 JAN 2220	269	20.	*	2 JAN 0845	394	0.			
1 JAN 0135	20	6.	*	1 JAN 1200	145	1882.	*	1 JAN 2225	270	20.	*	2 JAN 0850	395	0.			
1 JAN 0140	21	6.	*	1 JAN 1205	146	2881.	*	1 JAN 2230	271	20.	*	2 JAN 0855	396	0.			
1 JAN 0145	22	7.	*	1 JAN 1210	147	3863.	*	1 JAN 2235	272	20.	*	2 JAN 0900	397	0.			
1 JAN 0150	23	7.	*	1 JAN 1215	148	4846.	*	1 JAN 2240	273	20.	*	2 JAN 0905	398	0.			
1 JAN 0155	24	8.	*	1 JAN 1220	149	5808.	*	1 JAN 2245	274	19.	*	2 JAN 0910	399	0.			
1 JAN 0200	25	8.	*	1 JAN 1225	150	6554.	*	1 JAN 2250	275	19.	*	2 JAN 0915	400	0.			
1 JAN 0205	26	9.	*	1 JAN 1230	151	7148.	*	1 JAN 2255	276	19.	*	2 JAN 0920	401	0.			
1 JAN 0210	27	10.	*	1 JAN 1235	152	7493.	*	1 JAN 2300	277	19.	*	2 JAN 0925	402	0.			
1 JAN 0215	28	10.	*	1 JAN 1240	153	7468.	*	1 JAN 2305	278	19.	*	2 JAN 0930	403	0.			
1 JAN 0220	29	11.	*	1 JAN 1245	154	7113.	*	1 JAN 2310	279	19.	*	2 JAN 0935	404	0.			
1 JAN 0225	30	11.	*	1 JAN 1250	155	6531.	*	1 JAN 2315	280	19.	*	2 JAN 0940	405	0.			
1 JAN 0230	31	11.	*	1 JAN 1255	156	5846.	*	1 JAN 2320	281	19.	*	2 JAN 0945	406	0.			
1 JAN 0235	32	12.	*	1 JAN 1300	157	5107.	*	1 JAN 2325	282	19.	*	2 JAN 0950	407	0.			
1 JAN 0240	33	12.	*	1 JAN 1305	158	4330.	*	1 JAN 2330	283	19.	*	2 JAN 0955	408	0.			
1 JAN 0245	34	13.	*	1 JAN 1310	159	3690.	*	1 JAN 2335	284	19.	*	2 JAN 1000	409	0.			
1 JAN 0250	35	13.	*	1 JAN 1315	160	3146.	*	1 JAN 2340	285	19.	*	2 JAN 1005	410	0.			
1 JAN 0255	36	13.	*	1 JAN 1320	161	2674.	*	1 JAN 2345	286	19.	*	2 JAN 1010	411	0.			
1 JAN 0300	37	14.	*	1 JAN 1325	162	2271.	*	1 JAN 2350	287	18.	*	2 JAN 1015	412	0.			
1 JAN 0305	38	14.	*	1 JAN 1330	163	1916.	*	1 JAN 2355	288	18.	*	2 JAN 1020	413	0.			
1 JAN 0310	39	14.	*	1 JAN 1335	164	1607.	*	2 JAN 0000	289	18.	*	2 JAN 1025	414	0.			
1 JAN 0315	40	14.	*	1 JAN 1340	165	1352.	*	2 JAN 0005	290	18.	*	2 JAN 1030	415	0.			
1 JAN 0320	41	15.	*	1 JAN 1345	166	1160.	*	2 JAN 0010	291	18.	*	2 JAN 1035	416	0.			
1 JAN 0325	42	15.	*	1 JAN 1350	167	1013.	*	2 JAN 0015	292	18.	*	2 JAN 1040	417	0.			
1 JAN 0330	43	15.	*	1 JAN 1355	168	895.	*	2 JAN 0020	293	18.	*	2 JAN 1045	418	0.			
1 JAN 0335	44	15.	*	1 JAN 1400	169	792.	*	2 JAN 0025	294	17.	*	2 JAN 1050	419	0.			
1 JAN 0340	45	15.	*	1 JAN 1405	170	708.	*	2 JAN 0030	295	17.	*	2 JAN 1055	420	0.			
1 JAN 0345	46	16.	*	1 JAN 1410	171	631.	*	2 JAN 0035	296	17.	*	2 JAN 1100	421	0.			
1 JAN 0350	47	16.	*	1 JAN 1415	172	564.	*	2 JAN 0040	297	17.	*	2 JAN 1105	422	0.			
1 JAN 0355	48	16.	*	1 JAN 1420	173	507.	*	2 JAN 0045	298	16.	*	2 JAN 1110	423	0.			
1 JAN 0400	49	16.	*	1 JAN 1425	174	455.	*	2 JAN 0050	299	16.	*	2 JAN 1115	424	0.			
1 JAN 0405	50	16.	*	1 JAN 1430	175	411.	*	2 JAN 0055	300	16.	*	2 JAN 1120	425	0.			
1 JAN 0410	51	17.	*	1 JAN 1435	176	375.	*	2 JAN 0100	301	15.	*	2 JAN 1125	426	0.			
1 JAN 0415	52	17.	*	1 JAN 1440	177	344.	*	2 JAN 0105	302	15.	*	2 JAN 1130	427	0.			
1 JAN 0420	53	17.	*	1 JAN 1445	178	314.	*	2 JAN 0110	303	14.	*	2 JAN 1135	428	0.			
1 JAN 0425	54	17.	*	1 JAN 1450	179	287.	*	2 JAN 0115	304	13.	*	2 JAN 1140	429	0.			
1 JAN 0430	55	17.	*	1 JAN 1455	180	262.	*	2 JAN 0120	305	13.	*	2 JAN 1145	430	0.			
1 JAN 0435	56	17.	*	1 JAN 1500	181	242.	*	2 JAN 0125	306	12.	*	2 JAN 1150	431	0.			
1 JAN 0440	57	18.	*	1 JAN 1505	182	223.	*	2 JAN 0130	307	11.	*	2 JAN 1155	432	0.			
1 JAN 0445	58	18.	*	1 JAN 1510	183	205.	*	2 JAN 0135	308	11.	*	2 JAN 1200	433	0.			
1 JAN 0450	59	18.	*	1 JAN 1515	184	189.	*	2 JAN 0140	309	10.	*	2 JAN 1205	434	0.			
1 JAN 0455	60	18.	*	1 JAN 1520	185	174.	*	2 JAN 0145	310	10.	*	2 JAN 1210	435	0.			
1 JAN 0500	61	19.	*	1 JAN 1525	186	161.	*	2 JAN 0150	311	9.	*	2 JAN 1215	436	0.			
1 JAN 0505	62	19.	*	1 JAN 1530	187	151.	*	2 JAN 0155	312	8.	*	2 JAN 1220	437	0.			
1 JAN 0510	63	19.	*	1 JAN 1535	188	142.	*	2 JAN 0200	313	8.	*	2 JAN 1225	438	0.			
1 JAN 0515	64	19.	*	1 JAN 1540	189	135.	*	2 JAN 0205	314	7.	*	2 JAN 1230	439	0.			
1 JAN 0520	65	20.	*	1 JAN 1545	190	127.	*	2 JAN 0210	315	7.	*	2 JAN 1235	440	0.			
1 JAN 0525	66	20.	*	1 JAN 1550	191	120.	*	2 JAN 0215	316	6.	*	2 JAN 1240	441	0.			
1 JAN 0530	67	20.	*	1 JAN 1555	192	114.	*	2 JAN 0220	317	6.	*	2 JAN 1245	442	0.			
1 JAN 0535	68	21.	*	1 JAN 1600	193	108.	*	2 JAN 0225	318	6.	*	2 JAN 1250	443	0.			
1 JAN 0540	69	21.	*	1 JAN 1605	194	102.	*	2 JAN 0230	319	5.	*	2 JAN 1255	444	0.			
1 JAN 0545	70	22.	*	1 JAN 1610	195	97.	*	2 JAN 0235	320	5.	*	2 JAN 1300	445	0.			
1 JAN 0550	71	22.	*	1 JAN 1615	196	93.	*	2 JAN 0240	321	5.	*	2 JAN 1305	446	0.			
1 JAN 0555	72	22.	*	1 JAN 1620	197	88.	*	2 JAN 0245	322	4.	*	2 JAN 1310	447	0.			
1 JAN 0600	73	22.	*	1 JAN 1625	198	85.	*	2 JAN 0250	323	4.	*	2 JAN 1315	448	0.			
1 JAN 0605	74	22.	*	1 JAN 1630	199	81.	*	2 JAN 0255	324	4.	*	2 JAN 1320	449	0.			
1 JAN 0610	75	23.	*	1 JAN 1635	200	79.	*	2 JAN 0300	325	4.	*	2 JAN 1325	450	0.			
1 JAN 0615	76	23.	*	1 JAN 1640	201	76.	*	2 JAN 0305	326	3.	*	2 JAN 1330	451	0.			
1 JAN 0620	77	23.	*	1 JAN 1645	202	74.	*	2 JAN 0310	327	3.	*	2 JAN 1335	452	0.			
1 JAN 0625	78	23.	*	1 JAN 1650	203	72.	*	2 JAN 0315	328	3.	*	2 JAN 1340	453	0.			
1 JAN 0630	79	23.	*	1 JAN 1655	204	71.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.			
1 JAN 0635	80	23.	*	1 JAN 1700	205	69.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.			
1 JAN 0640	81	24.	*	1 JAN 1705	206	68.	*	2 JAN 0330	331	2.	*	2 JAN 1355	456	0.			
1 JAN 0645	82	24.	*	1 JAN 1710	207	67.	*	2 JAN 0335	332	2.	*	2 JAN 1400	457	0.			
1 JAN 0650	83	24.	*	1 JAN 1715	208	66.	*	2 JAN 0340	333	2.	*	2 JAN 1405	458	0.			
1 JAN 0655	84	25.	*	1 JAN 1720	209	64.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.			
1 JAN 0700	85	25.	*	1 JAN 1725	210	63.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.			
1 JAN 0705	86	25.	*	1 JAN 1730	211	61.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.			
1 JAN 0710	87	26.	*	1 JAN 1735	212	60.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.			
1 JAN 0715	88	26.	*	1 JAN 1740	213	58.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.			
1 JAN 0720	89	26.	*	1 JAN 1745	214	56.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.			
1 JAN 0725	90	27.	*	1 JAN 1750	215	55.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.			
1 JAN 0730	91	27.	*	1 JAN 1755	216	54.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.			
1 JAN 0735	92	27.	*	1 JAN 1800	217	53.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.			
1 JAN 0740	93	27.	*	1 JAN 1805	218	51.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.			
1 JAN 0745	94	28.	*	1 JAN 1810	219	50.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.			
1 JAN 0750	95	28.	*	1 JAN 1815	220	49.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	28.	*	1 JAN 1820	221	48.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	28.	*	1 JAN 1825	222	47.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	28.	*	1 JAN 1830	223	46.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	28.	*	1 JAN 1835	224	45.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	28.	*	1 JAN 1840	225	44.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	29.	*	1 JAN 1845	226	43.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	29.	*	1 JAN 1850	227	41.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	29.	*	1 JAN 1855	228	40.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	29.	*	1 JAN 1900	229	39.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	30.	*	1 JAN 1905	230	37.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	30.	*	1 JAN 1910	231	36.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	31.	*	1 JAN 1915	232	35.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	31.	*	1 JAN 1920	233	34.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	32.	*	1 JAN 1925	234	33.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	32.	*	1 JAN 1930	235	32.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			

1 JAN	0910	111	33.	1 JAN	1935	236	31.	2 JAN	0600	361	0.	2 JAN	1625	486	0.
1 JAN	0915	112	34.	1 JAN	1940	237	30.	2 JAN	0605	362	0.	2 JAN	1630	487	0.
1 JAN	0920	113	34.	1 JAN	1945	238	30.	2 JAN	0610	363	0.	2 JAN	1635	488	0.
1 JAN	0925	114	35.	1 JAN	1950	239	29.	2 JAN	0615	364	0.	2 JAN	1640	489	0.
1 JAN	0930	115	36.	1 JAN	1955	240	29.	2 JAN	0620	365	0.	2 JAN	1645	490	0.
1 JAN	0935	116	36.	1 JAN	2000	241	28.	2 JAN	0625	366	0.	2 JAN	1650	491	0.
1 JAN	0940	117	37.	1 JAN	2005	242	28.	2 JAN	0630	367	0.	2 JAN	1655	492	0.
1 JAN	0945	118	38.	1 JAN	2010	243	28.	2 JAN	0635	368	0.	2 JAN	1700	493	0.
1 JAN	0950	119	38.	1 JAN	2015	244	27.	2 JAN	0640	369	0.	2 JAN	1705	494	0.
1 JAN	0955	120	39.	1 JAN	2020	245	27.	2 JAN	0645	370	0.	2 JAN	1710	495	0.
1 JAN	1000	121	40.	1 JAN	2025	246	27.	2 JAN	0650	371	0.	2 JAN	1715	496	0.
1 JAN	1005	122	41.	1 JAN	2030	247	26.	2 JAN	0655	372	0.	2 JAN	1720	497	0.
1 JAN	1010	123	41.	1 JAN	2035	248	26.	2 JAN	0700	373	0.	2 JAN	1725	498	0.
1 JAN	1015	124	42.	1 JAN	2040	249	25.	2 JAN	0705	374	0.	2 JAN	1730	499	0.
1 JAN	1020	125	43.	1 JAN	2045	250	25.	2 JAN	0710	375	0.	2 JAN	1735	500	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
		(CFS)				
7493.	12.58		1507.	397.	229.	229.
		(INCHES)	1.613	1.698	1.701	1.701
		(AC-FT)	747.	787.	788.	788.

CUMULATIVE AREA = 8.69 SQ MI

HYDROGRAPH AT C007L
TRANSPOSITION AREA 60.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	42.	1	JAN	2050	251	22.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	43.	1	JAN	2055	252	22.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	44.	1	JAN	2100	253	21.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	45.	1	JAN	2105	254	21.	2	JAN	0730	379	0.
1	JAN	0020	5	0.	1	JAN	1045	130	46.	1	JAN	2110	255	21.	2	JAN	0735	380	0.
1	JAN	0025	6	0.	1	JAN	1050	131	48.	1	JAN	2115	256	21.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	50.	1	JAN	2120	257	20.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	54.	1	JAN	2125	258	20.	2	JAN	0750	383	0.
1	JAN	0040	9	1.	1	JAN	1105	134	58.	1	JAN	2130	259	20.	2	JAN	0755	384	0.
1	JAN	0045	10	1.	1	JAN	1110	135	63.	1	JAN	2135	260	20.	2	JAN	0800	385	0.
1	JAN	0050	11	1.	1	JAN	1115	136	72.	1	JAN	2140	261	20.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	84.	1	JAN	2145	262	20.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	98.	1	JAN	2150	263	20.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	114.	1	JAN	2155	264	20.	2	JAN	0820	389	0.
1	JAN	0110	15	3.	1	JAN	1135	140	145.	1	JAN	2200	265	19.	2	JAN	0825	390	0.
1	JAN	0115	16	3.	1	JAN	1140	141	218.	1	JAN	2205	266	19.	2	JAN	0830	391	0.
1	JAN	0120	17	4.	1	JAN	1145	142	350.	1	JAN	2210	267	19.	2	JAN	0835	392	0.
1	JAN	0125	18	4.	1	JAN	1150	143	581.	1	JAN	2215	268	19.	2	JAN	0840	393	0.
1	JAN	0130	19	5.	1	JAN	1155	144	1008.	1	JAN	2220	269	19.	2	JAN	0845	394	0.
1	JAN	0135	20	5.	1	JAN	1200	145	1713.	1	JAN	2225	270	19.	2	JAN	0850	395	0.
1	JAN	0140	21	6.	1	JAN	1205	146	2667.	1	JAN	2230	271	19.	2	JAN	0855	396	0.
1	JAN	0145	22	6.	1	JAN	1210	147	3615.	1	JAN	2235	272	19.	2	JAN	0900	397	0.
1	JAN	0150	23	7.	1	JAN	1215	148	4525.	1	JAN	2240	273	19.	2	JAN	0905	398	0.
1	JAN	0155	24	8.	1	JAN	1220	149	5432.	1	JAN	2245	274	18.	2	JAN	0910	399	0.
1	JAN	0200	25	8.	1	JAN	1225	150	6167.	1	JAN	2250	275	18.	2	JAN	0915	400	0.
1	JAN	0205	26	9.	1	JAN	1230	151	6693.	1	JAN	2255	276	18.	2	JAN	0920	401	0.
1	JAN	0210	27	9.	1	JAN	1235	152	7018.	1	JAN	2300	277	18.	2	JAN	0925	402	0.
1	JAN	0215	28	10.	1	JAN	1240	153	7005.	1	JAN	2305	278	18.	2	JAN	0930	403	0.
1	JAN	0220	29	10.	1	JAN	1245	154	6682.	1	JAN	2310	279	18.	2	JAN	0935	404	0.
1	JAN	0225	30	11.	1	JAN	1250	155	6147.	1	JAN	2315	280	18.	2	JAN	0940	405	0.
1	JAN	0230	31	11.	1	JAN	1255	156	5495.	1	JAN	2320	281	18.	2	JAN	0945	406	0.
1	JAN	0235	32	11.	1	JAN	1300	157	4755.	1	JAN	2325	282	18.	2	JAN	0950	407	0.
1	JAN	0240	33	12.	1	JAN	1305	158	4049.	1	JAN	2330	283	18.	2	JAN	0955	408	0.
1	JAN	0245	34	12.	1	JAN	1310	159	3464.	1	JAN	2335	284	18.	2	JAN	1000	409	0.
1	JAN	0250	35	12.	1	JAN	1315	160	2956.	1	JAN	2340	285	18.	2	JAN	1005	410	0.
1	JAN	0255	36	13.	1	JAN	1320	161	2510.	1	JAN	2345	286	18.	2	JAN	1010	411	0.
1	JAN	0300	37	13.	1	JAN	1325	162	2128.	1	JAN	2350	287	18.	2	JAN	1015	412	0.
1	JAN	0305	38	13.	1	JAN	1330	163	1791.	1	JAN	2355	288	18.	2	JAN	1020	413	0.
1	JAN	0310	39	13.	1	JAN	1335	164	1498.	2	JAN	0000	289	17.	2	JAN	1025	414	0.
1	JAN	0315	40	14.	1	JAN	1340	165	1270.	2	JAN	0005	290	17.	2	JAN	1030	415	0.
1	JAN	0320	41	14.	1	JAN	1345	166	1095.	2	JAN	0010	291	17.	2	JAN	1035	416	0.
1	JAN	0325	42	14.	1	JAN	1350	167	959.	2	JAN	0015	292	17.	2	JAN	1040	417	0.
1	JAN	0330	43	14.	1	JAN	1355	168	845.	2	JAN	0020	293	17.	2	JAN	1045	418	0.
1	JAN	0335	44	15.	1	JAN	1400	169	749.	2	JAN	0025	294	17.	2	JAN	1050	419	0.
1	JAN	0340	45	15.	1	JAN	1405	170	667.	2	JAN	0030	295	16.	2	JAN	1055	420	0.
1	JAN	0345	46	15.	1	JAN	1410	171	593.	2	JAN	0035	296	16.	2	JAN	1100	421	0.
1	JAN	0350	47	15.	1	JAN	1415	172	531.	2	JAN	0040	297	16.	2	JAN	1105	422	0.
1	JAN	0355	48	15.	1	JAN	1420	173	475.	2	JAN	0045	298	16.	2	JAN	1110	423	0.
1	JAN	0400	49	15.	1	JAN	1425	174	425.	2	JAN	0050	299	15.	2	JAN	1115	424	0.
1	JAN	0405	50	16.	1	JAN	1430	175	384.	2	JAN	0055	300	15.	2	JAN	1120	425	0.
1	JAN	0410	51	16.	1	JAN	1435	176	351.	2	JAN	0100	301	14.	2	JAN	1125	426	0.
1	JAN	0415	52	16.	1	JAN	1440	177	320.	2	JAN	0105	302	14.	2	JAN	1130	427	0.
1	JAN	0420	53	16.	1	JAN	1445	178	291.	2	JAN	0110	303	13.	2	JAN	1135	428	0.
1	JAN	0425	54	16.	1	JAN	1450	179	265.	2	JAN	0115	304	13.	2	JAN	1140	429	0.
1	JAN	0430	55	16.	1	JAN	1455	180	244.	2	JAN	0120	305	12.	2	JAN	1145	430	0.
1	JAN	0435	56	17.	1	JAN	1500	181	224.	2	JAN	0125	306	11.	2	JAN	1150	431	0.
1	JAN	0440	57	17.	1	JAN	1505	182	205.	2	JAN	0130	307	11.	2	JAN	1155	432	0.
1	JAN	0445	58	17.	1	JAN	1510	183	188.	2	JAN	0135	308	10.	2	JAN	1200	433	0.
1	JAN	0450	59	17.	1	JAN	1515	184	172.	2	JAN	0140	309	10.	2	JAN	1205	434	0.
1	JAN	0455	60	18.	1	JAN	1520	185	159.	2	JAN	0145	310	9.	2	JAN	1210	435	0.
1	JAN	0500	61	18.	1	JAN	1525	186	148.	2	JAN	0150	311	9.	2	JAN	1215	436	0.
1	JAN	0505	62	18.	1	JAN	1530	187	139.	2	JAN	0155	312	8.	2	JAN	1220	437	0.
1	JAN	0510	63	18.	1	JAN	1535	188	131.	2	JAN	0200	313	7.	2	JAN	1225	438	0.
1	JAN	0515	64	19.	1	JAN	1540	189	123.	2	JAN	0205	314	7.	2	JAN	1230	439	0.
1	JAN	0520	65	19.	1	JAN	1545	190	116.	2	JAN	0210	315	7.	2	JAN	1235	440	0.
1	JAN	0525	66	19.	1	JAN	1550	191	109.	2	JAN	0215	316	6.	2	JAN	1240	441	0.
1	JAN	0530	67	19.	1	JAN	1555	192	103.	2	JAN	0220	317	6.	2	JAN	1245	442	0.
1	JAN	0535	68	19.	1	JAN	1600	193	97.	2	JAN	0225	318	5.	2	JAN	1250	443	0.

1 JAN 0540	69	20.	*	1 JAN 1605	194	92.	*	2 JAN 0230	319	5.	*	2 JAN 1255	444	0.			
1 JAN 0545	70	20.	*	1 JAN 1610	195	88.	*	2 JAN 0235	320	5.	*	2 JAN 1300	445	0.			
1 JAN 0550	71	20.	*	1 JAN 1615	196	83.	*	2 JAN 0240	321	4.	*	2 JAN 1305	446	0.			
1 JAN 0555	72	20.	*	1 JAN 1620	197	80.	*	2 JAN 0245	322	4.	*	2 JAN 1310	447	0.			
1 JAN 0600	73	21.	*	1 JAN 1625	198	76.	*	2 JAN 0250	323	4.	*	2 JAN 1315	448	0.			
1 JAN 0605	74	21.	*	1 JAN 1630	199	73.	*	2 JAN 0255	324	4.	*	2 JAN 1320	449	0.			
1 JAN 0610	75	21.	*	1 JAN 1635	200	71.	*	2 JAN 0300	325	3.	*	2 JAN 1325	450	0.			
1 JAN 0615	76	21.	*	1 JAN 1640	201	69.	*	2 JAN 0305	326	3.	*	2 JAN 1330	451	0.			
1 JAN 0620	77	22.	*	1 JAN 1645	202	68.	*	2 JAN 0310	327	3.	*	2 JAN 1335	452	0.			
1 JAN 0625	78	22.	*	1 JAN 1650	203	66.	*	2 JAN 0315	328	3.	*	2 JAN 1340	453	0.			
1 JAN 0630	79	22.	*	1 JAN 1655	204	65.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.			
1 JAN 0635	80	22.	*	1 JAN 1700	205	63.	*	2 JAN 0325	330	2.	*	2 JAN 1350	455	0.			
1 JAN 0640	81	23.	*	1 JAN 1705	206	62.	*	2 JAN 0330	331	2.	*	2 JAN 1355	456	0.			
1 JAN 0645	82	23.	*	1 JAN 1710	207	61.	*	2 JAN 0335	332	2.	*	2 JAN 1400	457	0.			
1 JAN 0650	83	23.	*	1 JAN 1715	208	59.	*	2 JAN 0340	333	2.	*	2 JAN 1405	458	0.			
1 JAN 0655	84	23.	*	1 JAN 1720	209	58.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.			
1 JAN 0700	85	24.	*	1 JAN 1725	210	56.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.			
1 JAN 0705	86	24.	*	1 JAN 1730	211	55.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.			
1 JAN 0710	87	24.	*	1 JAN 1735	212	53.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.			
1 JAN 0715	88	25.	*	1 JAN 1740	213	52.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.			
1 JAN 0720	89	25.	*	1 JAN 1745	214	50.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.			
1 JAN 0725	90	25.	*	1 JAN 1750	215	49.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.			
1 JAN 0730	91	26.	*	1 JAN 1755	216	48.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.			
1 JAN 0735	92	26.	*	1 JAN 1800	217	47.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.			
1 JAN 0740	93	26.	*	1 JAN 1805	218	46.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.			
1 JAN 0745	94	26.	*	1 JAN 1810	219	45.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.			
1 JAN 0750	95	26.	*	1 JAN 1815	220	44.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	27.	*	1 JAN 1820	221	43.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	27.	*	1 JAN 1825	222	42.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	27.	*	1 JAN 1830	223	41.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	27.	*	1 JAN 1835	224	40.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	27.	*	1 JAN 1840	225	39.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	27.	*	1 JAN 1845	226	38.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	27.	*	1 JAN 1850	227	37.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	28.	*	1 JAN 1855	228	36.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	28.	*	1 JAN 1900	229	34.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	28.	*	1 JAN 1905	230	33.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	29.	*	1 JAN 1910	231	32.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	29.	*	1 JAN 1915	232	32.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	30.	*	1 JAN 1920	233	31.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	30.	*	1 JAN 1925	234	30.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	31.	*	1 JAN 1930	235	29.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	32.	*	1 JAN 1935	236	29.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	32.	*	1 JAN 1940	237	28.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	33.	*	1 JAN 1945	238	27.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	33.	*	1 JAN 1950	239	27.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	34.	*	1 JAN 1955	240	27.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	35.	*	1 JAN 2000	241	26.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	35.	*	1 JAN 2005	242	26.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	36.	*	1 JAN 2010	243	25.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	37.	*	1 JAN 2015	244	25.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	37.	*	1 JAN 2020	245	25.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	38.	*	1 JAN 2025	246	24.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	39.	*	1 JAN 2030	247	24.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	40.	*	1 JAN 2035	248	23.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	40.	*	1 JAN 2040	249	23.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	41.	*	1 JAN 2045	250	22.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 7018.	12.58		1408.	371.	214.	214.
		(INCHES)	1.507	1.587	1.589	1.589
		(AC-FT)	698.	735.	736.	736.

CUMULATIVE AREA = 8.69 SQ MI

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HYDROGRAPH AT C007L
TRANSPOSITION AREA 90.0 SQ MI

****

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	41.	*	1 JAN 2050	251	22.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	42.	*	1 JAN 2055	252	21.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	43.	*	1 JAN 2100	253	21.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	44.	*	1 JAN 2105	254	21.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	45.	*	1 JAN 2110	255	21.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	47.	*	1 JAN 2115	256	20.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	49.	*	1 JAN 2120	257	20.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	52.	*	1 JAN 2125	258	20.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	56.	*	1 JAN 2130	259	20.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	61.	*	1 JAN 2135	260	20.	*	2 JAN 0800	385	0.
1 JAN 0050	11	1.	*	1 JAN 1115	136	68.	*	1 JAN 2140	261	20.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	79.	*	1 JAN 2145	262	20.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	93.	*	1 JAN 2150	263	19.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	108.	*	1 JAN 2155	264	19.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	137.	*	1 JAN 2200	265	19.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	206.	*	1 JAN 2205	266	19.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	334.	*	1 JAN 2210	267	19.	*	2 JAN 0835	392	0.
1 JAN 0125	18	4.	*	1 JAN 1150	143	555.	*	1 JAN 2215	268	19.	*	2 JAN 0840	393	0.
1 JAN 0130	19	5.	*	1 JAN 1155	144	968.	*	1 JAN 2220	269	19.	*	2 JAN 0845	394	0.
1 JAN 0135	20	5.	*	1 JAN 1200	145	1652.	*	1 JAN 2225	270	19.	*	2 JAN 0850	395	0.
1 JAN 0140	21	6.	*	1 JAN 1205	146	2590.	*	1 JAN 2230	271	18.	*	2 JAN 0855	396	0.
1 JAN 0145	22	6.	*	1 JAN 1210	147	3527.	*	1 JAN 2235	272	18.	*	2 JAN 0900	397	0.
1 JAN 0150	23	7.	*	1 JAN 1215	148	4411.	*	1 JAN 2240	273	18.	*	2 JAN 0905	398	0.
1 JAN 0155	24	7.	*	1 JAN 1220	149	5296.	*	1 JAN 2245	274	18.	*	2 JAN 0910	399	0.
1 JAN 0200	25	8.	*	1 JAN 1225	150	6029.	*	1 JAN 2250	275	18.	*	2 JAN 0915	400	0.
1 JAN 0205	26	8.	*	1 JAN 1230	151	6535.	*	1 JAN 2255	276	18.	*	2 JAN 0920	401	0.

1 JAN 0210	27	9.	*	1 JAN 1235	152	6848.	*	1 JAN 2300	277	18.	*	2 JAN 0925	402	0.				
1 JAN 0215	28	9.	*	1 JAN 1240	153	6841.	*	1 JAN 2305	278	18.	*	2 JAN 0930	403	0.				
1 JAN 0220	29	10.	*	1 JAN 1245	154	6531.	*	1 JAN 2310	279	18.	*	2 JAN 0935	404	0.				
1 JAN 0225	30	10.	*	1 JAN 1250	155	6012.	*	1 JAN 2315	280	18.	*	2 JAN 0940	405	0.				
1 JAN 0230	31	11.	*	1 JAN 1255	156	5367.	*	1 JAN 2320	281	18.	*	2 JAN 0945	406	0.				
1 JAN 0235	32	11.	*	1 JAN 1300	157	4632.	*	1 JAN 2325	282	18.	*	2 JAN 0950	407	0.				
1 JAN 0240	33	11.	*	1 JAN 1305	158	3957.	*	1 JAN 2330	283	18.	*	2 JAN 0955	408	0.				
1 JAN 0245	34	12.	*	1 JAN 1310	159	3387.	*	1 JAN 2335	284	17.	*	2 JAN 1000	409	0.				
1 JAN 0250	35	12.	*	1 JAN 1315	160	2891.	*	1 JAN 2340	285	17.	*	2 JAN 1005	410	0.				
1 JAN 0255	36	12.	*	1 JAN 1320	161	2452.	*	1 JAN 2345	286	17.	*	2 JAN 1010	411	0.				
1 JAN 0300	37	13.	*	1 JAN 1325	162	2077.	*	1 JAN 2350	287	17.	*	2 JAN 1015	412	0.				
1 JAN 0305	38	13.	*	1 JAN 1330	163	1747.	*	1 JAN 2355	288	17.	*	2 JAN 1020	413	0.				
1 JAN 0310	39	13.	*	1 JAN 1335	164	1460.	*	2 JAN 0000	289	17.	*	2 JAN 1025	414	0.				
1 JAN 0315	40	13.	*	1 JAN 1340	165	1241.	*	2 JAN 0005	290	17.	*	2 JAN 1030	415	0.				
1 JAN 0320	41	14.	*	1 JAN 1345	166	1071.	*	2 JAN 0010	291	17.	*	2 JAN 1035	416	0.				
1 JAN 0325	42	14.	*	1 JAN 1350	167	940.	*	2 JAN 0015	292	17.	*	2 JAN 1040	417	0.				
1 JAN 0330	43	14.	*	1 JAN 1355	168	827.	*	2 JAN 0020	293	17.	*	2 JAN 1045	418	0.				
1 JAN 0335	44	14.	*	1 JAN 1400	169	734.	*	2 JAN 0025	294	16.	*	2 JAN 1050	419	0.				
1 JAN 0340	45	14.	*	1 JAN 1405	170	652.	*	2 JAN 0030	295	16.	*	2 JAN 1055	420	0.				
1 JAN 0345	46	15.	*	1 JAN 1410	171	580.	*	2 JAN 0035	296	16.	*	2 JAN 1100	421	0.				
1 JAN 0350	47	15.	*	1 JAN 1415	172	519.	*	2 JAN 0040	297	16.	*	2 JAN 1105	422	0.				
1 JAN 0355	48	15.	*	1 JAN 1420	173	464.	*	2 JAN 0045	298	15.	*	2 JAN 1110	423	0.				
1 JAN 0400	49	15.	*	1 JAN 1425	174	415.	*	2 JAN 0050	299	15.	*	2 JAN 1115	424	0.				
1 JAN 0405	50	15.	*	1 JAN 1430	175	376.	*	2 JAN 0055	300	15.	*	2 JAN 1120	425	0.				
1 JAN 0410	51	16.	*	1 JAN 1435	176	342.	*	2 JAN 0100	301	14.	*	2 JAN 1125	426	0.				
1 JAN 0415	52	16.	*	1 JAN 1440	177	311.	*	2 JAN 0105	302	14.	*	2 JAN 1130	427	0.				
1 JAN 0420	53	16.	*	1 JAN 1445	178	282.	*	2 JAN 0110	303	13.	*	2 JAN 1135	428	0.				
1 JAN 0425	54	16.	*	1 JAN 1450	179	258.	*	2 JAN 0115	304	13.	*	2 JAN 1140	429	0.				
1 JAN 0430	55	16.	*	1 JAN 1455	180	237.	*	2 JAN 0120	305	12.	*	2 JAN 1145	430	0.				
1 JAN 0435	56	16.	*	1 JAN 1500	181	218.	*	2 JAN 0125	306	11.	*	2 JAN 1150	431	0.				
1 JAN 0440	57	17.	*	1 JAN 1505	182	199.	*	2 JAN 0130	307	11.	*	2 JAN 1155	432	0.				
1 JAN 0445	58	17.	*	1 JAN 1510	183	182.	*	2 JAN 0135	308	10.	*	2 JAN 1200	433	0.				
1 JAN 0450	59	17.	*	1 JAN 1515	184	167.	*	2 JAN 0140	309	10.	*	2 JAN 1205	434	0.				
1 JAN 0455	60	17.	*	1 JAN 1520	185	154.	*	2 JAN 0145	310	9.	*	2 JAN 1210	435	0.				
1 JAN 0500	61	17.	*	1 JAN 1525	186	144.	*	2 JAN 0150	311	8.	*	2 JAN 1215	436	0.				
1 JAN 0505	62	18.	*	1 JAN 1530	187	135.	*	2 JAN 0155	312	8.	*	2 JAN 1220	437	0.				
1 JAN 0510	63	18.	*	1 JAN 1535	188	127.	*	2 JAN 0200	313	7.	*	2 JAN 1225	438	0.				
1 JAN 0515	64	18.	*	1 JAN 1540	189	119.	*	2 JAN 0205	314	7.	*	2 JAN 1230	439	0.				
1 JAN 0520	65	18.	*	1 JAN 1545	190	112.	*	2 JAN 0210	315	6.	*	2 JAN 1235	440	0.				
1 JAN 0525	66	19.	*	1 JAN 1550	191	105.	*	2 JAN 0215	316	6.	*	2 JAN 1240	441	0.				
1 JAN 0530	67	19.	*	1 JAN 1555	192	99.	*	2 JAN 0220	317	6.	*	2 JAN 1245	442	0.				
1 JAN 0535	68	19.	*	1 JAN 1600	193	94.	*	2 JAN 0225	318	5.	*	2 JAN 1250	443	0.				
1 JAN 0540	69	19.	*	1 JAN 1605	194	89.	*	2 JAN 0230	319	5.	*	2 JAN 1255	444	0.				
1 JAN 0545	70	20.	*	1 JAN 1610	195	84.	*	2 JAN 0235	320	5.	*	2 JAN 1300	445	0.				
1 JAN 0550	71	20.	*	1 JAN 1615	196	80.	*	2 JAN 0240	321	4.	*	2 JAN 1305	446	0.				
1 JAN 0555	72	20.	*	1 JAN 1620	197	76.	*	2 JAN 0245	322	4.	*	2 JAN 1310	447	0.				
1 JAN 0600	73	20.	*	1 JAN 1625	198	73.	*	2 JAN 0250	323	4.	*	2 JAN 1315	448	0.				
1 JAN 0605	74	20.	*	1 JAN 1630	199	71.	*	2 JAN 0255	324	4.	*	2 JAN 1320	449	0.				
1 JAN 0610	75	20.	*	1 JAN 1635	200	69.	*	2 JAN 0300	325	3.	*	2 JAN 1325	450	0.				
1 JAN 0615	76	21.	*	1 JAN 1640	201	67.	*	2 JAN 0305	326	3.	*	2 JAN 1330	451	0.				
1 JAN 0620	77	21.	*	1 JAN 1645	202	65.	*	2 JAN 0310	327	3.	*	2 JAN 1335	452	0.				
1 JAN 0625	78	21.	*	1 JAN 1650	203	64.	*	2 JAN 0315	328	3.	*	2 JAN 1340	453	0.				
1 JAN 0630	79	22.	*	1 JAN 1655	204	62.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.				
1 JAN 0635	80	22.	*	1 JAN 1700	205	61.	*	2 JAN 0325	330	2.	*	2 JAN 1350	455	0.				
1 JAN 0640	81	22.	*	1 JAN 1705	206	60.	*	2 JAN 0330	331	2.	*	2 JAN 1355	456	0.				
1 JAN 0645	82	22.	*	1 JAN 1710	207	58.	*	2 JAN 0335	332	2.	*	2 JAN 1400	457	0.				
1 JAN 0650	83	23.	*	1 JAN 1715	208	57.	*	2 JAN 0340	333	2.	*	2 JAN 1405	458	0.				
1 JAN 0655	84	23.	*	1 JAN 1720	209	55.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.				
1 JAN 0700	85	23.	*	1 JAN 1725	210	54.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.				
1 JAN 0705	86	24.	*	1 JAN 1730	211	53.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.				
1 JAN 0710	87	24.	*	1 JAN 1735	212	51.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.				
1 JAN 0715	88	24.	*	1 JAN 1740	213	50.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.				
1 JAN 0720	89	25.	*	1 JAN 1745	214	48.	*	2 JAN 0410	339	1.	*	2 JAN 1435	464	0.				
1 JAN 0725	90	25.	*	1 JAN 1750	215	47.	*	2 JAN 0415	340	1.	*	2 JAN 1440	465	0.				
1 JAN 0730	91	25.	*	1 JAN 1755	216	46.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.				
1 JAN 0735	92	25.	*	1 JAN 1800	217	45.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.				
1 JAN 0740	93	26.	*	1 JAN 1805	218	44.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.				
1 JAN 0745	94	26.	*	1 JAN 1810	219	43.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.				
1 JAN 0750	95	26.	*	1 JAN 1815	220	42.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.				
1 JAN 0755	96	26.	*	1 JAN 1820	221	41.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.				
1 JAN 0800	97	26.	*	1 JAN 1825	222	40.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.				
1 JAN 0805	98	26.	*	1 JAN 1830	223	39.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.				
1 JAN 0810	99	27.	*	1 JAN 1835	224	38.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.				
1 JAN 0815	100	27.	*	1 JAN 1840	225	37.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.				
1 JAN 0820	101	27.	*	1 JAN 1845	226	36.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.				
1 JAN 0825	102	27.	*	1 JAN 1850	227	35.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.				
1 JAN 0830	103	27.	*	1 JAN 1855	228	34.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.				
1 JAN 0835	104	28.	*	1 JAN 1900	229	33.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.				
1 JAN 0840	105	28.	*	1 JAN 1905	230	32.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.				
1 JAN 0845	106	28.	*	1 JAN 1910	231	31.	*	2 JAN 0535	356	0.	*	2 JAN 1600	481	0.				
1 JAN 0850	107	29.	*	1 JAN 1915	232	30.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.				
1 JAN 0855	108	29.	*	1 JAN 1920	233	30.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.				
1 JAN 0900	109	30.	*	1 JAN 1925	234	29.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.				
1 JAN 0905	110	30.	*	1 JAN 1930	235	28.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.				
1 JAN 0910	111	31.	*	1 JAN 1935	236	28.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.				
1 JAN 0915	112	32.	*	1 JAN 1940	237	27.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.				
1 JAN 0920	113	32.	*	1 JAN 1945	238	27.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.				
1 JAN 0925	114	33.	*	1 JAN 1950	239	26.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.				
1 JAN 0930	115	34.	*	1 JAN 1955	240	26.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.				
1 JAN 0935	116	34.	*	1 JAN 2000	241	25.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.				
1 JAN 0940	117	35.	*	1 JAN 2005	242	25.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.				
1 JAN 0945	118	35.	*	1 JAN 2010	243	25.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.				
1 JAN 0950	119	36.	*	1 JAN 2015	244	24.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.				
1 JAN 0955	120	37.	*	1 JAN 2020	245	24.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.				
1 JAN 1000	121	37.	*	1 JAN 2025	246	24.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.				
1 JAN 1005	122	38.	*	1 JAN 2030	247	23.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.				
1 JAN 1010	123	39.	*	1 JAN 2035	248	23.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.				
1 JAN 1015	124	40.	*	1 JAN 2040	249	22.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.				
1 JAN 1020	125	40.	*	1 JAN 2045	250	22.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.				
			*				*				*							

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)	(CFS)			

+	6848.	12.58		1373.	361.	209.	209.
			(INCHES)	1.470	1.547	1.550	1.550
			(AC-FT)	681.	717.	718.	718.

CUMULATIVE AREA = 8.69 SQ MI

INTERPOLATED HYDROGRAPH AT C007L

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	47.	1 JAN 2050	251	28.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	48.	1 JAN 2055	252	28.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	50.	1 JAN 2100	253	27.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	52.	1 JAN 2105	254	26.	2 JAN 0730	379	0.
1 JAN 0020	5	0.	1 JAN 1045	130	55.	1 JAN 2110	255	26.	2 JAN 0735	380	0.
1 JAN 0025	6	0.	1 JAN 1050	131	58.	1 JAN 2115	256	25.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	63.	1 JAN 2120	257	24.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	69.	1 JAN 2125	258	24.	2 JAN 0750	383	0.
1 JAN 0040	9	1.	1 JAN 1105	134	79.	1 JAN 2130	259	23.	2 JAN 0755	384	0.
1 JAN 0045	10	1.	1 JAN 1110	135	91.	1 JAN 2135	260	23.	2 JAN 0800	385	0.
1 JAN 0050	11	1.	1 JAN 1115	136	104.	1 JAN 2140	261	23.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	119.	1 JAN 2145	262	22.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	138.	1 JAN 2150	263	22.	2 JAN 0815	388	0.
1 JAN 0105	14	2.	1 JAN 1130	139	161.	1 JAN 2155	264	22.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	204.	1 JAN 2200	265	21.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	295.	1 JAN 2205	266	21.	2 JAN 0830	391	0.
1 JAN 0120	17	4.	1 JAN 1145	142	457.	1 JAN 2210	267	21.	2 JAN 0835	392	0.
1 JAN 0125	18	5.	1 JAN 1150	143	743.	1 JAN 2215	268	21.	2 JAN 0840	393	0.
1 JAN 0130	19	5.	1 JAN 1155	144	1257.	1 JAN 2220	269	21.	2 JAN 0845	394	0.
1 JAN 0135	20	6.	1 JAN 1200	145	2075.	1 JAN 2225	270	21.	2 JAN 0850	395	0.
1 JAN 0140	21	6.	1 JAN 1205	146	3113.	1 JAN 2230	271	21.	2 JAN 0855	396	0.
1 JAN 0145	22	7.	1 JAN 1210	147	4146.	1 JAN 2235	272	20.	2 JAN 0900	397	0.
1 JAN 0150	23	8.	1 JAN 1215	148	5210.	1 JAN 2240	273	20.	2 JAN 0905	398	0.
1 JAN 0155	24	8.	1 JAN 1220	149	6230.	1 JAN 2245	274	20.	2 JAN 0910	399	0.
1 JAN 0200	25	9.	1 JAN 1225	150	7002.	1 JAN 2250	275	20.	2 JAN 0915	400	0.
1 JAN 0205	26	10.	1 JAN 1230	151	7675.	1 JAN 2255	276	20.	2 JAN 0920	401	0.
1 JAN 0210	27	10.	1 JAN 1235	152	8039.	1 JAN 2300	277	20.	2 JAN 0925	402	0.
1 JAN 0215	28	11.	1 JAN 1240	153	7998.	1 JAN 2305	278	20.	2 JAN 0930	403	0.
1 JAN 0220	29	11.	1 JAN 1245	154	7604.	1 JAN 2310	279	20.	2 JAN 0935	404	0.
1 JAN 0225	30	12.	1 JAN 1250	155	6973.	1 JAN 2315	280	20.	2 JAN 0940	405	0.
1 JAN 0230	31	12.	1 JAN 1255	156	6238.	1 JAN 2320	281	20.	2 JAN 0945	406	0.
1 JAN 0235	32	13.	1 JAN 1300	157	5476.	1 JAN 2325	282	20.	2 JAN 0950	407	0.
1 JAN 0240	33	13.	1 JAN 1305	158	4684.	1 JAN 2330	283	20.	2 JAN 0955	408	0.
1 JAN 0245	34	13.	1 JAN 1310	159	3955.	1 JAN 2335	284	20.	2 JAN 1000	409	0.
1 JAN 0250	35	14.	1 JAN 1315	160	3365.	1 JAN 2340	285	20.	2 JAN 1005	410	0.
1 JAN 0255	36	14.	1 JAN 1320	161	2861.	1 JAN 2345	286	20.	2 JAN 1010	411	0.
1 JAN 0300	37	14.	1 JAN 1325	162	2432.	1 JAN 2350	287	19.	2 JAN 1015	412	0.
1 JAN 0305	38	15.	1 JAN 1330	163	2059.	1 JAN 2355	288	19.	2 JAN 1020	413	0.
1 JAN 0310	39	15.	1 JAN 1335	164	1734.	2 JAN 0000	289	19.	2 JAN 1025	414	0.
1 JAN 0315	40	15.	1 JAN 1340	165	1452.	2 JAN 0005	290	19.	2 JAN 1030	415	0.
1 JAN 0320	41	15.	1 JAN 1345	166	1240.	2 JAN 0010	291	19.	2 JAN 1035	416	0.
1 JAN 0325	42	16.	1 JAN 1350	167	1077.	2 JAN 0015	292	19.	2 JAN 1040	417	0.
1 JAN 0330	43	16.	1 JAN 1355	168	951.	2 JAN 0020	293	19.	2 JAN 1045	418	0.
1 JAN 0335	44	16.	1 JAN 1400	169	844.	2 JAN 0025	294	18.	2 JAN 1050	419	0.
1 JAN 0340	45	16.	1 JAN 1405	170	753.	2 JAN 0030	295	18.	2 JAN 1055	420	0.
1 JAN 0345	46	16.	1 JAN 1410	171	674.	2 JAN 0035	296	18.	2 JAN 1100	421	0.
1 JAN 0350	47	17.	1 JAN 1415	172	603.	2 JAN 0040	297	18.	2 JAN 1105	422	0.
1 JAN 0355	48	17.	1 JAN 1420	173	542.	2 JAN 0045	298	17.	2 JAN 1110	423	0.
1 JAN 0400	49	17.	1 JAN 1425	174	490.	2 JAN 0050	299	17.	2 JAN 1115	424	0.
1 JAN 0405	50	17.	1 JAN 1430	175	443.	2 JAN 0055	300	16.	2 JAN 1120	425	0.
1 JAN 0410	51	17.	1 JAN 1435	176	403.	2 JAN 0100	301	16.	2 JAN 1125	426	0.
1 JAN 0415	52	18.	1 JAN 1440	177	371.	2 JAN 0105	302	15.	2 JAN 1130	427	0.
1 JAN 0420	53	18.	1 JAN 1445	178	341.	2 JAN 0110	303	15.	2 JAN 1135	428	0.
1 JAN 0425	54	18.	1 JAN 1450	179	313.	2 JAN 0115	304	14.	2 JAN 1140	429	0.
1 JAN 0430	55	18.	1 JAN 1455	180	286.	2 JAN 0120	305	13.	2 JAN 1145	430	0.
1 JAN 0435	56	18.	1 JAN 1500	181	262.	2 JAN 0125	306	13.	2 JAN 1150	431	0.
1 JAN 0440	57	19.	1 JAN 1505	182	242.	2 JAN 0130	307	12.	2 JAN 1155	432	0.
1 JAN 0445	58	19.	1 JAN 1510	183	224.	2 JAN 0135	308	11.	2 JAN 1200	433	0.
1 JAN 0450	59	19.	1 JAN 1515	184	208.	2 JAN 0140	309	11.	2 JAN 1205	434	0.
1 JAN 0455	60	19.	1 JAN 1520	185	192.	2 JAN 0145	310	10.	2 JAN 1210	435	0.
1 JAN 0500	61	20.	1 JAN 1525	186	179.	2 JAN 0150	311	9.	2 JAN 1215	436	0.
1 JAN 0505	62	20.	1 JAN 1530	187	166.	2 JAN 0155	312	9.	2 JAN 1220	437	0.
1 JAN 0510	63	20.	1 JAN 1535	188	156.	2 JAN 0200	313	8.	2 JAN 1225	438	0.
1 JAN 0515	64	21.	1 JAN 1540	189	147.	2 JAN 0205	314	8.	2 JAN 1230	439	0.
1 JAN 0520	65	21.	1 JAN 1545	190	140.	2 JAN 0210	315	7.	2 JAN 1235	440	0.
1 JAN 0525	66	22.	1 JAN 1550	191	133.	2 JAN 0215	316	7.	2 JAN 1240	441	0.
1 JAN 0530	67	22.	1 JAN 1555	192	126.	2 JAN 0220	317	6.	2 JAN 1245	442	0.
1 JAN 0535	68	23.	1 JAN 1600	193	120.	2 JAN 0225	318	6.	2 JAN 1250	443	0.
1 JAN 0540	69	23.	1 JAN 1605	194	114.	2 JAN 0230	319	6.	2 JAN 1255	444	0.
1 JAN 0545	70	23.	1 JAN 1610	195	108.	2 JAN 0235	320	5.	2 JAN 1300	445	0.
1 JAN 0550	71	23.	1 JAN 1615	196	103.	2 JAN 0240	321	5.	2 JAN 1305	446	0.
1 JAN 0555	72	23.	1 JAN 1620	197	99.	2 JAN 0245	322	5.	2 JAN 1310	447	0.
1 JAN 0600	73	23.	1 JAN 1625	198	95.	2 JAN 0250	323	4.	2 JAN 1315	448	0.
1 JAN 0605	74	24.	1 JAN 1630	199	91.	2 JAN 0255	324	4.	2 JAN 1320	449	0.
1 JAN 0610	75	24.	1 JAN 1635	200	88.	2 JAN 0300	325	4.	2 JAN 1325	450	0.
1 JAN 0615	76	24.	1 JAN 1640	201	85.	2 JAN 0305	326	4.	2 JAN 1330	451	0.
1 JAN 0620	77	24.	1 JAN 1645	202	83.	2 JAN 0310	327	3.	2 JAN 1335	452	0.
1 JAN 0625	78	24.	1 JAN 1650	203	81.	2 JAN 0315	328	3.	2 JAN 1340	453	0.
1 JAN 0630	79	24.	1 JAN 1655	204	79.	2 JAN 0320	329	3.	2 JAN 1345	454	0.
1 JAN 0635	80	25.	1 JAN 1700	205	77.	2 JAN 0325	330	3.	2 JAN 1350	455	0.
1 JAN 0640	81	25.	1 JAN 1705	206	76.	2 JAN 0330	331	3.	2 JAN 1355	456	0.
1 JAN 0645	82	25.	1 JAN 1710	207	74.	2 JAN 0335	332	2.	2 JAN 1400	457	0.
1 JAN 0650	83	26.	1 JAN 1715	208	72.	2 JAN 0340	333	2.	2 JAN 1405	458	0.
1 JAN 0655	84	26.	1 JAN 1720	209	71.	2 JAN 0345	334	2.	2 JAN 1410	459	0.
1 JAN 0700	85	26.	1 JAN 1725	210	69.	2 JAN 0350	335	2.	2 JAN 1415	460	0.
1 JAN 0705	86	27.	1 JAN 1730	211	68.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	27.	1 JAN 1735	212	66.	2 JAN 0400	337	2.	2 JAN 1425	462	0.
1 JAN 0715	88	27.	1 JAN 1740	213	65.	2 JAN 0405	338	2.	2 JAN 1430	463	0.
1 JAN 0720	89	28.	1 JAN 1745	214	63.	2 JAN 0410	339	2.	2 JAN 1435	464	0.
1 JAN 0725	90	28.	1 JAN 1750	215	62.	2 JAN 0415	340	1.	2 JAN 1440	465	0.
1 JAN 0730	91	28.	1 JAN 1755	216	60.	2 JAN 0420	341	1.	2 JAN 1445	466	0.

1 JAN 0735	92	28.	*	1 JAN 1800	217	59.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.					
1 JAN 0740	93	29.	*	1 JAN 1805	218	58.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.					
1 JAN 0745	94	29.	*	1 JAN 1810	219	57.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.					
1 JAN 0750	95	29.	*	1 JAN 1815	220	56.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.					
1 JAN 0755	96	29.	*	1 JAN 1820	221	55.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.					
1 JAN 0800	97	29.	*	1 JAN 1825	222	54.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.					
1 JAN 0805	98	30.	*	1 JAN 1830	223	52.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.					
1 JAN 0810	99	30.	*	1 JAN 1835	224	51.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.					
1 JAN 0815	100	30.	*	1 JAN 1840	225	50.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.					
1 JAN 0820	101	30.	*	1 JAN 1845	226	48.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.					
1 JAN 0825	102	30.	*	1 JAN 1850	227	47.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.					
1 JAN 0830	103	31.	*	1 JAN 1855	228	45.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.					
1 JAN 0835	104	31.	*	1 JAN 1900	229	44.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.					
1 JAN 0840	105	31.	*	1 JAN 1905	230	43.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.					
1 JAN 0845	106	32.	*	1 JAN 1910	231	41.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.					
1 JAN 0850	107	32.	*	1 JAN 1915	232	40.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.					
1 JAN 0855	108	33.	*	1 JAN 1920	233	39.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.					
1 JAN 0900	109	33.	*	1 JAN 1925	234	38.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.					
1 JAN 0905	110	34.	*	1 JAN 1930	235	37.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.					
1 JAN 0910	111	35.	*	1 JAN 1935	236	36.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.					
1 JAN 0915	112	35.	*	1 JAN 1940	237	36.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.					
1 JAN 0920	113	36.	*	1 JAN 1945	238	35.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.					
1 JAN 0925	114	37.	*	1 JAN 1950	239	34.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.					
1 JAN 0930	115	38.	*	1 JAN 1955	240	34.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.					
1 JAN 0935	116	38.	*	1 JAN 2000	241	34.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.					
1 JAN 0940	117	39.	*	1 JAN 2005	242	33.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.					
1 JAN 0945	118	40.	*	1 JAN 2010	243	33.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.					
1 JAN 0950	119	40.	*	1 JAN 2015	244	32.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.					
1 JAN 0955	120	41.	*	1 JAN 2020	245	32.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.					
1 JAN 1000	121	42.	*	1 JAN 2025	246	32.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.					
1 JAN 1005	122	43.	*	1 JAN 2030	247	31.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.					
1 JAN 1010	123	44.	*	1 JAN 2035	248	30.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.					
1 JAN 1015	124	45.	*	1 JAN 2040	249	30.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.					
1 JAN 1020	125	46.	*	1 JAN 2045	250	29.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.					
			*				*				*								

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
	(CFS)				
+ 8039.	12.58	1621.	427.	247.	247.
	(INCHES)	1.735	1.828	1.831	1.831
	(AC-FT)	804.	847.	848.	848.

CUMULATIVE AREA = 8.69 SQ MI

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245 KK    *    C007    *
          *            *
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246 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	500	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

248 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT C007
TRANSPOSITION AREA .0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
			*				*				*			
1 JAN 0000	1	0.	*	1 JAN 1025	126	56.	*	1 JAN 2050	251	36.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	58.	*	1 JAN 2055	252	35.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	61.	*	1 JAN 2100	253	34.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	64.	*	1 JAN 2105	254	33.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	69.	*	1 JAN 2110	255	32.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	75.	*	1 JAN 2115	256	31.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	84.	*	1 JAN 2120	257	30.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	93.	*	1 JAN 2125	258	29.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	104.	*	1 JAN 2130	259	29.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	117.	*	1 JAN 2135	260	28.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	132.	*	1 JAN 2140	261	27.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	151.	*	1 JAN 2145	262	27.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	176.	*	1 JAN 2150	263	26.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	206.	*	1 JAN 2155	264	26.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	257.	*	1 JAN 2200	265	25.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	379.	*	1 JAN 2205	266	25.	*	2 JAN 0830	391	0.
1 JAN 0120	17	5.	*	1 JAN 1145	142	625.	*	1 JAN 2210	267	25.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	1088.	*	1 JAN 2215	268	25.	*	2 JAN 0840	393	0.
1 JAN 0130	19	6.	*	1 JAN 1155	144	1935.	*	1 JAN 2220	269	24.	*	2 JAN 0845	394	0.
1 JAN 0135	20	7.	*	1 JAN 1200	145	3293.	*	1 JAN 2225	270	24.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	5013.	*	1 JAN 2230	271	24.	*	2 JAN 0855	396	0.

1 JAN 0145	22	8.	*	1 JAN 1210	147	6746.	*	1 JAN 2235	272	24.	*	2 JAN 0900	397	0.		
1 JAN 0150	23	9.	*	1 JAN 1215	148	8334.	*	1 JAN 2240	273	23.	*	2 JAN 0905	398	0.		
1 JAN 0155	24	9.	*	1 JAN 1220	149	9535.	*	1 JAN 2245	274	23.	*	2 JAN 0910	399	0.		
1 JAN 0200	25	10.	*	1 JAN 1225	150	10222.	*	1 JAN 2250	275	23.	*	2 JAN 0915	400	0.		
1 JAN 0205	26	11.	*	1 JAN 1230	151	10599.	*	1 JAN 2255	276	23.	*	2 JAN 0920	401	0.		
1 JAN 0210	27	11.	*	1 JAN 1235	152	10574.	*	1 JAN 2300	277	23.	*	2 JAN 0925	402	0.		
1 JAN 0215	28	12.	*	1 JAN 1240	153	10129.	*	1 JAN 2305	278	23.	*	2 JAN 0930	403	0.		
1 JAN 0220	29	12.	*	1 JAN 1245	154	9393.	*	1 JAN 2310	279	23.	*	2 JAN 0935	404	0.		
1 JAN 0225	30	13.	*	1 JAN 1250	155	8520.	*	1 JAN 2315	280	23.	*	2 JAN 0940	405	0.		
1 JAN 0230	31	13.	*	1 JAN 1255	156	7595.	*	1 JAN 2320	281	23.	*	2 JAN 0945	406	0.		
1 JAN 0235	32	14.	*	1 JAN 1300	157	6690.	*	1 JAN 2325	282	23.	*	2 JAN 0950	407	0.		
1 JAN 0240	33	14.	*	1 JAN 1305	158	5800.	*	1 JAN 2330	283	23.	*	2 JAN 0955	408	0.		
1 JAN 0245	34	15.	*	1 JAN 1310	159	4894.	*	1 JAN 2335	284	23.	*	2 JAN 1000	409	0.		
1 JAN 0250	35	15.	*	1 JAN 1315	160	4163.	*	1 JAN 2340	285	22.	*	2 JAN 1005	410	0.		
1 JAN 0255	36	16.	*	1 JAN 1320	161	3544.	*	1 JAN 2345	286	22.	*	2 JAN 1010	411	0.		
1 JAN 0300	37	16.	*	1 JAN 1325	162	3019.	*	1 JAN 2350	287	22.	*	2 JAN 1015	412	0.		
1 JAN 0305	38	16.	*	1 JAN 1330	163	2561.	*	1 JAN 2355	288	22.	*	2 JAN 1020	413	0.		
1 JAN 0310	39	17.	*	1 JAN 1335	164	2161.	*	2 JAN 0000	289	22.	*	2 JAN 1025	414	0.		
1 JAN 0315	40	17.	*	1 JAN 1340	165	1817.	*	2 JAN 0005	290	22.	*	2 JAN 1030	415	0.		
1 JAN 0320	41	17.	*	1 JAN 1345	166	1535.	*	2 JAN 0010	291	22.	*	2 JAN 1035	416	0.		
1 JAN 0325	42	18.	*	1 JAN 1350	167	1322.	*	2 JAN 0015	292	22.	*	2 JAN 1040	417	0.		
1 JAN 0330	43	18.	*	1 JAN 1355	168	1159.	*	2 JAN 0020	293	21.	*	2 JAN 1045	418	0.		
1 JAN 0335	44	18.	*	1 JAN 1400	169	1025.	*	2 JAN 0025	294	21.	*	2 JAN 1050	419	0.		
1 JAN 0340	45	18.	*	1 JAN 1405	170	908.	*	2 JAN 0030	295	21.	*	2 JAN 1055	420	0.		
1 JAN 0345	46	19.	*	1 JAN 1410	171	810.	*	2 JAN 0035	296	21.	*	2 JAN 1100	421	0.		
1 JAN 0350	47	19.	*	1 JAN 1415	172	724.	*	2 JAN 0040	297	20.	*	2 JAN 1105	422	0.		
1 JAN 0355	48	19.	*	1 JAN 1420	173	648.	*	2 JAN 0045	298	20.	*	2 JAN 1110	423	0.		
1 JAN 0400	49	19.	*	1 JAN 1425	174	586.	*	2 JAN 0050	299	19.	*	2 JAN 1115	424	0.		
1 JAN 0405	50	20.	*	1 JAN 1430	175	530.	*	2 JAN 0055	300	19.	*	2 JAN 1120	425	0.		
1 JAN 0410	51	20.	*	1 JAN 1435	176	480.	*	2 JAN 0100	301	18.	*	2 JAN 1125	426	0.		
1 JAN 0415	52	20.	*	1 JAN 1440	177	437.	*	2 JAN 0105	302	18.	*	2 JAN 1130	427	0.		
1 JAN 0420	53	20.	*	1 JAN 1445	178	402.	*	2 JAN 0110	303	17.	*	2 JAN 1135	428	0.		
1 JAN 0425	54	21.	*	1 JAN 1450	179	369.	*	2 JAN 0115	304	16.	*	2 JAN 1140	429	0.		
1 JAN 0430	55	21.	*	1 JAN 1455	180	338.	*	2 JAN 0120	305	16.	*	2 JAN 1145	430	0.		
1 JAN 0435	56	21.	*	1 JAN 1500	181	310.	*	2 JAN 0125	306	15.	*	2 JAN 1150	431	0.		
1 JAN 0440	57	21.	*	1 JAN 1505	182	286.	*	2 JAN 0130	307	14.	*	2 JAN 1155	432	0.		
1 JAN 0445	58	22.	*	1 JAN 1510	183	265.	*	2 JAN 0135	308	13.	*	2 JAN 1200	433	0.		
1 JAN 0450	59	22.	*	1 JAN 1515	184	247.	*	2 JAN 0140	309	13.	*	2 JAN 1205	434	0.		
1 JAN 0455	60	23.	*	1 JAN 1520	185	229.	*	2 JAN 0145	310	12.	*	2 JAN 1210	435	0.		
1 JAN 0500	61	23.	*	1 JAN 1525	186	213.	*	2 JAN 0150	311	11.	*	2 JAN 1215	436	0.		
1 JAN 0505	62	24.	*	1 JAN 1530	187	199.	*	2 JAN 0155	312	11.	*	2 JAN 1220	437	0.		
1 JAN 0510	63	24.	*	1 JAN 1535	188	186.	*	2 JAN 0200	313	10.	*	2 JAN 1225	438	0.		
1 JAN 0515	64	25.	*	1 JAN 1540	189	175.	*	2 JAN 0205	314	9.	*	2 JAN 1230	439	0.		
1 JAN 0520	65	25.	*	1 JAN 1545	190	165.	*	2 JAN 0210	315	9.	*	2 JAN 1235	440	0.		
1 JAN 0525	66	26.	*	1 JAN 1550	191	156.	*	2 JAN 0215	316	8.	*	2 JAN 1240	441	0.		
1 JAN 0530	67	26.	*	1 JAN 1555	192	149.	*	2 JAN 0220	317	8.	*	2 JAN 1245	442	0.		
1 JAN 0535	68	26.	*	1 JAN 1600	193	142.	*	2 JAN 0225	318	7.	*	2 JAN 1250	443	0.		
1 JAN 0540	69	26.	*	1 JAN 1605	194	136.	*	2 JAN 0230	319	7.	*	2 JAN 1255	444	0.		
1 JAN 0545	70	26.	*	1 JAN 1610	195	129.	*	2 JAN 0235	320	7.	*	2 JAN 1300	445	0.		
1 JAN 0550	71	27.	*	1 JAN 1615	196	123.	*	2 JAN 0240	321	6.	*	2 JAN 1305	446	0.		
1 JAN 0555	72	27.	*	1 JAN 1620	197	118.	*	2 JAN 0245	322	6.	*	2 JAN 1310	447	0.		
1 JAN 0600	73	27.	*	1 JAN 1625	198	113.	*	2 JAN 0250	323	5.	*	2 JAN 1315	448	0.		
1 JAN 0605	74	27.	*	1 JAN 1630	199	109.	*	2 JAN 0255	324	5.	*	2 JAN 1320	449	0.		
1 JAN 0610	75	27.	*	1 JAN 1635	200	105.	*	2 JAN 0300	325	5.	*	2 JAN 1325	450	0.		
1 JAN 0615	76	27.	*	1 JAN 1640	201	102.	*	2 JAN 0305	326	4.	*	2 JAN 1330	451	0.		
1 JAN 0620	77	28.	*	1 JAN 1645	202	99.	*	2 JAN 0310	327	4.	*	2 JAN 1335	452	0.		
1 JAN 0625	78	28.	*	1 JAN 1650	203	96.	*	2 JAN 0315	328	4.	*	2 JAN 1340	453	0.		
1 JAN 0630	79	28.	*	1 JAN 1655	204	94.	*	2 JAN 0320	329	4.	*	2 JAN 1345	454	0.		
1 JAN 0635	80	28.	*	1 JAN 1700	205	92.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.		
1 JAN 0640	81	29.	*	1 JAN 1705	206	90.	*	2 JAN 0330	331	3.	*	2 JAN 1355	456	0.		
1 JAN 0645	82	29.	*	1 JAN 1710	207	88.	*	2 JAN 0335	332	3.	*	2 JAN 1400	457	0.		
1 JAN 0650	83	29.	*	1 JAN 1715	208	86.	*	2 JAN 0340	333	3.	*	2 JAN 1405	458	0.		
1 JAN 0655	84	30.	*	1 JAN 1720	209	83.	*	2 JAN 0345	334	3.	*	2 JAN 1410	459	0.		
1 JAN 0700	85	30.	*	1 JAN 1725	210	81.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.		
1 JAN 0705	86	30.	*	1 JAN 1730	211	79.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.		
1 JAN 0710	87	31.	*	1 JAN 1735	212	77.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.		
1 JAN 0715	88	31.	*	1 JAN 1740	213	75.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.		
1 JAN 0720	89	32.	*	1 JAN 1745	214	74.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.		
1 JAN 0725	90	32.	*	1 JAN 1750	215	72.	*	2 JAN 0415	340	2.	*	2 JAN 1440	465	0.		
1 JAN 0730	91	32.	*	1 JAN 1755	216	71.	*	2 JAN 0420	341	2.	*	2 JAN 1445	466	0.		
1 JAN 0735	92	33.	*	1 JAN 1800	217	70.	*	2 JAN 0425	342	2.	*	2 JAN 1450	467	0.		
1 JAN 0740	93	33.	*	1 JAN 1805	218	69.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.		
1 JAN 0745	94	33.	*	1 JAN 1810	219	68.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.		
1 JAN 0750	95	33.	*	1 JAN 1815	220	67.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.		
1 JAN 0755	96	33.	*	1 JAN 1820	221	65.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.		
1 JAN 0800	97	34.	*	1 JAN 1825	222	64.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.		
1 JAN 0805	98	34.	*	1 JAN 1830	223	63.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.		
1 JAN 0810	99	34.	*	1 JAN 1835	224	61.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.		
1 JAN 0815	100	34.	*	1 JAN 1840	225	60.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.		
1 JAN 0820	101	34.	*	1 JAN 1845	226	58.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.		
1 JAN 0825	102	35.	*	1 JAN 1850	227	57.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.		
1 JAN 0830	103	35.	*	1 JAN 1855	228	55.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.		
1 JAN 0835	104	35.	*	1 JAN 1900	229	53.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.		
1 JAN 0840	105	36.	*	1 JAN 1905	230	52.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.		
1 JAN 0845	106	36.	*	1 JAN 1910	231	51.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.		
1 JAN 0850	107	37.	*	1 JAN 1915	232	49.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.		
1 JAN 0855	108	37.	*	1 JAN 1920	233	48.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.		
1 JAN 0900	109	38.	*	1 JAN 1925	234	47.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.		
1 JAN 0905	110	39.	*	1 JAN 1930	235	46.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.		
1 JAN 0910	111	40.	*	1 JAN 1935	236	45.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.		
1 JAN 0915	112	40.	*	1 JAN 1940	237	45.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.		
1 JAN 0920	113	41.	*	1 JAN 1945	238	44.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.		
1 JAN 0925	114	42.	*	1 JAN 1950	239	43.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.		
1 JAN 0930	115	43.	*	1 JAN 1955	240	43.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.		
1 JAN 0935	116	44.	*	1 JAN 2000	241	42.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.		
1 JAN 0940	117	44.	*	1 JAN 2005	242	42.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.		
1 JAN 0945	118	45.	*	1 JAN 2010	243	42.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.		
1 JAN 0950	119	46.	*	1 JAN 2015	244	41.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.		
1 JAN 0955	120	47.	*	1 JAN 2020	245	41.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.		
1 JAN 1000	121	48.	*	1 JAN 2025	246	40.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.		
1 JAN 1005	122	49.	*	1 JAN 2030	247	39.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.		
1 JAN 1010	123	50.	*	1 JAN 2035	248	39.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.		
1 JAN 1015	124	52.	*	1 JAN 2040	249	38.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.		
1 JAN 1020	125	54.	*	1 JAN 2045	250	37.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.		
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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 10599.	12.50	2154.	564.	326.	326.
		(INCHES) 1.803	1.889	1.891	1.891
		(AC-FT) 1068.	1119.	1121.	1121.

CUMULATIVE AREA = 11.11 SQ MI

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HYDROGRAPH AT C007
TRANSPOSITION AREA 1.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	55.	*	1 JAN 2050	251	35.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	57.	*	1 JAN 2055	252	34.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	60.	*	1 JAN 2100	253	33.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	63.	*	1 JAN 2105	254	32.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	67.	*	1 JAN 2110	255	31.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	73.	*	1 JAN 2115	256	30.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	81.	*	1 JAN 2120	257	30.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	91.	*	1 JAN 2125	258	29.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	102.	*	1 JAN 2130	259	28.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	114.	*	1 JAN 2135	260	28.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	129.	*	1 JAN 2140	261	27.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	147.	*	1 JAN 2145	262	26.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	172.	*	1 JAN 2150	263	26.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	201.	*	1 JAN 2155	264	26.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	252.	*	1 JAN 2200	265	25.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	371.	*	1 JAN 2205	266	25.	*	2 JAN 0830	391	0.
1 JAN 0120	17	5.	*	1 JAN 1145	142	613.	*	1 JAN 2210	267	25.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	1069.	*	1 JAN 2215	268	24.	*	2 JAN 0840	393	0.
1 JAN 0130	19	6.	*	1 JAN 1155	144	1905.	*	1 JAN 2220	269	24.	*	2 JAN 0845	394	0.
1 JAN 0135	20	7.	*	1 JAN 1200	145	3249.	*	1 JAN 2225	270	24.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	4959.	*	1 JAN 2230	271	24.	*	2 JAN 0855	396	0.
1 JAN 0145	22	8.	*	1 JAN 1210	147	6679.	*	1 JAN 2235	272	23.	*	2 JAN 0900	397	0.
1 JAN 0150	23	9.	*	1 JAN 1215	148	8253.	*	1 JAN 2240	273	23.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	9446.	*	1 JAN 2245	274	23.	*	2 JAN 0910	399	0.
1 JAN 0200	25	10.	*	1 JAN 1225	150	10122.	*	1 JAN 2250	275	23.	*	2 JAN 0915	400	0.
1 JAN 0205	26	11.	*	1 JAN 1230	151	10493.	*	1 JAN 2255	276	23.	*	2 JAN 0920	401	0.
1 JAN 0210	27	11.	*	1 JAN 1235	152	10467.	*	1 JAN 2300	277	23.	*	2 JAN 0925	402	0.
1 JAN 0215	28	12.	*	1 JAN 1240	153	10029.	*	1 JAN 2305	278	23.	*	2 JAN 0930	403	0.
1 JAN 0220	29	12.	*	1 JAN 1245	154	9305.	*	1 JAN 2310	279	23.	*	2 JAN 0935	404	0.
1 JAN 0225	30	13.	*	1 JAN 1250	155	8442.	*	1 JAN 2315	280	23.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	7524.	*	1 JAN 2320	281	23.	*	2 JAN 0945	406	0.
1 JAN 0235	32	14.	*	1 JAN 1300	157	6626.	*	1 JAN 2325	282	23.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	5737.	*	1 JAN 2330	283	22.	*	2 JAN 0955	408	0.
1 JAN 0245	34	15.	*	1 JAN 1310	159	4842.	*	1 JAN 2335	284	22.	*	2 JAN 1000	409	0.
1 JAN 0250	35	15.	*	1 JAN 1315	160	4122.	*	1 JAN 2340	285	22.	*	2 JAN 1005	410	0.
1 JAN 0255	36	16.	*	1 JAN 1320	161	3509.	*	1 JAN 2345	286	22.	*	2 JAN 1010	411	0.
1 JAN 0300	37	16.	*	1 JAN 1325	162	2989.	*	1 JAN 2350	287	22.	*	2 JAN 1015	412	0.
1 JAN 0305	38	16.	*	1 JAN 1330	163	2535.	*	1 JAN 2355	288	22.	*	2 JAN 1020	413	0.
1 JAN 0310	39	17.	*	1 JAN 1335	164	2138.	*	2 JAN 0000	289	22.	*	2 JAN 1025	414	0.
1 JAN 0315	40	17.	*	1 JAN 1340	165	1797.	*	2 JAN 0005	290	22.	*	2 JAN 1030	415	0.
1 JAN 0320	41	17.	*	1 JAN 1345	166	1520.	*	2 JAN 0010	291	22.	*	2 JAN 1035	416	0.
1 JAN 0325	42	18.	*	1 JAN 1350	167	1310.	*	2 JAN 0015	292	22.	*	2 JAN 1040	417	0.
1 JAN 0330	43	18.	*	1 JAN 1355	168	1148.	*	2 JAN 0020	293	21.	*	2 JAN 1045	418	0.
1 JAN 0335	44	18.	*	1 JAN 1400	169	1016.	*	2 JAN 0025	294	21.	*	2 JAN 1050	419	0.
1 JAN 0340	45	18.	*	1 JAN 1405	170	899.	*	2 JAN 0030	295	21.	*	2 JAN 1055	420	0.
1 JAN 0345	46	19.	*	1 JAN 1410	171	803.	*	2 JAN 0035	296	20.	*	2 JAN 1100	421	0.
1 JAN 0350	47	19.	*	1 JAN 1415	172	717.	*	2 JAN 0040	297	20.	*	2 JAN 1105	422	0.
1 JAN 0355	48	19.	*	1 JAN 1420	173	642.	*	2 JAN 0045	298	20.	*	2 JAN 1110	423	0.
1 JAN 0400	49	19.	*	1 JAN 1425	174	580.	*	2 JAN 0050	299	19.	*	2 JAN 1115	424	0.
1 JAN 0405	50	20.	*	1 JAN 1430	175	524.	*	2 JAN 0055	300	19.	*	2 JAN 1120	425	0.
1 JAN 0410	51	20.	*	1 JAN 1435	176	475.	*	2 JAN 0100	301	18.	*	2 JAN 1125	426	0.
1 JAN 0415	52	20.	*	1 JAN 1440	177	433.	*	2 JAN 0105	302	18.	*	2 JAN 1130	427	0.
1 JAN 0420	53	20.	*	1 JAN 1445	178	398.	*	2 JAN 0110	303	17.	*	2 JAN 1135	428	0.
1 JAN 0425	54	20.	*	1 JAN 1450	179	365.	*	2 JAN 0115	304	16.	*	2 JAN 1140	429	0.
1 JAN 0430	55	21.	*	1 JAN 1455	180	334.	*	2 JAN 0120	305	15.	*	2 JAN 1145	430	0.
1 JAN 0435	56	21.	*	1 JAN 1500	181	307.	*	2 JAN 0125	306	15.	*	2 JAN 1150	431	0.
1 JAN 0440	57	21.	*	1 JAN 1505	182	282.	*	2 JAN 0130	307	14.	*	2 JAN 1155	432	0.
1 JAN 0445	58	22.	*	1 JAN 1510	183	262.	*	2 JAN 0135	308	13.	*	2 JAN 1200	433	0.
1 JAN 0450	59	22.	*	1 JAN 1515	184	244.	*	2 JAN 0140	309	12.	*	2 JAN 1205	434	0.
1 JAN 0455	60	22.	*	1 JAN 1520	185	226.	*	2 JAN 0145	310	12.	*	2 JAN 1210	435	0.
1 JAN 0500	61	23.	*	1 JAN 1525	186	211.	*	2 JAN 0150	311	11.	*	2 JAN 1215	436	0.
1 JAN 0505	62	24.	*	1 JAN 1530	187	196.	*	2 JAN 0155	312	10.	*	2 JAN 1220	437	0.
1 JAN 0510	63	24.	*	1 JAN 1535	188	184.	*	2 JAN 0200	313	10.	*	2 JAN 1225	438	0.
1 JAN 0515	64	25.	*	1 JAN 1540	189	172.	*	2 JAN 0205	314	9.	*	2 JAN 1230	439	0.
1 JAN 0520	65	25.	*	1 JAN 1545	190	162.	*	2 JAN 0210	315	9.	*	2 JAN 1235	440	0.
1 JAN 0525	66	25.	*	1 JAN 1550	191	154.	*	2 JAN 0215	316	8.	*	2 JAN 1240	441	0.
1 JAN 0530	67	26.	*	1 JAN 1555	192	147.	*	2 JAN 0220	317	8.	*	2 JAN 1245	442	0.
1 JAN 0535	68	26.	*	1 JAN 1600	193	140.	*	2 JAN 0225	318	7.	*	2 JAN 1250	443	0.
1 JAN 0540	69	26.	*	1 JAN 1605	194	134.	*	2 JAN 0230	319	7.	*	2 JAN 1255	444	0.
1 JAN 0545	70	26.	*	1 JAN 1610	195	127.	*	2 JAN 0235	320	6.	*	2 JAN 1300	445	0.
1 JAN 0550	71	26.	*	1 JAN 1615	196	121.	*	2 JAN 0240	321	6.	*	2 JAN 1305	446	0.
1 JAN 0555	72	27.	*	1 JAN 1620	197	116.	*	2 JAN 0245	322	6.	*	2 JAN 1310	447	0.
1 JAN 0600	73	27.	*	1 JAN 1625	198	111.	*	2 JAN 0250	323	5.	*	2 JAN 1315	448	0.
1 JAN 0605	74	27.	*	1 JAN 1630	199	107.	*	2 JAN 0255	324	5.	*	2 JAN 1320	449	0.
1 JAN 0610	75	27.	*	1 JAN 1635	200	103.	*	2 JAN 0300	325	5.	*	2 JAN 1325	450	0.
1 JAN 0615	76	27.	*	1 JAN 1640	201	100.	*	2 JAN 0305	326	4.	*	2 JAN 1330	451	0.
1 JAN 0620	77	27.	*	1 JAN 1645	202	97.	*	2 JAN 0310	327	4.	*	2 JAN 1335	452	0.
1 JAN 0625	78	28.	*	1 JAN 1650	203	95.	*	2 JAN 0315	328	4.	*	2 JAN 1340	453	0.
1 JAN 0630	79	28.	*	1 JAN 1655	204	92.	*	2 JAN 0320	329	4.	*	2 JAN 1345	454	0.
1 JAN 0635	80	28.	*	1 JAN 1700	205	90.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.
1 JAN 0640	81	28.	*	1 JAN 1705	206	88.	*	2 JAN 0330	331	3.	*	2 JAN 1355	456	0.
1 JAN 0645	82	29.	*	1 JAN 1710	207	86.	*	2 JAN 0335	332	3.	*	2 JAN 1400	457	0.
1 JAN 0650	83	29.	*	1 JAN 1715	208	84.	*	2 JAN 0340	333	3.	*	2 JAN 1405	458	0.
1 JAN 0655	84	29.	*	1 JAN 1720	209	82.	*	2 JAN 0345	334	3.	*	2 JAN 1410	459	0.
1 JAN 0700	85	30.	*	1 JAN 1725	210	80.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.

1 JAN 0705	86	30.	1 JAN 1730	211	78.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	31.	1 JAN 1735	212	76.	2 JAN 0400	337	2.	2 JAN 1425	462	0.
1 JAN 0715	88	31.	1 JAN 1740	213	74.	2 JAN 0405	338	2.	2 JAN 1430	463	0.
1 JAN 0720	89	31.	1 JAN 1745	214	73.	2 JAN 0410	339	2.	2 JAN 1435	464	0.
1 JAN 0725	90	32.	1 JAN 1750	215	72.	2 JAN 0415	340	2.	2 JAN 1440	465	0.
1 JAN 0730	91	32.	1 JAN 1755	216	70.	2 JAN 0420	341	2.	2 JAN 1445	466	0.
1 JAN 0735	92	32.	1 JAN 1800	217	69.	2 JAN 0425	342	1.	2 JAN 1450	467	0.
1 JAN 0740	93	33.	1 JAN 1805	218	68.	2 JAN 0430	343	1.	2 JAN 1455	468	0.
1 JAN 0745	94	33.	1 JAN 1810	219	67.	2 JAN 0435	344	1.	2 JAN 1500	469	0.
1 JAN 0750	95	33.	1 JAN 1815	220	66.	2 JAN 0440	345	1.	2 JAN 1505	470	0.
1 JAN 0755	96	33.	1 JAN 1820	221	64.	2 JAN 0445	346	1.	2 JAN 1510	471	0.
1 JAN 0800	97	33.	1 JAN 1825	222	63.	2 JAN 0450	347	1.	2 JAN 1515	472	0.
1 JAN 0805	98	34.	1 JAN 1830	223	62.	2 JAN 0455	348	1.	2 JAN 1520	473	0.
1 JAN 0810	99	34.	1 JAN 1835	224	60.	2 JAN 0500	349	1.	2 JAN 1525	474	0.
1 JAN 0815	100	34.	1 JAN 1840	225	59.	2 JAN 0505	350	1.	2 JAN 1530	475	0.
1 JAN 0820	101	34.	1 JAN 1845	226	57.	2 JAN 0510	351	1.	2 JAN 1535	476	0.
1 JAN 0825	102	34.	1 JAN 1850	227	56.	2 JAN 0515	352	1.	2 JAN 1540	477	0.
1 JAN 0830	103	35.	1 JAN 1855	228	54.	2 JAN 0520	353	1.	2 JAN 1545	478	0.
1 JAN 0835	104	35.	1 JAN 1900	229	53.	2 JAN 0525	354	1.	2 JAN 1550	479	0.
1 JAN 0840	105	35.	1 JAN 1905	230	51.	2 JAN 0530	355	1.	2 JAN 1555	480	0.
1 JAN 0845	106	36.	1 JAN 1910	231	50.	2 JAN 0535	356	1.	2 JAN 1600	481	0.
1 JAN 0850	107	37.	1 JAN 1915	232	49.	2 JAN 0540	357	1.	2 JAN 1605	482	0.
1 JAN 0855	108	37.	1 JAN 1920	233	47.	2 JAN 0545	358	0.	2 JAN 1610	483	0.
1 JAN 0900	109	38.	1 JAN 1925	234	46.	2 JAN 0550	359	0.	2 JAN 1615	484	0.
1 JAN 0905	110	39.	1 JAN 1930	235	45.	2 JAN 0555	360	0.	2 JAN 1620	485	0.
1 JAN 0910	111	39.	1 JAN 1935	236	45.	2 JAN 0600	361	0.	2 JAN 1625	486	0.
1 JAN 0915	112	40.	1 JAN 1940	237	44.	2 JAN 0605	362	0.	2 JAN 1630	487	0.
1 JAN 0920	113	41.	1 JAN 1945	238	43.	2 JAN 0610	363	0.	2 JAN 1635	488	0.
1 JAN 0925	114	42.	1 JAN 1950	239	43.	2 JAN 0615	364	0.	2 JAN 1640	489	0.
1 JAN 0930	115	42.	1 JAN 1955	240	42.	2 JAN 0620	365	0.	2 JAN 1645	490	0.
1 JAN 0935	116	43.	1 JAN 2000	241	42.	2 JAN 0625	366	0.	2 JAN 1650	491	0.
1 JAN 0940	117	44.	1 JAN 2005	242	41.	2 JAN 0630	367	0.	2 JAN 1655	492	0.
1 JAN 0945	118	45.	1 JAN 2010	243	41.	2 JAN 0635	368	0.	2 JAN 1700	493	0.
1 JAN 0950	119	46.	1 JAN 2015	244	40.	2 JAN 0640	369	0.	2 JAN 1705	494	0.
1 JAN 0955	120	47.	1 JAN 2020	245	40.	2 JAN 0645	370	0.	2 JAN 1710	495	0.
1 JAN 1000	121	48.	1 JAN 2025	246	39.	2 JAN 0650	371	0.	2 JAN 1715	496	0.
1 JAN 1005	122	49.	1 JAN 2030	247	39.	2 JAN 0655	372	0.	2 JAN 1720	497	0.
1 JAN 1010	123	50.	1 JAN 2035	248	38.	2 JAN 0700	373	0.	2 JAN 1725	498	0.
1 JAN 1015	124	51.	1 JAN 2040	249	37.	2 JAN 0705	374	0.	2 JAN 1730	499	0.
1 JAN 1020	125	53.	1 JAN 2045	250	36.	2 JAN 0710	375	0.	2 JAN 1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
10493.	12.50	2132.	558.	323.	323.
		(INCHES) 1.784	1.869	1.872	1.872
		(AC-FT) 1057.	1107.	1109.	1109.

CUMULATIVE AREA = 11.11 SQ MI

HYDROGRAPH AT C007
TRANSPOSITION AREA 5.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	52.	1 JAN 2050	251	33.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	54.	1 JAN 2055	252	32.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	57.	1 JAN 2100	253	31.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	59.	1 JAN 2105	254	30.	2 JAN 0730	379	0.
1 JAN 0020	5	0.	1 JAN 1045	130	63.	1 JAN 2110	255	30.	2 JAN 0735	380	0.
1 JAN 0025	6	0.	1 JAN 1050	131	67.	1 JAN 2115	256	29.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	73.	1 JAN 2120	257	28.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	82.	1 JAN 2125	258	28.	2 JAN 0750	383	0.
1 JAN 0040	9	1.	1 JAN 1105	134	93.	1 JAN 2130	259	27.	2 JAN 0755	384	0.
1 JAN 0045	10	1.	1 JAN 1110	135	105.	1 JAN 2135	260	26.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	119.	1 JAN 2140	261	26.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	135.	1 JAN 2145	262	25.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	156.	1 JAN 2150	263	25.	2 JAN 0815	388	0.
1 JAN 0105	14	3.	1 JAN 1130	139	184.	1 JAN 2155	264	25.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	232.	1 JAN 2200	265	24.	2 JAN 0825	390	0.
1 JAN 0115	16	4.	1 JAN 1140	141	343.	1 JAN 2205	266	24.	2 JAN 0830	391	0.
1 JAN 0120	17	4.	1 JAN 1145	142	571.	1 JAN 2210	267	24.	2 JAN 0835	392	0.
1 JAN 0125	18	5.	1 JAN 1150	143	1004.	1 JAN 2215	268	24.	2 JAN 0840	393	0.
1 JAN 0130	19	6.	1 JAN 1155	144	1805.	1 JAN 2220	269	23.	2 JAN 0845	394	0.
1 JAN 0135	20	6.	1 JAN 1200	145	3104.	1 JAN 2225	270	23.	2 JAN 0850	395	0.
1 JAN 0140	21	7.	1 JAN 1205	146	4781.	1 JAN 2230	271	23.	2 JAN 0855	396	0.
1 JAN 0145	22	8.	1 JAN 1210	147	6458.	1 JAN 2235	272	23.	2 JAN 0900	397	0.
1 JAN 0150	23	8.	1 JAN 1215	148	7981.	1 JAN 2240	273	23.	2 JAN 0905	398	0.
1 JAN 0155	24	9.	1 JAN 1220	149	9152.	1 JAN 2245	274	23.	2 JAN 0910	399	0.
1 JAN 0200	25	10.	1 JAN 1225	150	9791.	1 JAN 2250	275	23.	2 JAN 0915	400	0.
1 JAN 0205	26	10.	1 JAN 1230	151	10141.	1 JAN 2255	276	23.	2 JAN 0920	401	0.
1 JAN 0210	27	11.	1 JAN 1235	152	10106.	1 JAN 2300	277	22.	2 JAN 0925	402	0.
1 JAN 0215	28	11.	1 JAN 1240	153	9699.	1 JAN 2305	278	22.	2 JAN 0930	403	0.
1 JAN 0220	29	12.	1 JAN 1245	154	9013.	1 JAN 2310	279	22.	2 JAN 0935	404	0.
1 JAN 0225	30	13.	1 JAN 1250	155	8176.	1 JAN 2315	280	22.	2 JAN 0940	405	0.
1 JAN 0230	31	13.	1 JAN 1255	156	7286.	1 JAN 2320	281	22.	2 JAN 0945	406	0.
1 JAN 0235	32	13.	1 JAN 1300	157	6410.	1 JAN 2325	282	22.	2 JAN 0950	407	0.
1 JAN 0240	33	14.	1 JAN 1305	158	5524.	1 JAN 2330	283	22.	2 JAN 0955	408	0.
1 JAN 0245	34	14.	1 JAN 1310	159	4672.	1 JAN 2335	284	22.	2 JAN 1000	409	0.
1 JAN 0250	35	15.	1 JAN 1315	160	3984.	1 JAN 2340	285	22.	2 JAN 1005	410	0.
1 JAN 0255	36	15.	1 JAN 1320	161	3395.	1 JAN 2345	286	22.	2 JAN 1010	411	0.
1 JAN 0300	37	16.	1 JAN 1325	162	2889.	1 JAN 2350	287	22.	2 JAN 1015	412	0.
1 JAN 0305	38	16.	1 JAN 1330	163	2446.	1 JAN 2355	288	22.	2 JAN 1020	413	0.
1 JAN 0310	39	16.	1 JAN 1335	164	2062.	2 JAN 0000	289	22.	2 JAN 1025	414	0.
1 JAN 0315	40	17.	1 JAN 1340	165	1730.	2 JAN 0005	290	21.	2 JAN 1030	415	0.
1 JAN 0320	41	17.	1 JAN 1345	166	1469.	2 JAN 0010	291	21.	2 JAN 1035	416	0.
1 JAN 0325	42	17.	1 JAN 1350	167	1269.	2 JAN 0015	292	21.	2 JAN 1040	417	0.
1 JAN 0330	43	17.	1 JAN 1355	168	1114.	2 JAN 0020	293	21.	2 JAN 1045	418	0.

1	JAN	0335	44	18.	*	1	JAN	1400	169	984.	*	2	JAN	0025	294	21.	*	2	JAN	1050	419	0.
1	JAN	0340	45	18.	*	1	JAN	1405	170	872.	*	2	JAN	0030	295	20.	*	2	JAN	1055	420	0.
1	JAN	0345	46	18.	*	1	JAN	1410	171	778.	*	2	JAN	0035	296	20.	*	2	JAN	1100	421	0.
1	JAN	0350	47	18.	*	1	JAN	1415	172	694.	*	2	JAN	0040	297	20.	*	2	JAN	1105	422	0.
1	JAN	0355	48	19.	*	1	JAN	1420	173	622.	*	2	JAN	0045	298	19.	*	2	JAN	1110	423	0.
1	JAN	0400	49	19.	*	1	JAN	1425	174	562.	*	2	JAN	0050	299	19.	*	2	JAN	1115	424	0.
1	JAN	0405	50	19.	*	1	JAN	1430	175	506.	*	2	JAN	0055	300	18.	*	2	JAN	1120	425	0.
1	JAN	0410	51	19.	*	1	JAN	1435	176	458.	*	2	JAN	0100	301	18.	*	2	JAN	1125	426	0.
1	JAN	0415	52	20.	*	1	JAN	1440	177	418.	*	2	JAN	0105	302	17.	*	2	JAN	1130	427	0.
1	JAN	0420	53	20.	*	1	JAN	1445	178	384.	*	2	JAN	0110	303	16.	*	2	JAN	1135	428	0.
1	JAN	0425	54	20.	*	1	JAN	1450	179	352.	*	2	JAN	0115	304	16.	*	2	JAN	1140	429	0.
1	JAN	0430	55	20.	*	1	JAN	1455	180	321.	*	2	JAN	0120	305	15.	*	2	JAN	1145	430	0.
1	JAN	0435	56	20.	*	1	JAN	1500	181	295.	*	2	JAN	0125	306	14.	*	2	JAN	1150	431	0.
1	JAN	0440	57	21.	*	1	JAN	1505	182	272.	*	2	JAN	0130	307	14.	*	2	JAN	1155	432	0.
1	JAN	0445	58	21.	*	1	JAN	1510	183	252.	*	2	JAN	0135	308	13.	*	2	JAN	1200	433	0.
1	JAN	0450	59	21.	*	1	JAN	1515	184	234.	*	2	JAN	0140	309	12.	*	2	JAN	1205	434	0.
1	JAN	0455	60	22.	*	1	JAN	1520	185	217.	*	2	JAN	0145	310	12.	*	2	JAN	1210	435	0.
1	JAN	0500	61	22.	*	1	JAN	1525	186	201.	*	2	JAN	0150	311	11.	*	2	JAN	1215	436	0.
1	JAN	0505	62	22.	*	1	JAN	1530	187	188.	*	2	JAN	0155	312	10.	*	2	JAN	1220	437	0.
1	JAN	0510	63	23.	*	1	JAN	1535	188	175.	*	2	JAN	0200	313	10.	*	2	JAN	1225	438	0.
1	JAN	0515	64	24.	*	1	JAN	1540	189	164.	*	2	JAN	0205	314	9.	*	2	JAN	1230	439	0.
1	JAN	0520	65	24.	*	1	JAN	1545	190	155.	*	2	JAN	0210	315	9.	*	2	JAN	1235	440	0.
1	JAN	0525	66	25.	*	1	JAN	1550	191	148.	*	2	JAN	0215	316	8.	*	2	JAN	1240	441	0.
1	JAN	0530	67	25.	*	1	JAN	1555	192	141.	*	2	JAN	0220	317	8.	*	2	JAN	1245	442	0.
1	JAN	0535	68	25.	*	1	JAN	1600	193	134.	*	2	JAN	0225	318	7.	*	2	JAN	1250	443	0.
1	JAN	0540	69	25.	*	1	JAN	1605	194	127.	*	2	JAN	0230	319	7.	*	2	JAN	1255	444	0.
1	JAN	0545	70	26.	*	1	JAN	1610	195	121.	*	2	JAN	0235	320	6.	*	2	JAN	1300	445	0.
1	JAN	0550	71	26.	*	1	JAN	1615	196	115.	*	2	JAN	0240	321	6.	*	2	JAN	1305	446	0.
1	JAN	0555	72	26.	*	1	JAN	1620	197	110.	*	2	JAN	0245	322	6.	*	2	JAN	1310	447	0.
1	JAN	0600	73	26.	*	1	JAN	1625	198	106.	*	2	JAN	0250	323	5.	*	2	JAN	1315	448	0.
1	JAN	0605	74	26.	*	1	JAN	1630	199	101.	*	2	JAN	0255	324	5.	*	2	JAN	1320	449	0.
1	JAN	0610	75	26.	*	1	JAN	1635	200	98.	*	2	JAN	0300	325	5.	*	2	JAN	1325	450	0.
1	JAN	0615	76	26.	*	1	JAN	1640	201	95.	*	2	JAN	0305	326	4.	*	2	JAN	1330	451	0.
1	JAN	0620	77	27.	*	1	JAN	1645	202	92.	*	2	JAN	0310	327	4.	*	2	JAN	1335	452	0.
1	JAN	0625	78	27.	*	1	JAN	1650	203	90.	*	2	JAN	0315	328	4.	*	2	JAN	1340	453	0.
1	JAN	0630	79	27.	*	1	JAN	1655	204	88.	*	2	JAN	0320	329	4.	*	2	JAN	1345	454	0.
1	JAN	0635	80	27.	*	1	JAN	1700	205	86.	*	2	JAN	0325	330	3.	*	2	JAN	1350	455	0.
1	JAN	0640	81	28.	*	1	JAN	1705	206	84.	*	2	JAN	0330	331	3.	*	2	JAN	1355	456	0.
1	JAN	0645	82	28.	*	1	JAN	1710	207	82.	*	2	JAN	0335	332	3.	*	2	JAN	1400	457	0.
1	JAN	0650	83	28.	*	1	JAN	1715	208	80.	*	2	JAN	0340	333	3.	*	2	JAN	1405	458	0.
1	JAN	0655	84	29.	*	1	JAN	1720	209	78.	*	2	JAN	0345	334	3.	*	2	JAN	1410	459	0.
1	JAN	0700	85	29.	*	1	JAN	1725	210	76.	*	2	JAN	0350	335	2.	*	2	JAN	1415	460	0.
1	JAN	0705	86	30.	*	1	JAN	1730	211	74.	*	2	JAN	0355	336	2.	*	2	JAN	1420	461	0.
1	JAN	0710	87	30.	*	1	JAN	1735	212	73.	*	2	JAN	0400	337	2.	*	2	JAN	1425	462	0.
1	JAN	0715	88	30.	*	1	JAN	1740	213	71.	*	2	JAN	0405	338	2.	*	2	JAN	1430	463	0.
1	JAN	0720	89	31.	*	1	JAN	1745	214	70.	*	2	JAN	0410	339	2.	*	2	JAN	1435	464	0.
1	JAN	0725	90	31.	*	1	JAN	1750	215	69.	*	2	JAN	0415	340	2.	*	2	JAN	1440	465	0.
1	JAN	0730	91	31.	*	1	JAN	1755	216	67.	*	2	JAN	0420	341	2.	*	2	JAN	1445	466	0.
1	JAN	0735	92	32.	*	1	JAN	1800	217	66.	*	2	JAN	0425	342	1.	*	2	JAN	1450	467	0.
1	JAN	0740	93	32.	*	1	JAN	1805	218	65.	*	2	JAN	0430	343	1.	*	2	JAN	1455	468	0.
1	JAN	0745	94	32.	*	1	JAN	1810	219	63.	*	2	JAN	0435	344	1.	*	2	JAN	1500	469	0.
1	JAN	0750	95	32.	*	1	JAN	1815	220	62.	*	2	JAN	0440	345	1.	*	2	JAN	1505	470	0.
1	JAN	0755	96	32.	*	1	JAN	1820	221	61.	*	2	JAN	0445	346	1.	*	2	JAN	1510	471	0.
1	JAN	0800	97	33.	*	1	JAN	1825	222	60.	*	2	JAN	0450	347	1.	*	2	JAN	1515	472	0.
1	JAN	0805	98	33.	*	1	JAN	1830	223	59.	*	2	JAN	0455	348	1.	*	2	JAN	1520	473	0.
1	JAN	0810	99	33.	*	1	JAN	1835	224	57.	*	2	JAN	0500	349	1.	*	2	JAN	1525	474	0.
1	JAN	0815	100	33.	*	1	JAN	1840	225	56.	*	2	JAN	0505	350	1.	*	2	JAN	1530	475	0.
1	JAN	0820	101	33.	*	1	JAN	1845	226	54.	*	2	JAN	0510	351	1.	*	2	JAN	1535	476	0.
1	JAN	0825	102	34.	*	1	JAN	1850	227	53.	*	2	JAN	0515	352	1.	*	2	JAN	1540	477	0.
1	JAN	0830	103	34.	*	1	JAN	1855	228	51.	*	2	JAN	0520	353	1.	*	2	JAN	1545	478	0.
1	JAN	0835	104	34.	*	1	JAN	1900	229	50.	*	2	JAN	0525	354	1.	*	2	JAN	1550	479	0.
1	JAN	0840	105	35.	*	1	JAN	1905	230	48.	*	2	JAN	0530	355	1.	*	2	JAN	1555	480	0.
1	JAN	0845	106	35.	*	1	JAN	1910	231	47.	*	2	JAN	0535	356	1.	*	2	JAN	1600	481	0.
1	JAN	0850	107	36.	*	1	JAN	1915	232	46.	*	2	JAN	0540	357	1.	*	2	JAN	1605	482	0.
1	JAN	0855	108	36.	*	1	JAN	1920	233	45.	*	2	JAN	0545	358	0.	*	2	JAN	1610	483	0.
1	JAN	0900	109	37.	*	1	JAN	1925	234	44.	*	2	JAN	0550	359	0.	*	2	JAN	1615	484	0.
1	JAN	0905	110	38.	*	1	JAN	1930	235	43.	*	2	JAN	0555	360	0.	*	2	JAN	1620	485	0.
1	JAN	0910	111	38.	*	1	JAN	1935	236	42.	*	2	JAN	0600	361	0.	*	2	JAN	1625	486	0.
1	JAN	0915	112	39.	*	1	JAN	1940	237	41.	*	2	JAN	0605	362	0.	*	2	JAN	1630	487	0.
1	JAN	0920	113	40.	*	1	JAN	1945	238	40.	*	2	JAN	0610	363	0.	*	2	JAN	1635	488	0.
1	JAN	0925	114	41.	*	1	JAN	1950	239	40.	*	2	JAN	0615	364	0.	*	2	JAN	1640	489	0.
1	JAN	0930	115	41.	*	1	JAN	1955	240	39.	*	2	JAN	0620	365	0.	*	2	JAN	1645	490	0.
1	JAN	0935	116	42.	*	1	JAN	2000	241	39.	*	2	JAN	0625	366	0.	*	2	JAN	1650	491	0.
1	JAN	0940	117	43.	*	1	JAN	2005	242	38.	*	2	JAN	0630	367	0.	*	2	JAN	1655	492	0.
1	JAN	0945	118	44.	*	1	JAN	2010	243	38.	*	2	JAN	0635	368	0.	*	2	JAN	1700	493	0.
1	JAN	0950	119	45.	*	1	JAN	2015	244	38.	*	2	JAN	0640	369	0.	*	2	JAN	1705	494	0.
1	JAN	0955	120	45.	*	1	JAN	2020	245	37.	*	2	JAN	0645	370	0.	*	2	JAN	1710	495	0.
1	JAN	1000	121	46.	*	1	JAN	2025	246	37.	*	2	JAN	0650	371	0.	*	2	JAN	1715	496	0.
1	JAN	1005	122	47.	*	1	JAN	2030	247	36.	*	2	JAN	0655	372	0.	*	2	JAN	1720	497	0.
1	JAN	1010	123	48.	*	1	JAN	2035	248	35.	*	2	JAN	0700	373	0.	*	2	JAN	1725	498	0.
1	JAN	1015	124	49.	*	1	JAN	2040	249	35.	*	2	JAN	0705	374	0.	*	2	JAN	1730	499	0.
1	JAN	1020	125	51.	*	1	JAN	2045	250	34.	*	2	JAN	0710	375	0.	*	2	JAN	1735	500	0.

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 10141.	12.50		2058.	539.	311.	311.
		(INCHES)	1.722	1.804	1.806	1.806
		(AC-FT)	1020.	1069.	1070.	1070.

CUMULATIVE AREA = 11.11 SQ MI

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HYDROGRAPH AT C007
TRANSPOSITION AREA 10.0 SQ MI

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	*	1	JAN	1025	126	50.	*	1	JAN	2050	251	30.	*	2	JAN	0715	376	0.

1 JAN 0005	2	0.	*	1 JAN 1030	127	51.	*	1 JAN 2055	252	30.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	53.	*	1 JAN 2100	253	29.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	55.	*	1 JAN 2105	254	28.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	58.	*	1 JAN 2110	255	28.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	61.	*	1 JAN 2115	256	27.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	66.	*	1 JAN 2120	257	26.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	72.	*	1 JAN 2125	258	26.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	81.	*	1 JAN 2130	259	25.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	93.	*	1 JAN 2135	260	25.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	107.	*	1 JAN 2140	261	25.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	122.	*	1 JAN 2145	262	24.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	140.	*	1 JAN 2150	263	24.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	164.	*	1 JAN 2155	264	24.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	210.	*	1 JAN 2200	265	23.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	312.	*	1 JAN 2205	266	23.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	523.	*	1 JAN 2210	267	23.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	931.	*	1 JAN 2215	268	23.	*	2 JAN 0840	393	0.
1 JAN 0130	19	6.	*	1 JAN 1155	144	1690.	*	1 JAN 2220	269	23.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2933.	*	1 JAN 2225	270	23.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	4565.	*	1 JAN 2230	271	23.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	6195.	*	1 JAN 2235	272	22.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	7652.	*	1 JAN 2240	273	22.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	8797.	*	1 JAN 2245	274	22.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	9400.	*	1 JAN 2250	275	22.	*	2 JAN 0915	400	0.
1 JAN 0205	26	10.	*	1 JAN 1230	151	9721.	*	1 JAN 2255	276	22.	*	2 JAN 0920	401	0.
1 JAN 0210	27	11.	*	1 JAN 1235	152	9681.	*	1 JAN 2300	277	22.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	9301.	*	1 JAN 2305	278	22.	*	2 JAN 0930	403	0.
1 JAN 0220	29	12.	*	1 JAN 1245	154	8661.	*	1 JAN 2310	279	22.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	7854.	*	1 JAN 2315	280	22.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	7000.	*	1 JAN 2320	281	22.	*	2 JAN 0945	406	0.
1 JAN 0235	32	13.	*	1 JAN 1300	157	6144.	*	1 JAN 2325	282	21.	*	2 JAN 0950	407	0.
1 JAN 0240	33	14.	*	1 JAN 1305	158	5270.	*	1 JAN 2330	283	21.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	4475.	*	1 JAN 2335	284	21.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3821.	*	1 JAN 2340	285	21.	*	2 JAN 1005	410	0.
1 JAN 0255	36	15.	*	1 JAN 1320	161	3259.	*	1 JAN 2345	286	21.	*	2 JAN 1010	411	0.
1 JAN 0300	37	15.	*	1 JAN 1325	162	2771.	*	1 JAN 2350	287	21.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	2342.	*	1 JAN 2355	288	21.	*	2 JAN 1020	413	0.
1 JAN 0310	39	16.	*	1 JAN 1335	164	1973.	*	2 JAN 0000	289	21.	*	2 JAN 1025	414	0.
1 JAN 0315	40	16.	*	1 JAN 1340	165	1652.	*	2 JAN 0005	290	21.	*	2 JAN 1030	415	0.
1 JAN 0320	41	16.	*	1 JAN 1345	166	1409.	*	2 JAN 0010	291	21.	*	2 JAN 1035	416	0.
1 JAN 0325	42	17.	*	1 JAN 1350	167	1221.	*	2 JAN 0015	292	20.	*	2 JAN 1040	417	0.
1 JAN 0330	43	17.	*	1 JAN 1355	168	1074.	*	2 JAN 0020	293	20.	*	2 JAN 1045	418	0.
1 JAN 0335	44	17.	*	1 JAN 1400	169	947.	*	2 JAN 0025	294	20.	*	2 JAN 1050	419	0.
1 JAN 0340	45	17.	*	1 JAN 1405	170	840.	*	2 JAN 0030	295	20.	*	2 JAN 1055	420	0.
1 JAN 0345	46	18.	*	1 JAN 1410	171	748.	*	2 JAN 0035	296	19.	*	2 JAN 1100	421	0.
1 JAN 0350	47	18.	*	1 JAN 1415	172	667.	*	2 JAN 0040	297	19.	*	2 JAN 1105	422	0.
1 JAN 0355	48	18.	*	1 JAN 1420	173	599.	*	2 JAN 0045	298	19.	*	2 JAN 1110	423	0.
1 JAN 0400	49	18.	*	1 JAN 1425	174	539.	*	2 JAN 0050	299	18.	*	2 JAN 1115	424	0.
1 JAN 0405	50	19.	*	1 JAN 1430	175	485.	*	2 JAN 0055	300	18.	*	2 JAN 1120	425	0.
1 JAN 0410	51	19.	*	1 JAN 1435	176	439.	*	2 JAN 0100	301	17.	*	2 JAN 1125	426	0.
1 JAN 0415	52	19.	*	1 JAN 1440	177	402.	*	2 JAN 0105	302	17.	*	2 JAN 1130	427	0.
1 JAN 0420	53	19.	*	1 JAN 1445	178	367.	*	2 JAN 0110	303	16.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	335.	*	2 JAN 0115	304	15.	*	2 JAN 1140	429	0.
1 JAN 0430	55	20.	*	1 JAN 1455	180	306.	*	2 JAN 0120	305	15.	*	2 JAN 1145	430	0.
1 JAN 0435	56	20.	*	1 JAN 1500	181	281.	*	2 JAN 0125	306	14.	*	2 JAN 1150	431	0.
1 JAN 0440	57	20.	*	1 JAN 1505	182	260.	*	2 JAN 0130	307	13.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	240.	*	2 JAN 0135	308	12.	*	2 JAN 1200	433	0.
1 JAN 0450	59	21.	*	1 JAN 1515	184	222.	*	2 JAN 0140	309	12.	*	2 JAN 1205	434	0.
1 JAN 0455	60	21.	*	1 JAN 1520	185	205.	*	2 JAN 0145	310	11.	*	2 JAN 1210	435	0.
1 JAN 0500	61	21.	*	1 JAN 1525	186	190.	*	2 JAN 0150	311	11.	*	2 JAN 1215	436	0.
1 JAN 0505	62	22.	*	1 JAN 1530	187	177.	*	2 JAN 0155	312	10.	*	2 JAN 1220	437	0.
1 JAN 0510	63	22.	*	1 JAN 1535	188	166.	*	2 JAN 0200	313	9.	*	2 JAN 1225	438	0.
1 JAN 0515	64	22.	*	1 JAN 1540	189	156.	*	2 JAN 0205	314	9.	*	2 JAN 1230	439	0.
1 JAN 0520	65	23.	*	1 JAN 1545	190	148.	*	2 JAN 0210	315	8.	*	2 JAN 1235	440	0.
1 JAN 0525	66	23.	*	1 JAN 1550	191	140.	*	2 JAN 0215	316	8.	*	2 JAN 1240	441	0.
1 JAN 0530	67	24.	*	1 JAN 1555	192	133.	*	2 JAN 0220	317	7.	*	2 JAN 1245	442	0.
1 JAN 0535	68	24.	*	1 JAN 1600	193	126.	*	2 JAN 0225	318	7.	*	2 JAN 1250	443	0.
1 JAN 0540	69	25.	*	1 JAN 1605	194	120.	*	2 JAN 0230	319	7.	*	2 JAN 1255	444	0.
1 JAN 0545	70	25.	*	1 JAN 1610	195	114.	*	2 JAN 0235	320	6.	*	2 JAN 1300	445	0.
1 JAN 0550	71	25.	*	1 JAN 1615	196	108.	*	2 JAN 0240	321	6.	*	2 JAN 1305	446	0.
1 JAN 0555	72	25.	*	1 JAN 1620	197	103.	*	2 JAN 0245	322	5.	*	2 JAN 1310	447	0.
1 JAN 0600	73	25.	*	1 JAN 1625	198	99.	*	2 JAN 0250	323	5.	*	2 JAN 1315	448	0.
1 JAN 0605	74	25.	*	1 JAN 1630	199	95.	*	2 JAN 0255	324	5.	*	2 JAN 1320	449	0.
1 JAN 0610	75	25.	*	1 JAN 1635	200	92.	*	2 JAN 0300	325	4.	*	2 JAN 1325	450	0.
1 JAN 0615	76	26.	*	1 JAN 1640	201	89.	*	2 JAN 0305	326	4.	*	2 JAN 1330	451	0.
1 JAN 0620	77	26.	*	1 JAN 1645	202	87.	*	2 JAN 0310	327	4.	*	2 JAN 1335	452	0.
1 JAN 0625	78	26.	*	1 JAN 1650	203	84.	*	2 JAN 0315	328	4.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	82.	*	2 JAN 0320	329	3.	*	2 JAN 1345	454	0.
1 JAN 0635	80	27.	*	1 JAN 1700	205	80.	*	2 JAN 0325	330	3.	*	2 JAN 1350	455	0.
1 JAN 0640	81	27.	*	1 JAN 1705	206	79.	*	2 JAN 0330	331	3.	*	2 JAN 1355	456	0.
1 JAN 0645	82	27.	*	1 JAN 1710	207	77.	*	2 JAN 0335	332	3.	*	2 JAN 1400	457	0.
1 JAN 0650	83	27.	*	1 JAN 1715	208	75.	*	2 JAN 0340	333	3.	*	2 JAN 1405	458	0.
1 JAN 0655	84	28.	*	1 JAN 1720	209	74.	*	2 JAN 0345	334	2.	*	2 JAN 1410	459	0.
1 JAN 0700	85	28.	*	1 JAN 1725	210	72.	*	2 JAN 0350	335	2.	*	2 JAN 1415	460	0.
1 JAN 0705	86	29.	*	1 JAN 1730	211	71.	*	2 JAN 0355	336	2.	*	2 JAN 1420	461	0.
1 JAN 0710	87	29.	*	1 JAN 1735	212	69.	*	2 JAN 0400	337	2.	*	2 JAN 1425	462	0.
1 JAN 0715	88	29.	*	1 JAN 1740	213	68.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.
1 JAN 0720	89	30.	*	1 JAN 1745	214	66.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.
1 JAN 0725	90	30.	*	1 JAN 1750	215	64.	*	2 JAN 0415	340	2.	*	2 JAN 1440	465	0.
1 JAN 0730	91	30.	*	1 JAN 1755	216	63.	*	2 JAN 0420	341	2.	*	2 JAN 1445	466	0.
1 JAN 0735	92	31.	*	1 JAN 1800	217	62.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	31.	*	1 JAN 1805	218	60.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	31.	*	1 JAN 1810	219	59.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	31.	*	1 JAN 1815	220	58.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.
1 JAN 0755	96	31.	*	1 JAN 1820	221	57.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.
1 JAN 0800	97	32.	*	1 JAN 1825	222	56.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.
1 JAN 0805	98	32.	*	1 JAN 1830	223	55.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.
1 JAN 0810	99	32.	*	1 JAN 1835	224	53.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.
1 JAN 0815	100	32.	*	1 JAN 1840	225	52.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.
1 JAN 0820	101	32.	*	1 JAN 1845	226	51.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.
1 JAN 0825	102	33.	*	1 JAN 1850	227	49.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.
1 JAN 0830	103	33.	*	1 JAN 1855	228	48.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.
1 JAN 0835	104	33.	*	1 JAN 1900	229	46.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.
1 JAN 0840	105	34.	*	1 JAN 1905	230	45.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	34.	*	1 JAN 1910	231	44.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	35.	*	1 JAN 1915	232	42.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.

1 JAN 0855	108	35.	*	1 JAN 1920	233	41.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	36.	*	1 JAN 1925	234	40.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	37.	*	1 JAN 1930	235	39.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	37.	*	1 JAN 1935	236	38.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	38.	*	1 JAN 1940	237	38.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	39.	*	1 JAN 1945	238	37.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	40.	*	1 JAN 1950	239	37.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	40.	*	1 JAN 1955	240	36.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	41.	*	1 JAN 2000	241	36.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	42.	*	1 JAN 2005	242	35.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	42.	*	1 JAN 2010	243	35.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	43.	*	1 JAN 2015	244	34.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	44.	*	1 JAN 2020	245	34.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	45.	*	1 JAN 2025	246	34.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	46.	*	1 JAN 2030	247	33.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	47.	*	1 JAN 2035	248	32.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	48.	*	1 JAN 2040	249	32.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	49.	*	1 JAN 2045	250	31.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

****

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 9721.	12.50	1970.	516.	298.	298.
		(INCHES) 1.648	1.726	1.729	1.729
		(AC-FT) 977.	1023.	1024.	1024.

CUMULATIVE AREA = 11.11 SQ MI

****

HYDROGRAPH AT C007
TRANSPOSITION AREA 30.0 SQ MI

****

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	47.	*	1 JAN 2050	251	27.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	48.	*	1 JAN 2055	252	26.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	50.	*	1 JAN 2100	253	26.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	51.	*	1 JAN 2105	254	25.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	53.	*	1 JAN 2110	255	25.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	56.	*	1 JAN 2115	256	24.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	59.	*	1 JAN 2120	257	24.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	63.	*	1 JAN 2125	258	24.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	69.	*	1 JAN 2130	259	23.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	78.	*	1 JAN 2135	260	23.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	91.	*	1 JAN 2140	261	23.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	104.	*	1 JAN 2145	262	23.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	120.	*	1 JAN 2150	263	23.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	139.	*	1 JAN 2155	264	23.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	178.	*	1 JAN 2200	265	22.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	273.	*	1 JAN 2205	266	22.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	463.	*	1 JAN 2210	267	22.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	831.	*	1 JAN 2215	268	22.	*	2 JAN 0840	393	0.
1 JAN 0130	19	5.	*	1 JAN 1155	144	1530.	*	1 JAN 2220	269	22.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2693.	*	1 JAN 2225	270	22.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	4254.	*	1 JAN 2230	271	22.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	5819.	*	1 JAN 2235	272	22.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	7193.	*	1 JAN 2240	273	21.	*	2 JAN 0905	398	0.
1 JAN 0155	24	8.	*	1 JAN 1220	149	8277.	*	1 JAN 2245	274	21.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	8867.	*	1 JAN 2250	275	21.	*	2 JAN 0915	400	0.
1 JAN 0205	26	10.	*	1 JAN 1230	151	9130.	*	1 JAN 2255	276	21.	*	2 JAN 0920	401	0.
1 JAN 0210	27	10.	*	1 JAN 1235	152	9091.	*	1 JAN 2300	277	21.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	8743.	*	1 JAN 2305	278	21.	*	2 JAN 0930	403	0.
1 JAN 0220	29	11.	*	1 JAN 1245	154	8151.	*	1 JAN 2310	279	21.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	7396.	*	1 JAN 2315	280	21.	*	2 JAN 0940	405	0.
1 JAN 0230	31	12.	*	1 JAN 1255	156	6589.	*	1 JAN 2320	281	21.	*	2 JAN 0945	406	0.
1 JAN 0235	32	13.	*	1 JAN 1300	157	5758.	*	1 JAN 2325	282	21.	*	2 JAN 0950	407	0.
1 JAN 0240	33	13.	*	1 JAN 1305	158	4908.	*	1 JAN 2330	283	20.	*	2 JAN 0955	408	0.
1 JAN 0245	34	13.	*	1 JAN 1310	159	4198.	*	1 JAN 2335	284	20.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3593.	*	1 JAN 2340	285	20.	*	2 JAN 1005	410	0.
1 JAN 0255	36	14.	*	1 JAN 1320	161	3066.	*	1 JAN 2345	286	20.	*	2 JAN 1010	411	0.
1 JAN 0300	37	14.	*	1 JAN 1325	162	2606.	*	1 JAN 2350	287	20.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	2199.	*	1 JAN 2355	288	20.	*	2 JAN 1020	413	0.
1 JAN 0310	39	15.	*	1 JAN 1335	164	1846.	*	2 JAN 0000	289	20.	*	2 JAN 1025	414	0.
1 JAN 0315	40	15.	*	1 JAN 1340	165	1553.	*	2 JAN 0005	290	20.	*	2 JAN 1030	415	0.
1 JAN 0320	41	16.	*	1 JAN 1345	166	1330.	*	2 JAN 0010	291	20.	*	2 JAN 1035	416	0.
1 JAN 0325	42	16.	*	1 JAN 1350	167	1158.	*	2 JAN 0015	292	20.	*	2 JAN 1040	417	0.
1 JAN 0330	43	16.	*	1 JAN 1355	168	1018.	*	2 JAN 0020	293	19.	*	2 JAN 1045	418	0.
1 JAN 0335	44	16.	*	1 JAN 1400	169	897.	*	2 JAN 0025	294	19.	*	2 JAN 1050	419	0.
1 JAN 0340	45	17.	*	1 JAN 1405	170	797.	*	2 JAN 0030	295	19.	*	2 JAN 1055	420	0.
1 JAN 0345	46	17.	*	1 JAN 1410	171	707.	*	2 JAN 0035	296	19.	*	2 JAN 1100	421	0.
1 JAN 0350	47	17.	*	1 JAN 1415	172	631.	*	2 JAN 0040	297	18.	*	2 JAN 1105	422	0.
1 JAN 0355	48	17.	*	1 JAN 1420	173	566.	*	2 JAN 0045	298	18.	*	2 JAN 1110	423	0.
1 JAN 0400	49	17.	*	1 JAN 1425	174	507.	*	2 JAN 0050	299	17.	*	2 JAN 1115	424	0.
1 JAN 0405	50	18.	*	1 JAN 1430	175	455.	*	2 JAN 0055	300	17.	*	2 JAN 1120	425	0.
1 JAN 0410	51	18.	*	1 JAN 1435	176	413.	*	2 JAN 0100	301	16.	*	2 JAN 1125	426	0.
1 JAN 0415	52	18.	*	1 JAN 1440	177	377.	*	2 JAN 0105	302	16.	*	2 JAN 1130	427	0.
1 JAN 0420	53	18.	*	1 JAN 1445	178	343.	*	2 JAN 0110	303	15.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	312.	*	2 JAN 0115	304	15.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	285.	*	2 JAN 0120	305	14.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	263.	*	2 JAN 0125	306	13.	*	2 JAN 1150	431	0.
1 JAN 0440	57	19.	*	1 JAN 1505	182	242.	*	2 JAN 0130	307	13.	*	2 JAN 1155	432	0.
1 JAN 0445	58	19.	*	1 JAN 1510	183	223.	*	2 JAN 0135	308	12.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	205.	*	2 JAN 0140	309	11.	*	2 JAN 1205	434	0.
1 JAN 0455	60	20.	*	1 JAN 1520	185	189.	*	2 JAN 0145	310	11.	*	2 JAN 1210	435	0.
1 JAN 0500	61	20.	*	1 JAN 1525	186	175.	*	2 JAN 0150	311	10.	*	2 JAN 1215	436	0.
1 JAN 0505	62	21.	*	1 JAN 1530	187	163.	*	2 JAN 0155	312	10.	*	2 JAN 1220	437	0.
1 JAN 0510	63	21.	*	1 JAN 1535	188	153.	*	2 JAN 0200	313	9.	*	2 JAN 1225	438	0.
1 JAN 0515	64	21.	*	1 JAN 1540	189	145.	*	2 JAN 0205	314	8.	*	2 JAN 1230	439	0.
1 JAN 0520	65	21.	*	1 JAN 1545	190	137.	*	2 JAN 0210	315	8.	*	2 JAN 1235	440	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0525	66	22.	1	JAN	1550	191	129.	2	JAN	0215	316	7.	2	JAN	1240	441	0.
1	JAN	0530	67	22.	1	JAN	1555	192	122.	2	JAN	0220	317	7.	2	JAN	1245	442	0.
1	JAN	0535	68	22.	1	JAN	1600	193	115.	2	JAN	0225	318	7.	2	JAN	1250	443	0.
1	JAN	0540	69	23.	1	JAN	1605	194	109.	2	JAN	0230	319	6.	2	JAN	1255	444	0.
1	JAN	0545	70	23.	1	JAN	1610	195	104.	2	JAN	0235	320	6.	2	JAN	1300	445	0.
1	JAN	0550	71	24.	1	JAN	1615	196	99.	2	JAN	0240	321	6.	2	JAN	1305	446	0.
1	JAN	0555	72	24.	1	JAN	1620	197	94.	2	JAN	0245	322	5.	2	JAN	1310	447	0.
1	JAN	0600	73	24.	1	JAN	1625	198	90.	2	JAN	0250	323	5.	2	JAN	1315	448	0.
1	JAN	0605	74	24.	1	JAN	1630	199	87.	2	JAN	0255	324	5.	2	JAN	1320	449	0.
1	JAN	0610	75	24.	1	JAN	1635	200	84.	2	JAN	0300	325	4.	2	JAN	1325	450	0.
1	JAN	0615	76	24.	1	JAN	1640	201	81.	2	JAN	0305	326	4.	2	JAN	1330	451	0.
1	JAN	0620	77	25.	1	JAN	1645	202	79.	2	JAN	0310	327	4.	2	JAN	1335	452	0.
1	JAN	0625	78	25.	1	JAN	1650	203	77.	2	JAN	0315	328	4.	2	JAN	1340	453	0.
1	JAN	0630	79	25.	1	JAN	1655	204	75.	2	JAN	0320	329	3.	2	JAN	1345	454	0.
1	JAN	0635	80	25.	1	JAN	1700	205	73.	2	JAN	0325	330	3.	2	JAN	1350	455	0.
1	JAN	0640	81	26.	1	JAN	1705	206	72.	2	JAN	0330	331	3.	2	JAN	1355	456	0.
1	JAN	0645	82	26.	1	JAN	1710	207	71.	2	JAN	0335	332	3.	2	JAN	1400	457	0.
1	JAN	0650	83	26.	1	JAN	1715	208	70.	2	JAN	0340	333	3.	2	JAN	1405	458	0.
1	JAN	0655	84	27.	1	JAN	1720	209	68.	2	JAN	0345	334	2.	2	JAN	1410	459	0.
1	JAN	0700	85	27.	1	JAN	1725	210	66.	2	JAN	0350	335	2.	2	JAN	1415	460	0.
1	JAN	0705	86	27.	1	JAN	1730	211	65.	2	JAN	0355	336	2.	2	JAN	1420	461	0.
1	JAN	0710	87	28.	1	JAN	1735	212	63.	2	JAN	0400	337	2.	2	JAN	1425	462	0.
1	JAN	0715	88	28.	1	JAN	1740	213	61.	2	JAN	0405	338	2.	2	JAN	1430	463	0.
1	JAN	0720	89	28.	1	JAN	1745	214	60.	2	JAN	0410	339	2.	2	JAN	1435	464	0.
1	JAN	0725	90	29.	1	JAN	1750	215	58.	2	JAN	0415	340	2.	2	JAN	1440	465	0.
1	JAN	0730	91	29.	1	JAN	1755	216	57.	2	JAN	0420	341	1.	2	JAN	1445	466	0.
1	JAN	0735	92	29.	1	JAN	1800	217	56.	2	JAN	0425	342	1.	2	JAN	1450	467	0.
1	JAN	0740	93	30.	1	JAN	1805	218	55.	2	JAN	0430	343	1.	2	JAN	1455	468	0.
1	JAN	0745	94	30.	1	JAN	1810	219	54.	2	JAN	0435	344	1.	2	JAN	1500	469	0.
1	JAN	0750	95	30.	1	JAN	1815	220	52.	2	JAN	0440	345	1.	2	JAN	1505	470	0.
1	JAN	0755	96	30.	1	JAN	1820	221	51.	2	JAN	0445	346	1.	2	JAN	1510	471	0.
1	JAN	0800	97	30.	1	JAN	1825	222	50.	2	JAN	0450	347	1.	2	JAN	1515	472	0.
1	JAN	0805	98	30.	1	JAN	1830	223	49.	2	JAN	0455	348	1.	2	JAN	1520	473	0.
1	JAN	0810	99	31.	1	JAN	1835	224	48.	2	JAN	0500	349	1.	2	JAN	1525	474	0.
1	JAN	0815	100	31.	1	JAN	1840	225	47.	2	JAN	0505	350	1.	2	JAN	1530	475	0.
1	JAN	0820	101	31.	1	JAN	1845	226	46.	2	JAN	0510	351	1.	2	JAN	1535	476	0.
1	JAN	0825	102	31.	1	JAN	1850	227	44.	2	JAN	0515	352	1.	2	JAN	1540	477	0.
1	JAN	0830	103	31.	1	JAN	1855	228	43.	2	JAN	0520	353	1.	2	JAN	1545	478	0.
1	JAN	0835	104	32.	1	JAN	1900	229	41.	2	JAN	0525	354	1.	2	JAN	1550	479	0.
1	JAN	0840	105	32.	1	JAN	1905	230	40.	2	JAN	0530	355	1.	2	JAN	1555	480	0.
1	JAN	0845	106	33.	1	JAN	1910	231	39.	2	JAN	0535	356	1.	2	JAN	1600	481	0.
1	JAN	0850	107	33.	1	JAN	1915	232	38.	2	JAN	0540	357	0.	2	JAN	1605	482	0.
1	JAN	0855	108	34.	1	JAN	1920	233	37.	2	JAN	0545	358	0.	2	JAN	1610	483	0.
1	JAN	0900	109	34.	1	JAN	1925	234	36.	2	JAN	0550	359	0.	2	JAN	1615	484	0.
1	JAN	0905	110	35.	1	JAN	1930	235	35.	2	JAN	0555	360	0.	2	JAN	1620	485	0.
1	JAN	0910	111	36.	1	JAN	1935	236	34.	2	JAN	0600	361	0.	2	JAN	1625	486	0.
1	JAN	0915	112	36.	1	JAN	1940	237	33.	2	JAN	0605	362	0.	2	JAN	1630	487	0.
1	JAN	0920	113	37.	1	JAN	1945	238	33.	2	JAN	0610	363	0.	2	JAN	1635	488	0.
1	JAN	0925	114	38.	1	JAN	1950	239	32.	2	JAN	0615	364	0.	2	JAN	1640	489	0.
1	JAN	0930	115	38.	1	JAN	1955	240	32.	2	JAN	0620	365	0.	2	JAN	1645	490	0.
1	JAN	0935	116	39.	1	JAN	2000	241	31.	2	JAN	0625	366	0.	2	JAN	1650	491	0.
1	JAN	0940	117	40.	1	JAN	2005	242	31.	2	JAN	0630	367	0.	2	JAN	1655	492	0.
1	JAN	0945	118	41.	1	JAN	2010	243	30.	2	JAN	0635	368	0.	2	JAN	1700	493	0.
1	JAN	0950	119	41.	1	JAN	2015	244	30.	2	JAN	0640	369	0.	2	JAN	1705	494	0.
1	JAN	0955	120	42.	1	JAN	2020	245	30.	2	JAN	0645	370	0.	2	JAN	1710	495	0.
1	JAN	1000	121	43.	1	JAN	2025	246	29.	2	JAN	0650	371	0.	2	JAN	1715	496	0.
1	JAN	1005	122	44.	1	JAN	2030	247	29.	2	JAN	0655	372	0.	2	JAN	1720	497	0.
1	JAN	1010	123	45.	1	JAN	2035	248	28.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	45.	1	JAN	2040	249	28.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	46.	1	JAN	2045	250	27.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)					
		(CFS)				
9130.	12.50		1846.	483.	279.	279.
		(INCHES)	1.545	1.617	1.620	1.620
		(AC-FT)	915.	958.	960.	960.

CUMULATIVE AREA = 11.11 SQ MI

****

HYDROGRAPH AT C007
TRANSPOSITION AREA 60.0 SQ MI

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	45.	1	JAN	2050	251	24.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	46.	1	JAN	2055	252	24.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	47.	1	JAN	2100	253	23.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	48.	1	JAN	2105	254	23.	2	JAN	0730	379	0.
1	JAN	0020	5	0.	1	JAN	1045	130	50.	1	JAN	2110	255	23.	2	JAN	0735	380	0.
1	JAN	0025	6	0.	1	JAN	1050	131	52.	1	JAN	2115	256	23.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	54.	1	JAN	2120	257	23.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	57.	1	JAN	2125	258	22.	2	JAN	0750	383	0.
1	JAN	0040	9	1.	1	JAN	1105	134	62.	1	JAN	2130	259	22.	2	JAN	0755	384	0.
1	JAN	0045	10	1.	1	JAN	1110	135	68.	1	JAN	2135	260	22.	2	JAN	0800	385	0.
1	JAN	0050	11	1.	1	JAN	1115	136	76.	1	JAN	2140	261	22.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	89.	1	JAN	2145	262	22.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	103.	1	JAN	2150	263	22.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	120.	1	JAN	2155	264	22.	2	JAN	0820	389	0.
1	JAN	0110	15	3.	1	JAN	1135	140	153.	1	JAN	2200	265	21.	2	JAN	0825	390	0.
1	JAN	0115	16	3.	1	JAN	1140	141	235.	1	JAN	2205	266	21.	2	JAN	0830	391	0.
1	JAN	0120	17	4.	1	JAN	1145	142	406.	1	JAN	2210	267	21.	2	JAN	0835	392	0.
1	JAN	0125	18	4.	1	JAN	1150	143	736.	1	JAN	2215	268	21.	2	JAN	0840	393	0.
1	JAN	0130	19	5.	1	JAN	1155	144	1375.	1	JAN	2220	269	21.	2	JAN	0845	394	0.
1	JAN	0135	20	6.	1	JAN	1200	145	2453.	1	JAN	2225	270	21.	2	JAN	0850	395	0.
1	JAN	0140	21	6.	1	JAN	1205	146	3933.	1	JAN	2230	271	21.	2	JAN	0855	396	0.
1	JAN	0145	22	7.	1	JAN	1210	147	5440.	1	JAN	2235	272	20.	2	JAN	0900	397	0.
1	JAN	0150	23	7.	1	JAN	1215	148	6730.	1	JAN	2240	273	20.	2	JAN	0905	398	0.

1 JAN	0155	24	8.	*	1 JAN	1220	149	7749.	*	1 JAN	2245	274	20.	*	2 JAN	0910	399	0.
1 JAN	0200	25	9.	*	1 JAN	1225	150	8335.	*	1 JAN	2250	275	20.	*	2 JAN	0915	400	0.
1 JAN	0205	26	9.	*	1 JAN	1230	151	8539.	*	1 JAN	2255	276	20.	*	2 JAN	0920	401	0.
1 JAN	0210	27	10.	*	1 JAN	1235	152	8505.	*	1 JAN	2300	277	20.	*	2 JAN	0925	402	0.
1 JAN	0215	28	10.	*	1 JAN	1240	153	8191.	*	1 JAN	2305	278	20.	*	2 JAN	0930	403	0.
1 JAN	0220	29	11.	*	1 JAN	1245	154	7643.	*	1 JAN	2310	279	20.	*	2 JAN	0935	404	0.
1 JAN	0225	30	11.	*	1 JAN	1250	155	6946.	*	1 JAN	2315	280	20.	*	2 JAN	0940	405	0.
1 JAN	0230	31	11.	*	1 JAN	1255	156	6176.	*	1 JAN	2320	281	20.	*	2 JAN	0945	406	0.
1 JAN	0235	32	12.	*	1 JAN	1300	157	5352.	*	1 JAN	2325	282	20.	*	2 JAN	0950	407	0.
1 JAN	0240	33	12.	*	1 JAN	1305	158	4576.	*	1 JAN	2330	283	19.	*	2 JAN	0955	408	0.
1 JAN	0245	34	13.	*	1 JAN	1310	159	3929.	*	1 JAN	2335	284	19.	*	2 JAN	1000	409	0.
1 JAN	0250	35	13.	*	1 JAN	1315	160	3370.	*	1 JAN	2340	285	19.	*	2 JAN	1005	410	0.
1 JAN	0255	36	13.	*	1 JAN	1320	161	2873.	*	1 JAN	2345	286	19.	*	2 JAN	1010	411	0.
1 JAN	0300	37	14.	*	1 JAN	1325	162	2440.	*	1 JAN	2350	287	19.	*	2 JAN	1015	412	0.
1 JAN	0305	38	14.	*	1 JAN	1330	163	2057.	*	1 JAN	2355	288	19.	*	2 JAN	1020	413	0.
1 JAN	0310	39	14.	*	1 JAN	1335	164	1722.	*	2 JAN	0000	289	19.	*	2 JAN	1025	414	0.
1 JAN	0315	40	15.	*	1 JAN	1340	165	1460.	*	2 JAN	0005	290	19.	*	2 JAN	1030	415	0.
1 JAN	0320	41	15.	*	1 JAN	1345	166	1256.	*	2 JAN	0010	291	19.	*	2 JAN	1035	416	0.
1 JAN	0325	42	15.	*	1 JAN	1350	167	1097.	*	2 JAN	0015	292	19.	*	2 JAN	1040	417	0.
1 JAN	0330	43	15.	*	1 JAN	1355	168	962.	*	2 JAN	0020	293	18.	*	2 JAN	1045	418	0.
1 JAN	0335	44	16.	*	1 JAN	1400	169	849.	*	2 JAN	0025	294	18.	*	2 JAN	1050	419	0.
1 JAN	0340	45	16.	*	1 JAN	1405	170	751.	*	2 JAN	0030	295	18.	*	2 JAN	1055	420	0.
1 JAN	0345	46	16.	*	1 JAN	1410	171	667.	*	2 JAN	0035	296	18.	*	2 JAN	1100	421	0.
1 JAN	0350	47	16.	*	1 JAN	1415	172	596.	*	2 JAN	0040	297	17.	*	2 JAN	1105	422	0.
1 JAN	0355	48	16.	*	1 JAN	1420	173	531.	*	2 JAN	0045	298	17.	*	2 JAN	1110	423	0.
1 JAN	0400	49	17.	*	1 JAN	1425	174	474.	*	2 JAN	0050	299	17.	*	2 JAN	1115	424	0.
1 JAN	0405	50	17.	*	1 JAN	1430	175	427.	*	2 JAN	0055	300	16.	*	2 JAN	1120	425	0.
1 JAN	0410	51	17.	*	1 JAN	1435	176	388.	*	2 JAN	0100	301	16.	*	2 JAN	1125	426	0.
1 JAN	0415	52	17.	*	1 JAN	1440	177	351.	*	2 JAN	0105	302	15.	*	2 JAN	1130	427	0.
1 JAN	0420	53	18.	*	1 JAN	1445	178	318.	*	2 JAN	0110	303	15.	*	2 JAN	1135	428	0.
1 JAN	0425	54	18.	*	1 JAN	1450	179	289.	*	2 JAN	0115	304	14.	*	2 JAN	1140	429	0.
1 JAN	0430	55	18.	*	1 JAN	1455	180	266.	*	2 JAN	0120	305	13.	*	2 JAN	1145	430	0.
1 JAN	0435	56	18.	*	1 JAN	1500	181	245.	*	2 JAN	0125	306	13.	*	2 JAN	1150	431	0.
1 JAN	0440	57	18.	*	1 JAN	1505	182	224.	*	2 JAN	0130	307	12.	*	2 JAN	1155	432	0.
1 JAN	0445	58	19.	*	1 JAN	1510	183	205.	*	2 JAN	0135	308	11.	*	2 JAN	1200	433	0.
1 JAN	0450	59	19.	*	1 JAN	1515	184	188.	*	2 JAN	0140	309	11.	*	2 JAN	1205	434	0.
1 JAN	0455	60	19.	*	1 JAN	1520	185	173.	*	2 JAN	0145	310	10.	*	2 JAN	1210	435	0.
1 JAN	0500	61	19.	*	1 JAN	1525	186	161.	*	2 JAN	0150	311	10.	*	2 JAN	1215	436	0.
1 JAN	0505	62	20.	*	1 JAN	1530	187	151.	*	2 JAN	0155	312	9.	*	2 JAN	1220	437	0.
1 JAN	0510	63	20.	*	1 JAN	1535	188	142.	*	2 JAN	0200	313	9.	*	2 JAN	1225	438	0.
1 JAN	0515	64	20.	*	1 JAN	1540	189	133.	*	2 JAN	0205	314	8.	*	2 JAN	1230	439	0.
1 JAN	0520	65	20.	*	1 JAN	1545	190	125.	*	2 JAN	0210	315	8.	*	2 JAN	1235	440	0.
1 JAN	0525	66	21.	*	1 JAN	1550	191	118.	*	2 JAN	0215	316	7.	*	2 JAN	1240	441	0.
1 JAN	0530	67	21.	*	1 JAN	1555	192	111.	*	2 JAN	0220	317	7.	*	2 JAN	1245	442	0.
1 JAN	0535	68	21.	*	1 JAN	1600	193	105.	*	2 JAN	0225	318	6.	*	2 JAN	1250	443	0.
1 JAN	0540	69	21.	*	1 JAN	1605	194	99.	*	2 JAN	0230	319	6.	*	2 JAN	1255	444	0.
1 JAN	0545	70	22.	*	1 JAN	1610	195	94.	*	2 JAN	0235	320	6.	*	2 JAN	1300	445	0.
1 JAN	0550	71	22.	*	1 JAN	1615	196	89.	*	2 JAN	0240	321	5.	*	2 JAN	1305	446	0.
1 JAN	0555	72	22.	*	1 JAN	1620	197	85.	*	2 JAN	0245	322	5.	*	2 JAN	1310	447	0.
1 JAN	0600	73	22.	*	1 JAN	1625	198	81.	*	2 JAN	0250	323	5.	*	2 JAN	1315	448	0.
1 JAN	0605	74	23.	*	1 JAN	1630	199	78.	*	2 JAN	0255	324	4.	*	2 JAN	1320	449	0.
1 JAN	0610	75	23.	*	1 JAN	1635	200	76.	*	2 JAN	0300	325	4.	*	2 JAN	1325	450	0.
1 JAN	0615	76	23.	*	1 JAN	1640	201	74.	*	2 JAN	0305	326	4.	*	2 JAN	1330	451	0.
1 JAN	0620	77	23.	*	1 JAN	1645	202	72.	*	2 JAN	0310	327	4.	*	2 JAN	1335	452	0.
1 JAN	0625	78	24.	*	1 JAN	1650	203	70.	*	2 JAN	0315	328	3.	*	2 JAN	1340	453	0.
1 JAN	0630	79	24.	*	1 JAN	1655	204	69.	*	2 JAN	0320	329	3.	*	2 JAN	1345	454	0.
1 JAN	0635	80	24.	*	1 JAN	1700	205	67.	*	2 JAN	0325	330	3.	*	2 JAN	1350	455	0.
1 JAN	0640	81	24.	*	1 JAN	1705	206	66.	*	2 JAN	0330	331	3.	*	2 JAN	1355	456	0.
1 JAN	0645	82	25.	*	1 JAN	1710	207	64.	*	2 JAN	0335	332	3.	*	2 JAN	1400	457	0.
1 JAN	0650	83	25.	*	1 JAN	1715	208	63.	*	2 JAN	0340	333	2.	*	2 JAN	1405	458	0.
1 JAN	0655	84	25.	*	1 JAN	1720	209	61.	*	2 JAN	0345	334	2.	*	2 JAN	1410	459	0.
1 JAN	0700	85	26.	*	1 JAN	1725	210	60.	*	2 JAN	0350	335	2.	*	2 JAN	1415	460	0.
1 JAN	0705	86	26.	*	1 JAN	1730	211	58.	*	2 JAN	0355	336	2.	*	2 JAN	1420	461	0.
1 JAN	0710	87	26.	*	1 JAN	1735	212	57.	*	2 JAN	0400	337	2.	*	2 JAN	1425	462	0.
1 JAN	0715	88	27.	*	1 JAN	1740	213	55.	*	2 JAN	0405	338	2.	*	2 JAN	1430	463	0.
1 JAN	0720	89	27.	*	1 JAN	1745	214	54.	*	2 JAN	0410	339	2.	*	2 JAN	1435	464	0.
1 JAN	0725	90	27.	*	1 JAN	1750	215	52.	*	2 JAN	0415	340	2.	*	2 JAN	1440	465	0.
1 JAN	0730	91	28.	*	1 JAN	1755	216	51.	*	2 JAN	0420	341	1.	*	2 JAN	1445	466	0.
1 JAN	0735	92	28.	*	1 JAN	1800	217	50.	*	2 JAN	0425	342	1.	*	2 JAN	1450	467	0.
1 JAN	0740	93	28.	*	1 JAN	1805	218	49.	*	2 JAN	0430	343	1.	*	2 JAN	1455	468	0.
1 JAN	0745	94	28.	*	1 JAN	1810	219	48.	*	2 JAN	0435	344	1.	*	2 JAN	1500	469	0.
1 JAN	0750	95	29.	*	1 JAN	1815	220	47.	*	2 JAN	0440	345	1.	*	2 JAN	1505	470	0.
1 JAN	0755	96	29.	*	1 JAN	1820	221	46.	*	2 JAN	0445	346	1.	*	2 JAN	1510	471	0.
1 JAN	0800	97	29.	*	1 JAN	1825	222	45.	*	2 JAN	0450	347	1.	*	2 JAN	1515	472	0.
1 JAN	0805	98	29.	*	1 JAN	1830	223	44.	*	2 JAN	0455	348	1.	*	2 JAN	1520	473	0.
1 JAN	0810	99	29.	*	1 JAN	1835	224	43.	*	2 JAN	0500	349	1.	*	2 JAN	1525	474	0.
1 JAN	0815	100	29.	*	1 JAN	1840	225	42.	*	2 JAN	0505	350	1.	*	2 JAN	1530	475	0.
1 JAN	0820	101	30.	*	1 JAN	1845	226	41.	*	2 JAN	0510	351	1.	*	2 JAN	1535	476	0.
1 JAN	0825	102	30.	*	1 JAN	1850	227	39.	*	2 JAN	0515	352	1.	*	2 JAN	1540	477	0.
1 JAN	0830	103	30.	*	1 JAN	1855	228	38.	*	2 JAN	0520	353	1.	*	2 JAN	1545	478	0.
1 JAN	0835	104	30.	*	1 JAN	1900	229	37.	*	2 JAN	0525	354	1.	*	2 JAN	1550	479	0.
1 JAN	0840	105	31.	*	1 JAN	1905	230	36.	*	2 JAN	0530	355	1.	*	2 JAN	1555	480	0.
1 JAN	0845	106	31.	*	1 JAN	1910	231	35.	*	2 JAN	0535	356	1.	*	2 JAN	1600	481	0.
1 JAN	0850	107	32.	*	1 JAN	1915	232	34.	*	2 JAN	0540	357	0.	*	2 JAN	1605	482	0.
1 JAN	0855	108	32.	*	1 JAN	1920	233	33.	*	2 JAN	0545	358	0.	*	2 JAN	1610	483	0.
1 JAN	0900	109	33.	*	1 JAN	1925	234	33.	*	2 JAN	0550	359	0.	*	2 JAN	1615	484	0.
1 JAN	0905	110	33.	*	1 JAN	1930	235	32.	*	2 JAN	0555	360	0.	*	2 JAN	1620	485	0.
1 JAN	0910	111	34.	*	1 JAN	1935	236	31.	*	2 JAN	0600	361	0.	*	2 JAN	1625	486	0.
1 JAN	0915	112	35.	*	1 JAN	1940	237	31.	*	2 JAN	0605	362	0.	*	2 JAN	1630	487	0.
1 JAN	0920	113	35.	*	1 JAN	1945	238	30.	*	2 JAN	0610	363	0.	*	2 JAN	1635	488	0.
1 JAN	0925	114	36.	*	1 JAN	1950	239	30.	*	2 JAN	0615	364	0.	*	2 JAN	1640	489	0.
1 JAN	0930	115	37.	*	1 JAN	1955	240	29.	*	2 JAN	0620	365	0.	*	2 JAN	1645	490	0.
1 JAN	0935	116	37.	*	1 JAN	2000	241	29.	*	2 JAN	0625	366	0.	*	2 JAN	1650	491	0.
1 JAN	0940	117	38.	*	1 JAN	2005	242	28.	*	2 JAN	0630	367	0.	*	2 JAN	1655	492	0.
1 JAN	0945	118	39.	*	1 JAN	2010	243	28.	*	2 JAN	0635	368	0.	*	2 JAN	1700	493	0.
1 JAN	0950	119	40.	*	1 JAN	2015	244	27.	*	2 JAN	0640	369	0.	*	2 JAN	1705	494	0.
1 JAN	0955	120	40.	*	1 JAN	2020	245	27.	*	2 JAN	0645	370	0.	*	2 JAN	1710	495	0.
1 JAN	1000	121	41.	*	1 JAN	2025	246	27.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	42.	*	1 JAN	2030	247	26.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	43.	*	1 JAN	2035	248	26.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	43.	*	1 JAN	2040	249	25.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	44.	*	1 JAN	2045	250	25.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
				*					*					*				

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PEAK FLOW TIME MAXIMUM AVERAGE FLOW

			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)	(CFS)				
+ 8539.	12.50		1724.	451.	261.	261.
		(INCHES)	1.442	1.510	1.512	1.512
		(AC-FT)	855.	895.	896.	896.

CUMULATIVE AREA = 11.11 SQ MI

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HYDROGRAPH AT C007
TRANSPOSITION AREA 90.0 SQ MI

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DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	44.	1 JAN 2050	251	24.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	45.	1 JAN 2055	252	23.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	46.	1 JAN 2100	253	23.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	47.	1 JAN 2105	254	23.	2 JAN 0730	379	0.
1 JAN 0020	5	0.	1 JAN 1045	130	49.	1 JAN 2110	255	23.	2 JAN 0735	380	0.
1 JAN 0025	6	0.	1 JAN 1050	131	51.	1 JAN 2115	256	23.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	53.	1 JAN 2120	257	22.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	56.	1 JAN 2125	258	22.	2 JAN 0750	383	0.
1 JAN 0040	9	1.	1 JAN 1105	134	60.	1 JAN 2130	259	22.	2 JAN 0755	384	0.
1 JAN 0045	10	1.	1 JAN 1110	135	65.	1 JAN 2135	260	22.	2 JAN 0800	385	0.
1 JAN 0050	11	1.	1 JAN 1115	136	72.	1 JAN 2140	261	22.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	83.	1 JAN 2145	262	22.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	98.	1 JAN 2150	263	21.	2 JAN 0815	388	0.
1 JAN 0105	14	2.	1 JAN 1130	139	113.	1 JAN 2155	264	21.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	144.	1 JAN 2200	265	21.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	222.	1 JAN 2205	266	21.	2 JAN 0830	391	0.
1 JAN 0120	17	4.	1 JAN 1145	142	386.	1 JAN 2210	267	21.	2 JAN 0835	392	0.
1 JAN 0125	18	4.	1 JAN 1150	143	703.	1 JAN 2215	268	21.	2 JAN 0840	393	0.
1 JAN 0130	19	5.	1 JAN 1155	144	1320.	1 JAN 2220	269	21.	2 JAN 0845	394	0.
1 JAN 0135	20	6.	1 JAN 1200	145	2366.	1 JAN 2225	270	20.	2 JAN 0850	395	0.
1 JAN 0140	21	6.	1 JAN 1205	146	3818.	1 JAN 2230	271	20.	2 JAN 0855	396	0.
1 JAN 0145	22	7.	1 JAN 1210	147	5305.	1 JAN 2235	272	20.	2 JAN 0900	397	0.
1 JAN 0150	23	7.	1 JAN 1215	148	6566.	1 JAN 2240	273	20.	2 JAN 0905	398	0.
1 JAN 0155	24	8.	1 JAN 1220	149	7559.	1 JAN 2245	274	20.	2 JAN 0910	399	0.
1 JAN 0200	25	8.	1 JAN 1225	150	8147.	1 JAN 2250	275	20.	2 JAN 0915	400	0.
1 JAN 0205	26	9.	1 JAN 1230	151	8334.	1 JAN 2255	276	20.	2 JAN 0920	401	0.
1 JAN 0210	27	9.	1 JAN 1235	152	8297.	1 JAN 2300	277	20.	2 JAN 0925	402	0.
1 JAN 0215	28	10.	1 JAN 1240	153	7996.	1 JAN 2305	278	20.	2 JAN 0930	403	0.
1 JAN 0220	29	10.	1 JAN 1245	154	7464.	1 JAN 2310	279	19.	2 JAN 0935	404	0.
1 JAN 0225	30	11.	1 JAN 1250	155	6788.	1 JAN 2315	280	19.	2 JAN 0940	405	0.
1 JAN 0230	31	11.	1 JAN 1255	156	6028.	1 JAN 2320	281	19.	2 JAN 0945	406	0.
1 JAN 0235	32	12.	1 JAN 1300	157	5210.	1 JAN 2325	282	19.	2 JAN 0950	407	0.
1 JAN 0240	33	12.	1 JAN 1305	158	4466.	1 JAN 2330	283	19.	2 JAN 0955	408	0.
1 JAN 0245	34	12.	1 JAN 1310	159	3839.	1 JAN 2335	284	19.	2 JAN 1000	409	0.
1 JAN 0250	35	13.	1 JAN 1315	160	3293.	1 JAN 2340	285	19.	2 JAN 1005	410	0.
1 JAN 0255	36	13.	1 JAN 1320	161	2806.	1 JAN 2345	286	19.	2 JAN 1010	411	0.
1 JAN 0300	37	14.	1 JAN 1325	162	2381.	1 JAN 2350	287	19.	2 JAN 1015	412	0.
1 JAN 0305	38	14.	1 JAN 1330	163	2007.	1 JAN 2355	288	19.	2 JAN 1020	413	0.
1 JAN 0310	39	14.	1 JAN 1335	164	1679.	2 JAN 0000	289	19.	2 JAN 1025	414	0.
1 JAN 0315	40	14.	1 JAN 1340	165	1427.	2 JAN 0005	290	19.	2 JAN 1030	415	0.
1 JAN 0320	41	15.	1 JAN 1345	166	1230.	2 JAN 0010	291	18.	2 JAN 1035	416	0.
1 JAN 0325	42	15.	1 JAN 1350	167	1075.	2 JAN 0015	292	18.	2 JAN 1040	417	0.
1 JAN 0330	43	15.	1 JAN 1355	168	942.	2 JAN 0020	293	18.	2 JAN 1045	418	0.
1 JAN 0335	44	15.	1 JAN 1400	169	832.	2 JAN 0025	294	18.	2 JAN 1050	419	0.
1 JAN 0340	45	16.	1 JAN 1405	170	735.	2 JAN 0030	295	18.	2 JAN 1055	420	0.
1 JAN 0345	46	16.	1 JAN 1410	171	652.	2 JAN 0035	296	17.	2 JAN 1100	421	0.
1 JAN 0350	47	16.	1 JAN 1415	172	583.	2 JAN 0040	297	17.	2 JAN 1105	422	0.
1 JAN 0355	48	16.	1 JAN 1420	173	519.	2 JAN 0045	298	17.	2 JAN 1110	423	0.
1 JAN 0400	49	16.	1 JAN 1425	174	463.	2 JAN 0050	299	16.	2 JAN 1115	424	0.
1 JAN 0405	50	17.	1 JAN 1430	175	418.	2 JAN 0055	300	16.	2 JAN 1120	425	0.
1 JAN 0410	51	17.	1 JAN 1435	176	378.	2 JAN 0100	301	15.	2 JAN 1125	426	0.
1 JAN 0415	52	17.	1 JAN 1440	177	342.	2 JAN 0105	302	15.	2 JAN 1130	427	0.
1 JAN 0420	53	17.	1 JAN 1445	178	310.	2 JAN 0110	303	14.	2 JAN 1135	428	0.
1 JAN 0425	54	17.	1 JAN 1450	179	282.	2 JAN 0115	304	14.	2 JAN 1140	429	0.
1 JAN 0430	55	18.	1 JAN 1455	180	259.	2 JAN 0120	305	13.	2 JAN 1145	430	0.
1 JAN 0435	56	18.	1 JAN 1500	181	238.	2 JAN 0125	306	12.	2 JAN 1150	431	0.
1 JAN 0440	57	18.	1 JAN 1505	182	218.	2 JAN 0130	307	12.	2 JAN 1155	432	0.
1 JAN 0445	58	18.	1 JAN 1510	183	199.	2 JAN 0135	308	11.	2 JAN 1200	433	0.
1 JAN 0450	59	19.	1 JAN 1515	184	182.	2 JAN 0140	309	11.	2 JAN 1205	434	0.
1 JAN 0455	60	19.	1 JAN 1520	185	168.	2 JAN 0145	310	10.	2 JAN 1210	435	0.
1 JAN 0500	61	19.	1 JAN 1525	186	157.	2 JAN 0150	311	9.	2 JAN 1215	436	0.
1 JAN 0505	62	19.	1 JAN 1530	187	147.	2 JAN 0155	312	9.	2 JAN 1220	437	0.
1 JAN 0510	63	20.	1 JAN 1535	188	138.	2 JAN 0200	313	8.	2 JAN 1225	438	0.
1 JAN 0515	64	20.	1 JAN 1540	189	129.	2 JAN 0205	314	8.	2 JAN 1230	439	0.
1 JAN 0520	65	20.	1 JAN 1545	190	121.	2 JAN 0210	315	7.	2 JAN 1235	440	0.
1 JAN 0525	66	20.	1 JAN 1550	191	114.	2 JAN 0215	316	7.	2 JAN 1240	441	0.
1 JAN 0530	67	21.	1 JAN 1555	192	107.	2 JAN 0220	317	7.	2 JAN 1245	442	0.
1 JAN 0535	68	21.	1 JAN 1600	193	101.	2 JAN 0225	318	6.	2 JAN 1250	443	0.
1 JAN 0540	69	21.	1 JAN 1605	194	95.	2 JAN 0230	319	6.	2 JAN 1255	444	0.
1 JAN 0545	70	21.	1 JAN 1610	195	90.	2 JAN 0235	320	6.	2 JAN 1300	445	0.
1 JAN 0550	71	21.	1 JAN 1615	196	86.	2 JAN 0240	321	5.	2 JAN 1305	446	0.
1 JAN 0555	72	22.	1 JAN 1620	197	82.	2 JAN 0245	322	5.	2 JAN 1310	447	0.
1 JAN 0600	73	22.	1 JAN 1625	198	78.	2 JAN 0250	323	5.	2 JAN 1315	448	0.
1 JAN 0605	74	22.	1 JAN 1630	199	76.	2 JAN 0255	324	4.	2 JAN 1320	449	0.
1 JAN 0610	75	22.	1 JAN 1635	200	73.	2 JAN 0300	325	4.	2 JAN 1325	450	0.
1 JAN 0615	76	22.	1 JAN 1640	201	72.	2 JAN 0305	326	4.	2 JAN 1330	451	0.
1 JAN 0620	77	23.	1 JAN 1645	202	70.	2 JAN 0310	327	4.	2 JAN 1335	452	0.
1 JAN 0625	78	23.	1 JAN 1650	203	68.	2 JAN 0315	328	3.	2 JAN 1340	453	0.
1 JAN 0630	79	23.	1 JAN 1655	204	66.	2 JAN 0320	329	3.	2 JAN 1345	454	0.
1 JAN 0635	80	24.	1 JAN 1700	205	65.	2 JAN 0325	330	3.	2 JAN 1350	455	0.
1 JAN 0640	81	24.	1 JAN 1705	206	63.	2 JAN 0330	331	3.	2 JAN 1355	456	0.
1 JAN 0645	82	24.	1 JAN 1710	207	62.	2 JAN 0335	332	3.	2 JAN 1400	457	0.
1 JAN 0650	83	25.	1 JAN 1715	208	60.	2 JAN 0340	333	2.	2 JAN 1405	458	0.
1 JAN 0655	84	25.	1 JAN 1720	209	59.	2 JAN 0345	334	2.	2 JAN 1410	459	0.
1 JAN 0700	85	25.	1 JAN 1725	210	57.	2 JAN 0350	335	2.	2 JAN 1415	460	0.
1 JAN 0705	86	26.	1 JAN 1730	211	56.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	26.	1 JAN 1735	212	54.	2 JAN 0400	337	2.	2 JAN 1425	462	0.

1 JAN 0715	88	26.	*	1 JAN 1740	213	53.	*	2 JAN 0405	338	2.	*	2 JAN 1430	463	0.
1 JAN 0720	89	27.	*	1 JAN 1745	214	52.	*	2 JAN 0410	339	2.	*	2 JAN 1435	464	0.
1 JAN 0725	90	27.	*	1 JAN 1750	215	50.	*	2 JAN 0415	340	2.	*	2 JAN 1440	465	0.
1 JAN 0730	91	27.	*	1 JAN 1755	216	49.	*	2 JAN 0420	341	1.	*	2 JAN 1445	466	0.
1 JAN 0735	92	27.	*	1 JAN 1800	217	48.	*	2 JAN 0425	342	1.	*	2 JAN 1450	467	0.
1 JAN 0740	93	28.	*	1 JAN 1805	218	47.	*	2 JAN 0430	343	1.	*	2 JAN 1455	468	0.
1 JAN 0745	94	28.	*	1 JAN 1810	219	46.	*	2 JAN 0435	344	1.	*	2 JAN 1500	469	0.
1 JAN 0750	95	28.	*	1 JAN 1815	220	45.	*	2 JAN 0440	345	1.	*	2 JAN 1505	470	0.
1 JAN 0755	96	28.	*	1 JAN 1820	221	44.	*	2 JAN 0445	346	1.	*	2 JAN 1510	471	0.
1 JAN 0800	97	28.	*	1 JAN 1825	222	43.	*	2 JAN 0450	347	1.	*	2 JAN 1515	472	0.
1 JAN 0805	98	29.	*	1 JAN 1830	223	42.	*	2 JAN 0455	348	1.	*	2 JAN 1520	473	0.
1 JAN 0810	99	29.	*	1 JAN 1835	224	41.	*	2 JAN 0500	349	1.	*	2 JAN 1525	474	0.
1 JAN 0815	100	29.	*	1 JAN 1840	225	40.	*	2 JAN 0505	350	1.	*	2 JAN 1530	475	0.
1 JAN 0820	101	29.	*	1 JAN 1845	226	39.	*	2 JAN 0510	351	1.	*	2 JAN 1535	476	0.
1 JAN 0825	102	29.	*	1 JAN 1850	227	38.	*	2 JAN 0515	352	1.	*	2 JAN 1540	477	0.
1 JAN 0830	103	30.	*	1 JAN 1855	228	37.	*	2 JAN 0520	353	1.	*	2 JAN 1545	478	0.
1 JAN 0835	104	30.	*	1 JAN 1900	229	36.	*	2 JAN 0525	354	1.	*	2 JAN 1550	479	0.
1 JAN 0840	105	30.	*	1 JAN 1905	230	35.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	31.	*	1 JAN 1910	231	34.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	31.	*	1 JAN 1915	232	33.	*	2 JAN 0540	357	0.	*	2 JAN 1605	482	0.
1 JAN 0855	108	32.	*	1 JAN 1920	233	32.	*	2 JAN 0545	358	0.	*	2 JAN 1610	483	0.
1 JAN 0900	109	32.	*	1 JAN 1925	234	32.	*	2 JAN 0550	359	0.	*	2 JAN 1615	484	0.
1 JAN 0905	110	33.	*	1 JAN 1930	235	31.	*	2 JAN 0555	360	0.	*	2 JAN 1620	485	0.
1 JAN 0910	111	33.	*	1 JAN 1935	236	30.	*	2 JAN 0600	361	0.	*	2 JAN 1625	486	0.
1 JAN 0915	112	34.	*	1 JAN 1940	237	30.	*	2 JAN 0605	362	0.	*	2 JAN 1630	487	0.
1 JAN 0920	113	35.	*	1 JAN 1945	238	29.	*	2 JAN 0610	363	0.	*	2 JAN 1635	488	0.
1 JAN 0925	114	35.	*	1 JAN 1950	239	29.	*	2 JAN 0615	364	0.	*	2 JAN 1640	489	0.
1 JAN 0930	115	36.	*	1 JAN 1955	240	28.	*	2 JAN 0620	365	0.	*	2 JAN 1645	490	0.
1 JAN 0935	116	37.	*	1 JAN 2000	241	28.	*	2 JAN 0625	366	0.	*	2 JAN 1650	491	0.
1 JAN 0940	117	37.	*	1 JAN 2005	242	28.	*	2 JAN 0630	367	0.	*	2 JAN 1655	492	0.
1 JAN 0945	118	38.	*	1 JAN 2010	243	27.	*	2 JAN 0635	368	0.	*	2 JAN 1700	493	0.
1 JAN 0950	119	39.	*	1 JAN 2015	244	27.	*	2 JAN 0640	369	0.	*	2 JAN 1705	494	0.
1 JAN 0955	120	40.	*	1 JAN 2020	245	26.	*	2 JAN 0645	370	0.	*	2 JAN 1710	495	0.
1 JAN 1000	121	40.	*	1 JAN 2025	246	26.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	41.	*	1 JAN 2030	247	26.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	42.	*	1 JAN 2035	248	25.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	43.	*	1 JAN 2040	249	25.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	43.	*	1 JAN 2045	250	24.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8334.	12.50		1681.	440.	254.	254.
		(INCHES)	1.407	1.472	1.475	1.475
		(AC-FT)	833.	872.	874.	874.

CUMULATIVE AREA = 11.11 SQ MI

INTERPOLATED HYDROGRAPH AT C007

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	50.	*	1 JAN 2050	251	30.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	51.	*	1 JAN 2055	252	29.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	53.	*	1 JAN 2100	253	29.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	55.	*	1 JAN 2105	254	28.	*	2 JAN 0730	379	0.
1 JAN 0020	5	0.	*	1 JAN 1045	130	57.	*	1 JAN 2110	255	27.	*	2 JAN 0735	380	0.
1 JAN 0025	6	0.	*	1 JAN 1050	131	61.	*	1 JAN 2115	256	27.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	65.	*	1 JAN 2120	257	26.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	71.	*	1 JAN 2125	258	26.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	80.	*	1 JAN 2130	259	25.	*	2 JAN 0755	384	0.
1 JAN 0045	10	1.	*	1 JAN 1110	135	92.	*	1 JAN 2135	260	25.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	105.	*	1 JAN 2140	261	24.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	120.	*	1 JAN 2145	262	24.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	138.	*	1 JAN 2150	263	24.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	161.	*	1 JAN 2155	264	23.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	207.	*	1 JAN 2200	265	23.	*	2 JAN 0825	390	0.
1 JAN 0115	16	4.	*	1 JAN 1140	141	308.	*	1 JAN 2205	266	23.	*	2 JAN 0830	391	0.
1 JAN 0120	17	4.	*	1 JAN 1145	142	518.	*	1 JAN 2210	267	23.	*	2 JAN 0835	392	0.
1 JAN 0125	18	5.	*	1 JAN 1150	143	922.	*	1 JAN 2215	268	23.	*	2 JAN 0840	393	0.
1 JAN 0130	19	6.	*	1 JAN 1155	144	1674.	*	1 JAN 2220	269	23.	*	2 JAN 0845	394	0.
1 JAN 0135	20	6.	*	1 JAN 1200	145	2910.	*	1 JAN 2225	270	23.	*	2 JAN 0850	395	0.
1 JAN 0140	21	7.	*	1 JAN 1205	146	4535.	*	1 JAN 2230	271	22.	*	2 JAN 0855	396	0.
1 JAN 0145	22	7.	*	1 JAN 1210	147	6159.	*	1 JAN 2235	272	22.	*	2 JAN 0900	397	0.
1 JAN 0150	23	8.	*	1 JAN 1215	148	7608.	*	1 JAN 2240	273	22.	*	2 JAN 0905	398	0.
1 JAN 0155	24	9.	*	1 JAN 1220	149	8747.	*	1 JAN 2245	274	22.	*	2 JAN 0910	399	0.
1 JAN 0200	25	9.	*	1 JAN 1225	150	9349.	*	1 JAN 2250	275	22.	*	2 JAN 0915	400	0.
1 JAN 0205	26	10.	*	1 JAN 1230	151	9664.	*	1 JAN 2255	276	22.	*	2 JAN 0920	401	0.
1 JAN 0210	27	11.	*	1 JAN 1235	152	9624.	*	1 JAN 2300	277	22.	*	2 JAN 0925	402	0.
1 JAN 0215	28	11.	*	1 JAN 1240	153	9248.	*	1 JAN 2305	278	22.	*	2 JAN 0930	403	0.
1 JAN 0220	29	12.	*	1 JAN 1245	154	8612.	*	1 JAN 2310	279	22.	*	2 JAN 0935	404	0.
1 JAN 0225	30	12.	*	1 JAN 1250	155	7810.	*	1 JAN 2315	280	22.	*	2 JAN 0940	405	0.
1 JAN 0230	31	13.	*	1 JAN 1255	156	6960.	*	1 JAN 2320	281	21.	*	2 JAN 0945	406	0.
1 JAN 0235	32	13.	*	1 JAN 1300	157	6107.	*	1 JAN 2325	282	21.	*	2 JAN 0950	407	0.
1 JAN 0240	33	13.	*	1 JAN 1305	158	5235.	*	1 JAN 2330	283	21.	*	2 JAN 0955	408	0.
1 JAN 0245	34	14.	*	1 JAN 1310	159	4449.	*	1 JAN 2335	284	21.	*	2 JAN 1000	409	0.
1 JAN 0250	35	14.	*	1 JAN 1315	160	3800.	*	1 JAN 2340	285	21.	*	2 JAN 1005	410	0.
1 JAN 0255	36	15.	*	1 JAN 1320	161	3241.	*	1 JAN 2345	286	21.	*	2 JAN 1010	411	0.
1 JAN 0300	37	15.	*	1 JAN 1325	162	2756.	*	1 JAN 2350	287	21.	*	2 JAN 1015	412	0.
1 JAN 0305	38	15.	*	1 JAN 1330	163	2328.	*	1 JAN 2355	288	21.	*	2 JAN 1020	413	0.
1 JAN 0310	39	16.	*	1 JAN 1335	164	1960.	*	2 JAN 0000	289	21.	*	2 JAN 1025	414	0.
1 JAN 0315	40	16.	*	1 JAN 1340	165	1643.	*	2 JAN 0005	290	21.	*	2 JAN 1030	415	0.
1 JAN 0320	41	16.	*	1 JAN 1345	166	1402.	*	2 JAN 0010	291	21.	*	2 JAN 1035	416	0.
1 JAN 0325	42	17.	*	1 JAN 1350	167	1215.	*	2 JAN 0015	292	20.	*	2 JAN 1040	417	0.
1 JAN 0330	43	17.	*	1 JAN 1355	168	1069.	*	2 JAN 0020	293	20.	*	2 JAN 1045	418	0.
1 JAN 0335	44	17.	*	1 JAN 1400	169	942.	*	2 JAN 0025	294	20.	*	2 JAN 1050	419	0.
1 JAN 0340	45	17.	*	1 JAN 1405	170	836.	*	2 JAN 0030	295	20.	*	2 JAN 1055	420	0.
1 JAN 0345	46	18.	*	1 JAN 1410	171	744.	*	2 JAN 0035	296	19.	*	2 JAN 1100	421	0.

1 JAN 0350	47	18.	1 JAN 1415	172	664.	2 JAN 0040	297	19.	2 JAN 1105	422	0.
1 JAN 0355	48	18.	1 JAN 1420	173	596.	2 JAN 0045	298	19.	2 JAN 1110	423	0.
1 JAN 0400	49	18.	1 JAN 1425	174	536.	2 JAN 0050	299	18.	2 JAN 1115	424	0.
1 JAN 0405	50	18.	1 JAN 1430	175	482.	2 JAN 0055	300	18.	2 JAN 1120	425	0.
1 JAN 0410	51	19.	1 JAN 1435	176	436.	2 JAN 0100	301	17.	2 JAN 1125	426	0.
1 JAN 0415	52	19.	1 JAN 1440	177	399.	2 JAN 0105	302	17.	2 JAN 1130	427	0.
1 JAN 0420	53	19.	1 JAN 1445	178	365.	2 JAN 0110	303	16.	2 JAN 1135	428	0.
1 JAN 0425	54	19.	1 JAN 1450	179	333.	2 JAN 0115	304	15.	2 JAN 1140	429	0.
1 JAN 0430	55	20.	1 JAN 1455	180	304.	2 JAN 0120	305	15.	2 JAN 1145	430	0.
1 JAN 0435	56	20.	1 JAN 1500	181	279.	2 JAN 0125	306	14.	2 JAN 1150	431	0.
1 JAN 0440	57	20.	1 JAN 1505	182	258.	2 JAN 0130	307	13.	2 JAN 1155	432	0.
1 JAN 0445	58	20.	1 JAN 1510	183	239.	2 JAN 0135	308	12.	2 JAN 1200	433	0.
1 JAN 0450	59	21.	1 JAN 1515	184	220.	2 JAN 0140	309	12.	2 JAN 1205	434	0.
1 JAN 0455	60	21.	1 JAN 1520	185	204.	2 JAN 0145	310	11.	2 JAN 1210	435	0.
1 JAN 0500	61	21.	1 JAN 1525	186	189.	2 JAN 0150	311	11.	2 JAN 1215	436	0.
1 JAN 0505	62	21.	1 JAN 1530	187	176.	2 JAN 0155	312	10.	2 JAN 1220	437	0.
1 JAN 0510	63	22.	1 JAN 1535	188	164.	2 JAN 0200	313	9.	2 JAN 1225	438	0.
1 JAN 0515	64	22.	1 JAN 1540	189	155.	2 JAN 0205	314	9.	2 JAN 1230	439	0.
1 JAN 0520	65	23.	1 JAN 1545	190	147.	2 JAN 0210	315	8.	2 JAN 1235	440	0.
1 JAN 0525	66	23.	1 JAN 1550	191	139.	2 JAN 0215	316	8.	2 JAN 1240	441	0.
1 JAN 0530	67	24.	1 JAN 1555	192	132.	2 JAN 0220	317	7.	2 JAN 1245	442	0.
1 JAN 0535	68	24.	1 JAN 1600	193	125.	2 JAN 0225	318	7.	2 JAN 1250	443	0.
1 JAN 0540	69	24.	1 JAN 1605	194	119.	2 JAN 0230	319	7.	2 JAN 1255	444	0.
1 JAN 0545	70	25.	1 JAN 1610	195	113.	2 JAN 0235	320	6.	2 JAN 1300	445	0.
1 JAN 0550	71	25.	1 JAN 1615	196	107.	2 JAN 0240	321	6.	2 JAN 1305	446	0.
1 JAN 0555	72	25.	1 JAN 1620	197	103.	2 JAN 0245	322	5.	2 JAN 1310	447	0.
1 JAN 0600	73	25.	1 JAN 1625	198	98.	2 JAN 0250	323	5.	2 JAN 1315	448	0.
1 JAN 0605	74	25.	1 JAN 1630	199	95.	2 JAN 0255	324	5.	2 JAN 1320	449	0.
1 JAN 0610	75	25.	1 JAN 1635	200	91.	2 JAN 0300	325	4.	2 JAN 1325	450	0.
1 JAN 0615	76	26.	1 JAN 1640	201	88.	2 JAN 0305	326	4.	2 JAN 1330	451	0.
1 JAN 0620	77	26.	1 JAN 1645	202	86.	2 JAN 0310	327	4.	2 JAN 1335	452	0.
1 JAN 0625	78	26.	1 JAN 1650	203	84.	2 JAN 0315	328	4.	2 JAN 1340	453	0.
1 JAN 0630	79	26.	1 JAN 1655	204	82.	2 JAN 0320	329	3.	2 JAN 1345	454	0.
1 JAN 0635	80	26.	1 JAN 1700	205	80.	2 JAN 0325	330	3.	2 JAN 1350	455	0.
1 JAN 0640	81	27.	1 JAN 1705	206	78.	2 JAN 0330	331	3.	2 JAN 1355	456	0.
1 JAN 0645	82	27.	1 JAN 1710	207	76.	2 JAN 0335	332	3.	2 JAN 1400	457	0.
1 JAN 0650	83	27.	1 JAN 1715	208	75.	2 JAN 0340	333	3.	2 JAN 1405	458	0.
1 JAN 0655	84	28.	1 JAN 1720	209	73.	2 JAN 0345	334	2.	2 JAN 1410	459	0.
1 JAN 0700	85	28.	1 JAN 1725	210	72.	2 JAN 0350	335	2.	2 JAN 1415	460	0.
1 JAN 0705	86	29.	1 JAN 1730	211	70.	2 JAN 0355	336	2.	2 JAN 1420	461	0.
1 JAN 0710	87	29.	1 JAN 1735	212	69.	2 JAN 0400	337	2.	2 JAN 1425	462	0.
1 JAN 0715	88	29.	1 JAN 1740	213	67.	2 JAN 0405	338	2.	2 JAN 1430	463	0.
1 JAN 0720	89	30.	1 JAN 1745	214	65.	2 JAN 0410	339	2.	2 JAN 1435	464	0.
1 JAN 0725	90	30.	1 JAN 1750	215	64.	2 JAN 0415	340	2.	2 JAN 1440	465	0.
1 JAN 0730	91	30.	1 JAN 1755	216	62.	2 JAN 0420	341	2.	2 JAN 1445	466	0.
1 JAN 0735	92	30.	1 JAN 1800	217	61.	2 JAN 0425	342	1.	2 JAN 1450	467	0.
1 JAN 0740	93	31.	1 JAN 1805	218	60.	2 JAN 0430	343	1.	2 JAN 1455	468	0.
1 JAN 0745	94	31.	1 JAN 1810	219	59.	2 JAN 0435	344	1.	2 JAN 1500	469	0.
1 JAN 0750	95	31.	1 JAN 1815	220	58.	2 JAN 0440	345	1.	2 JAN 1505	470	0.
1 JAN 0755	96	31.	1 JAN 1820	221	56.	2 JAN 0445	346	1.	2 JAN 1510	471	0.
1 JAN 0800	97	31.	1 JAN 1825	222	55.	2 JAN 0450	347	1.	2 JAN 1515	472	0.
1 JAN 0805	98	32.	1 JAN 1830	223	54.	2 JAN 0455	348	1.	2 JAN 1520	473	0.
1 JAN 0810	99	32.	1 JAN 1835	224	53.	2 JAN 0500	349	1.	2 JAN 1525	474	0.
1 JAN 0815	100	32.	1 JAN 1840	225	52.	2 JAN 0505	350	1.	2 JAN 1530	475	0.
1 JAN 0820	101	32.	1 JAN 1845	226	50.	2 JAN 0510	351	1.	2 JAN 1535	476	0.
1 JAN 0825	102	32.	1 JAN 1850	227	49.	2 JAN 0515	352	1.	2 JAN 1540	477	0.
1 JAN 0830	103	33.	1 JAN 1855	228	47.	2 JAN 0520	353	1.	2 JAN 1545	478	0.
1 JAN 0835	104	33.	1 JAN 1900	229	46.	2 JAN 0525	354	1.	2 JAN 1550	479	0.
1 JAN 0840	105	33.	1 JAN 1905	230	44.	2 JAN 0530	355	1.	2 JAN 1555	480	0.
1 JAN 0845	106	34.	1 JAN 1910	231	43.	2 JAN 0535	356	1.	2 JAN 1600	481	0.
1 JAN 0850	107	34.	1 JAN 1915	232	42.	2 JAN 0540	357	1.	2 JAN 1605	482	0.
1 JAN 0855	108	35.	1 JAN 1920	233	41.	2 JAN 0545	358	0.	2 JAN 1610	483	0.
1 JAN 0900	109	36.	1 JAN 1925	234	40.	2 JAN 0550	359	0.	2 JAN 1615	484	0.
1 JAN 0905	110	36.	1 JAN 1930	235	39.	2 JAN 0555	360	0.	2 JAN 1620	485	0.
1 JAN 0910	111	37.	1 JAN 1935	236	38.	2 JAN 0600	361	0.	2 JAN 1625	486	0.
1 JAN 0915	112	38.	1 JAN 1940	237	37.	2 JAN 0605	362	0.	2 JAN 1630	487	0.
1 JAN 0920	113	39.	1 JAN 1945	238	37.	2 JAN 0610	363	0.	2 JAN 1635	488	0.
1 JAN 0925	114	39.	1 JAN 1950	239	36.	2 JAN 0615	364	0.	2 JAN 1640	489	0.
1 JAN 0930	115	40.	1 JAN 1955	240	36.	2 JAN 0620	365	0.	2 JAN 1645	490	0.
1 JAN 0935	116	41.	1 JAN 2000	241	35.	2 JAN 0625	366	0.	2 JAN 1650	491	0.
1 JAN 0940	117	42.	1 JAN 2005	242	35.	2 JAN 0630	367	0.	2 JAN 1655	492	0.
1 JAN 0945	118	42.	1 JAN 2010	243	34.	2 JAN 0635	368	0.	2 JAN 1700	493	0.
1 JAN 0950	119	43.	1 JAN 2015	244	34.	2 JAN 0640	369	0.	2 JAN 1705	494	0.
1 JAN 0955	120	44.	1 JAN 2020	245	34.	2 JAN 0645	370	0.	2 JAN 1710	495	0.
1 JAN 1000	121	45.	1 JAN 2025	246	33.	2 JAN 0650	371	0.	2 JAN 1715	496	0.
1 JAN 1005	122	46.	1 JAN 2030	247	33.	2 JAN 0655	372	0.	2 JAN 1720	497	0.
1 JAN 1010	123	46.	1 JAN 2035	248	32.	2 JAN 0700	373	0.	2 JAN 1725	498	0.
1 JAN 1015	124	47.	1 JAN 2040	249	31.	2 JAN 0705	374	0.	2 JAN 1730	499	0.
1 JAN 1020	125	48.	1 JAN 2045	250	31.	2 JAN 0710	375	0.	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 9664.	12.50		1958.	512.	296.	296.
		(INCHES)	1.639	1.716	1.718	1.718
		(AC-FT)	971.	1016.	1018.	1018.

CUMULATIVE AREA = 11.11 SQ MI

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              **************
              *            *
267 KK        *    C010L   *
              *            *
              **************

268 KO            OUTPUT CONTROL VARIABLES
                        IPRNT          1  PRINT CONTROL
```

IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	500	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

270 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT C010L
TRANSPOSITION AREA .0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	54.	1 JAN 2050	251	43.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	56.	1 JAN 2055	252	43.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	57.	1 JAN 2100	253	42.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	59.	1 JAN 2105	254	41.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	61.	1 JAN 2110	255	40.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	63.	1 JAN 2115	256	40.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	66.	1 JAN 2120	257	39.	2 JAN 0745	382	0.
1 JAN 0035	8	2.	1 JAN 1100	133	69.	1 JAN 2125	258	38.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	73.	1 JAN 2130	259	37.	2 JAN 0755	384	0.
1 JAN 0045	10	2.	1 JAN 1110	135	78.	1 JAN 2135	260	36.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	84.	1 JAN 2140	261	35.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	92.	1 JAN 2145	262	34.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	103.	1 JAN 2150	263	33.	2 JAN 0815	388	0.
1 JAN 0105	14	2.	1 JAN 1130	139	119.	1 JAN 2155	264	32.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	153.	1 JAN 2200	265	32.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	234.	1 JAN 2205	266	31.	2 JAN 0830	391	0.
1 JAN 0120	17	3.	1 JAN 1145	142	375.	1 JAN 2210	267	30.	2 JAN 0835	392	0.
1 JAN 0125	18	3.	1 JAN 1150	143	641.	1 JAN 2215	268	30.	2 JAN 0840	393	0.
1 JAN 0130	19	3.	1 JAN 1155	144	1045.	1 JAN 2220	269	29.	2 JAN 0845	394	0.
1 JAN 0135	20	3.	1 JAN 1200	145	1698.	1 JAN 2225	270	29.	2 JAN 0850	395	0.
1 JAN 0140	21	4.	1 JAN 1205	146	2536.	1 JAN 2230	271	29.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	2976.	1 JAN 2235	272	29.	2 JAN 0900	397	0.
1 JAN 0150	23	4.	1 JAN 1215	148	3100.	1 JAN 2240	273	29.	2 JAN 0905	398	0.
1 JAN 0155	24	5.	1 JAN 1220	149	3100.	1 JAN 2245	274	29.	2 JAN 0910	399	0.
1 JAN 0200	25	5.	1 JAN 1225	150	3554.	1 JAN 2250	275	28.	2 JAN 0915	400	0.
1 JAN 0205	26	5.	1 JAN 1230	151	4949.	1 JAN 2255	276	28.	2 JAN 0920	401	0.
1 JAN 0210	27	6.	1 JAN 1235	152	7036.	1 JAN 2300	277	28.	2 JAN 0925	402	0.
1 JAN 0215	28	6.	1 JAN 1240	153	8911.	1 JAN 2305	278	28.	2 JAN 0930	403	0.
1 JAN 0220	29	7.	1 JAN 1245	154	9950.	1 JAN 2310	279	28.	2 JAN 0935	404	0.
1 JAN 0225	30	7.	1 JAN 1250	155	10320.	1 JAN 2315	280	27.	2 JAN 0940	405	0.
1 JAN 0230	31	8.	1 JAN 1255	156	10143.	1 JAN 2320	281	27.	2 JAN 0945	406	0.
1 JAN 0235	32	8.	1 JAN 1300	157	9663.	1 JAN 2325	282	27.	2 JAN 0950	407	0.
1 JAN 0240	33	9.	1 JAN 1305	158	9065.	1 JAN 2330	283	27.	2 JAN 0955	408	0.
1 JAN 0245	34	10.	1 JAN 1310	159	8368.	1 JAN 2335	284	27.	2 JAN 1000	409	0.
1 JAN 0250	35	10.	1 JAN 1315	160	7581.	1 JAN 2340	285	26.	2 JAN 1005	410	0.
1 JAN 0255	36	11.	1 JAN 1320	161	6814.	1 JAN 2345	286	26.	2 JAN 1010	411	0.
1 JAN 0300	37	11.	1 JAN 1325	162	6162.	1 JAN 2350	287	26.	2 JAN 1015	412	0.
1 JAN 0305	38	12.	1 JAN 1330	163	5520.	1 JAN 2355	288	26.	2 JAN 1020	413	0.
1 JAN 0310	39	13.	1 JAN 1335	164	4897.	2 JAN 0000	289	26.	2 JAN 1025	414	0.
1 JAN 0315	40	13.	1 JAN 1340	165	4368.	2 JAN 0005	290	25.	2 JAN 1030	415	0.
1 JAN 0320	41	14.	1 JAN 1345	166	3993.	2 JAN 0010	291	25.	2 JAN 1035	416	0.
1 JAN 0325	42	14.	1 JAN 1350	167	3616.	2 JAN 0015	292	24.	2 JAN 1040	417	0.
1 JAN 0330	43	15.	1 JAN 1355	168	3246.	2 JAN 0020	293	24.	2 JAN 1045	418	0.
1 JAN 0335	44	15.	1 JAN 1400	169	2918.	2 JAN 0025	294	24.	2 JAN 1050	419	0.
1 JAN 0340	45	16.	1 JAN 1405	170	2640.	2 JAN 0030	295	23.	2 JAN 1055	420	0.
1 JAN 0345	46	16.	1 JAN 1410	171	2438.	2 JAN 0035	296	23.	2 JAN 1100	421	0.
1 JAN 0350	47	17.	1 JAN 1415	172	2199.	2 JAN 0040	297	23.	2 JAN 1105	422	0.
1 JAN 0355	48	17.	1 JAN 1420	173	1885.	2 JAN 0045	298	23.	2 JAN 1110	423	0.
1 JAN 0400	49	18.	1 JAN 1425	174	1441.	2 JAN 0050	299	23.	2 JAN 1115	424	0.
1 JAN 0405	50	18.	1 JAN 1430	175	863.	2 JAN 0055	300	22.	2 JAN 1120	425	0.
1 JAN 0410	51	19.	1 JAN 1435	176	693.	2 JAN 0100	301	22.	2 JAN 1125	426	0.
1 JAN 0415	52	19.	1 JAN 1440	177	618.	2 JAN 0105	302	22.	2 JAN 1130	427	0.
1 JAN 0420	53	20.	1 JAN 1445	178	564.	2 JAN 0110	303	22.	2 JAN 1135	428	0.
1 JAN 0425	54	20.	1 JAN 1450	179	514.	2 JAN 0115	304	22.	2 JAN 1140	429	0.
1 JAN 0430	55	20.	1 JAN 1455	180	470.	2 JAN 0120	305	21.	2 JAN 1145	430	0.
1 JAN 0435	56	21.	1 JAN 1500	181	434.	2 JAN 0125	306	21.	2 JAN 1150	431	0.
1 JAN 0440	57	21.	1 JAN 1505	182	402.	2 JAN 0130	307	21.	2 JAN 1155	432	0.
1 JAN 0445	58	21.	1 JAN 1510	183	371.	2 JAN 0135	308	20.	2 JAN 1200	433	0.
1 JAN 0450	59	22.	1 JAN 1515	184	342.	2 JAN 0140	309	20.	2 JAN 1205	434	0.
1 JAN 0455	60	22.	1 JAN 1520	185	316.	2 JAN 0145	310	20.	2 JAN 1210	435	0.
1 JAN 0500	61	22.	1 JAN 1525	186	295.	2 JAN 0150	311	19.	2 JAN 1215	436	0.
1 JAN 0505	62	22.	1 JAN 1530	187	277.	2 JAN 0155	312	19.	2 JAN 1220	437	0.
1 JAN 0510	63	23.	1 JAN 1535	188	259.	2 JAN 0200	313	18.	2 JAN 1225	438	0.
1 JAN 0515	64	23.	1 JAN 1540	189	242.	2 JAN 0205	314	18.	2 JAN 1230	439	0.
1 JAN 0520	65	23.	1 JAN 1545	190	226.	2 JAN 0210	315	17.	2 JAN 1235	440	0.
1 JAN 0525	66	24.	1 JAN 1550	191	211.	2 JAN 0215	316	17.	2 JAN 1240	441	0.
1 JAN 0530	67	24.	1 JAN 1555	192	198.	2 JAN 0220	317	16.	2 JAN 1245	442	0.
1 JAN 0535	68	24.	1 JAN 1600	193	187.	2 JAN 0225	318	15.	2 JAN 1250	443	0.
1 JAN 0540	69	25.	1 JAN 1605	194	178.	2 JAN 0230	319	15.	2 JAN 1255	444	0.
1 JAN 0545	70	25.	1 JAN 1610	195	170.	2 JAN 0235	320	14.	2 JAN 1300	445	0.
1 JAN 0550	71	25.	1 JAN 1615	196	163.	2 JAN 0240	321	14.	2 JAN 1305	446	0.
1 JAN 0555	72	26.	1 JAN 1620	197	156.	2 JAN 0245	322	13.	2 JAN 1310	447	0.
1 JAN 0600	73	26.	1 JAN 1625	198	149.	2 JAN 0250	323	12.	2 JAN 1315	448	0.
1 JAN 0605	74	26.	1 JAN 1630	199	142.	2 JAN 0255	324	12.	2 JAN 1320	449	0.
1 JAN 0610	75	27.	1 JAN 1635	200	136.	2 JAN 0300	325	11.	2 JAN 1325	450	0.
1 JAN 0615	76	27.	1 JAN 1640	201	130.	2 JAN 0305	326	11.	2 JAN 1330	451	0.
1 JAN 0620	77	28.	1 JAN 1645	202	125.	2 JAN 0310	327	10.	2 JAN 1335	452	0.
1 JAN 0625	78	28.	1 JAN 1650	203	120.	2 JAN 0315	328	9.	2 JAN 1340	453	0.
1 JAN 0630	79	29.	1 JAN 1655	204	115.	2 JAN 0320	329	9.	2 JAN 1345	454	0.
1 JAN 0635	80	29.	1 JAN 1700	205	111.	2 JAN 0325	330	8.	2 JAN 1350	455	0.
1 JAN 0640	81	29.	1 JAN 1705	206	107.	2 JAN 0330	331	8.	2 JAN 1355	456	0.
1 JAN 0645	82	30.	1 JAN 1710	207	104.	2 JAN 0335	332	8.	2 JAN 1400	457	0.

1 JAN 0650	83	30.	*	1 JAN 1715	208	101.	*	2 JAN 0340	333	7.	*	2 JAN 1405	458	0.
1 JAN 0655	84	31.	*	1 JAN 1720	209	99.	*	2 JAN 0345	334	7.	*	2 JAN 1410	459	0.
1 JAN 0700	85	31.	*	1 JAN 1725	210	96.	*	2 JAN 0350	335	6.	*	2 JAN 1415	460	0.
1 JAN 0705	86	32.	*	1 JAN 1730	211	94.	*	2 JAN 0355	336	6.	*	2 JAN 1420	461	0.
1 JAN 0710	87	32.	*	1 JAN 1735	212	92.	*	2 JAN 0400	337	6.	*	2 JAN 1425	462	0.
1 JAN 0715	88	33.	*	1 JAN 1740	213	91.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.
1 JAN 0720	89	33.	*	1 JAN 1745	214	89.	*	2 JAN 0410	339	5.	*	2 JAN 1435	464	0.
1 JAN 0725	90	33.	*	1 JAN 1750	215	88.	*	2 JAN 0415	340	5.	*	2 JAN 1440	465	0.
1 JAN 0730	91	34.	*	1 JAN 1755	216	86.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.
1 JAN 0735	92	34.	*	1 JAN 1800	217	84.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.
1 JAN 0740	93	35.	*	1 JAN 1805	218	82.	*	2 JAN 0430	343	4.	*	2 JAN 1455	468	0.
1 JAN 0745	94	35.	*	1 JAN 1810	219	81.	*	2 JAN 0435	344	4.	*	2 JAN 1500	469	0.
1 JAN 0750	95	35.	*	1 JAN 1815	220	79.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.
1 JAN 0755	96	36.	*	1 JAN 1820	221	77.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.
1 JAN 0800	97	36.	*	1 JAN 1825	222	76.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.
1 JAN 0805	98	36.	*	1 JAN 1830	223	75.	*	2 JAN 0455	348	3.	*	2 JAN 1520	473	0.
1 JAN 0810	99	37.	*	1 JAN 1835	224	73.	*	2 JAN 0500	349	3.	*	2 JAN 1525	474	0.
1 JAN 0815	100	37.	*	1 JAN 1840	225	72.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.
1 JAN 0820	101	37.	*	1 JAN 1845	226	71.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.
1 JAN 0825	102	38.	*	1 JAN 1850	227	69.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.
1 JAN 0830	103	38.	*	1 JAN 1855	228	68.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.
1 JAN 0835	104	39.	*	1 JAN 1900	229	67.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.
1 JAN 0840	105	39.	*	1 JAN 1905	230	65.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.
1 JAN 0845	106	39.	*	1 JAN 1910	231	64.	*	2 JAN 0535	356	2.	*	2 JAN 1600	481	0.
1 JAN 0850	107	40.	*	1 JAN 1915	232	62.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	40.	*	1 JAN 1920	233	61.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.
1 JAN 0900	109	40.	*	1 JAN 1925	234	59.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.
1 JAN 0905	110	41.	*	1 JAN 1930	235	58.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.
1 JAN 0910	111	41.	*	1 JAN 1935	236	57.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.
1 JAN 0915	112	42.	*	1 JAN 1940	237	55.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.
1 JAN 0920	113	42.	*	1 JAN 1945	238	54.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.
1 JAN 0925	114	43.	*	1 JAN 1950	239	53.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.
1 JAN 0930	115	44.	*	1 JAN 1955	240	51.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.
1 JAN 0935	116	45.	*	1 JAN 2000	241	50.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.
1 JAN 0940	117	45.	*	1 JAN 2005	242	49.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.
1 JAN 0945	118	46.	*	1 JAN 2010	243	48.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.
1 JAN 0950	119	47.	*	1 JAN 2015	244	47.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.
1 JAN 0955	120	48.	*	1 JAN 2020	245	47.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.
1 JAN 1000	121	49.	*	1 JAN 2025	246	46.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.
1 JAN 1005	122	50.	*	1 JAN 2030	247	45.	*	2 JAN 0655	372	1.	*	2 JAN 1720	497	0.
1 JAN 1010	123	51.	*	1 JAN 2035	248	45.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	52.	*	1 JAN 2040	249	44.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	53.	*	1 JAN 2045	250	44.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.
			*				*				*			

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 10320.	12.83		2324.	609.	352.	352.
		(INCHES)	1.780	1.866	1.870	1.870
		(AC-FT)	1153.	1209.	1211.	1211.

CUMULATIVE AREA = 12.14 SQ MI

HYDROGRAPH AT C010L
TRANSPOSITION AREA 1.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	54.	*	1 JAN 2050	251	42.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	55.	*	1 JAN 2055	252	42.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	57.	*	1 JAN 2100	253	41.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	58.	*	1 JAN 2105	254	40.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	60.	*	1 JAN 2110	255	40.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	63.	*	1 JAN 2115	256	39.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	65.	*	1 JAN 2120	257	38.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	68.	*	1 JAN 2125	258	37.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	72.	*	1 JAN 2130	259	36.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	77.	*	1 JAN 2135	260	35.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	82.	*	1 JAN 2140	261	34.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	90.	*	1 JAN 2145	262	34.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	100.	*	1 JAN 2150	263	33.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	116.	*	1 JAN 2155	264	32.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	149.	*	1 JAN 2200	265	31.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	229.	*	1 JAN 2205	266	31.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	367.	*	1 JAN 2210	267	30.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	629.	*	1 JAN 2215	268	30.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	1027.	*	1 JAN 2220	269	29.	*	2 JAN 0845	394	0.
1 JAN 0135	20	3.	*	1 JAN 1200	145	1673.	*	1 JAN 2225	270	29.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	2510.	*	1 JAN 2230	271	29.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2956.	*	1 JAN 2235	272	29.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	3076.	*	1 JAN 2240	273	29.	*	2 JAN 0905	398	0.
1 JAN 0155	24	5.	*	1 JAN 1220	149	3072.	*	1 JAN 2245	274	28.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	3500.	*	1 JAN 2250	275	28.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	4870.	*	1 JAN 2255	276	28.	*	2 JAN 0920	401	0.
1 JAN 0210	27	6.	*	1 JAN 1235	152	6917.	*	1 JAN 2300	277	28.	*	2 JAN 0925	402	0.
1 JAN 0215	28	6.	*	1 JAN 1240	153	8773.	*	1 JAN 2305	278	28.	*	2 JAN 0930	403	0.
1 JAN 0220	29	7.	*	1 JAN 1245	154	9816.	*	1 JAN 2310	279	27.	*	2 JAN 0935	404	0.
1 JAN 0225	30	7.	*	1 JAN 1250	155	10209.	*	1 JAN 2315	280	27.	*	2 JAN 0940	405	0.
1 JAN 0230	31	8.	*	1 JAN 1255	156	10043.	*	1 JAN 2320	281	27.	*	2 JAN 0945	406	0.
1 JAN 0235	32	8.	*	1 JAN 1300	157	9578.	*	1 JAN 2325	282	27.	*	2 JAN 0950	407	0.
1 JAN 0240	33	9.	*	1 JAN 1305	158	8996.	*	1 JAN 2330	283	26.	*	2 JAN 0955	408	0.
1 JAN 0245	34	10.	*	1 JAN 1310	159	8299.	*	1 JAN 2335	284	26.	*	2 JAN 1000	409	0.
1 JAN 0250	35	10.	*	1 JAN 1315	160	7516.	*	1 JAN 2340	285	26.	*	2 JAN 1005	410	0.
1 JAN 0255	36	11.	*	1 JAN 1320	161	6759.	*	1 JAN 2345	286	26.	*	2 JAN 1010	411	0.
1 JAN 0300	37	11.	*	1 JAN 1325	162	6119.	*	1 JAN 2350	287	26.	*	2 JAN 1015	412	0.
1 JAN 0305	38	12.	*	1 JAN 1330	163	5478.	*	1 JAN 2355	288	26.	*	2 JAN 1020	413	0.
1 JAN 0310	39	12.	*	1 JAN 1335	164	4859.	*	2 JAN 0000	289	25.	*	2 JAN 1025	414	0.
1 JAN 0315	40	13.	*	1 JAN 1340	165	4337.	*	2 JAN 0005	290	25.	*	2 JAN 1030	415	0.

1	JAN	0320	41	14.	*	1	JAN	1345	166	3971.	*	2	JAN	0010	291	25.	*	2	JAN	1035	416	0.
1	JAN	0325	42	14.	*	1	JAN	1350	167	3592.	*	2	JAN	0015	292	24.	*	2	JAN	1040	417	0.
1	JAN	0330	43	15.	*	1	JAN	1355	168	3224.	*	2	JAN	0020	293	24.	*	2	JAN	1045	418	0.
1	JAN	0335	44	15.	*	1	JAN	1400	169	2898.	*	2	JAN	0025	294	24.	*	2	JAN	1050	419	0.
1	JAN	0340	45	16.	*	1	JAN	1405	170	2624.	*	2	JAN	0030	295	23.	*	2	JAN	1055	420	0.
1	JAN	0345	46	16.	*	1	JAN	1410	171	2425.	*	2	JAN	0035	296	23.	*	2	JAN	1100	421	0.
1	JAN	0350	47	17.	*	1	JAN	1415	172	2183.	*	2	JAN	0040	297	23.	*	2	JAN	1105	422	0.
1	JAN	0355	48	17.	*	1	JAN	1420	173	1860.	*	2	JAN	0045	298	23.	*	2	JAN	1110	423	0.
1	JAN	0400	49	18.	*	1	JAN	1425	174	1406.	*	2	JAN	0050	299	22.	*	2	JAN	1115	424	0.
1	JAN	0405	50	18.	*	1	JAN	1430	175	833.	*	2	JAN	0055	300	22.	*	2	JAN	1120	425	0.
1	JAN	0410	51	19.	*	1	JAN	1435	176	685.	*	2	JAN	0100	301	22.	*	2	JAN	1125	426	0.
1	JAN	0415	52	19.	*	1	JAN	1440	177	612.	*	2	JAN	0105	302	22.	*	2	JAN	1130	427	0.
1	JAN	0420	53	19.	*	1	JAN	1445	178	559.	*	2	JAN	0110	303	22.	*	2	JAN	1135	428	0.
1	JAN	0425	54	20.	*	1	JAN	1450	179	509.	*	2	JAN	0115	304	21.	*	2	JAN	1140	429	0.
1	JAN	0430	55	20.	*	1	JAN	1455	180	466.	*	2	JAN	0120	305	21.	*	2	JAN	1145	430	0.
1	JAN	0435	56	21.	*	1	JAN	1500	181	430.	*	2	JAN	0125	306	21.	*	2	JAN	1150	431	0.
1	JAN	0440	57	21.	*	1	JAN	1505	182	398.	*	2	JAN	0130	307	21.	*	2	JAN	1155	432	0.
1	JAN	0445	58	21.	*	1	JAN	1510	183	368.	*	2	JAN	0135	308	20.	*	2	JAN	1200	433	0.
1	JAN	0450	59	21.	*	1	JAN	1515	184	339.	*	2	JAN	0140	309	20.	*	2	JAN	1205	434	0.
1	JAN	0455	60	22.	*	1	JAN	1520	185	313.	*	2	JAN	0145	310	20.	*	2	JAN	1210	435	0.
1	JAN	0500	61	22.	*	1	JAN	1525	186	292.	*	2	JAN	0150	311	19.	*	2	JAN	1215	436	0.
1	JAN	0505	62	22.	*	1	JAN	1530	187	274.	*	2	JAN	0155	312	19.	*	2	JAN	1220	437	0.
1	JAN	0510	63	23.	*	1	JAN	1535	188	256.	*	2	JAN	0200	313	18.	*	2	JAN	1225	438	0.
1	JAN	0515	64	23.	*	1	JAN	1540	189	239.	*	2	JAN	0205	314	18.	*	2	JAN	1230	439	0.
1	JAN	0520	65	23.	*	1	JAN	1545	190	223.	*	2	JAN	0210	315	17.	*	2	JAN	1235	440	0.
1	JAN	0525	66	23.	*	1	JAN	1550	191	208.	*	2	JAN	0215	316	17.	*	2	JAN	1240	441	0.
1	JAN	0530	67	24.	*	1	JAN	1555	192	195.	*	2	JAN	0220	317	16.	*	2	JAN	1245	442	0.
1	JAN	0535	68	24.	*	1	JAN	1600	193	185.	*	2	JAN	0225	318	15.	*	2	JAN	1250	443	0.
1	JAN	0540	69	24.	*	1	JAN	1605	194	176.	*	2	JAN	0230	319	15.	*	2	JAN	1255	444	0.
1	JAN	0545	70	25.	*	1	JAN	1610	195	169.	*	2	JAN	0235	320	14.	*	2	JAN	1300	445	0.
1	JAN	0550	71	25.	*	1	JAN	1615	196	161.	*	2	JAN	0240	321	13.	*	2	JAN	1305	446	0.
1	JAN	0555	72	25.	*	1	JAN	1620	197	154.	*	2	JAN	0245	322	13.	*	2	JAN	1310	447	0.
1	JAN	0600	73	26.	*	1	JAN	1625	198	147.	*	2	JAN	0250	323	12.	*	2	JAN	1315	448	0.
1	JAN	0605	74	26.	*	1	JAN	1630	199	140.	*	2	JAN	0255	324	12.	*	2	JAN	1320	449	0.
1	JAN	0610	75	27.	*	1	JAN	1635	200	134.	*	2	JAN	0300	325	11.	*	2	JAN	1325	450	0.
1	JAN	0615	76	27.	*	1	JAN	1640	201	128.	*	2	JAN	0305	326	10.	*	2	JAN	1330	451	0.
1	JAN	0620	77	28.	*	1	JAN	1645	202	123.	*	2	JAN	0310	327	10.	*	2	JAN	1335	452	0.
1	JAN	0625	78	28.	*	1	JAN	1650	203	118.	*	2	JAN	0315	328	9.	*	2	JAN	1340	453	0.
1	JAN	0630	79	28.	*	1	JAN	1655	204	113.	*	2	JAN	0320	329	9.	*	2	JAN	1345	454	0.
1	JAN	0635	80	29.	*	1	JAN	1700	205	109.	*	2	JAN	0325	330	8.	*	2	JAN	1350	455	0.
1	JAN	0640	81	29.	*	1	JAN	1705	206	106.	*	2	JAN	0330	331	8.	*	2	JAN	1355	456	0.
1	JAN	0645	82	29.	*	1	JAN	1710	207	103.	*	2	JAN	0335	332	7.	*	2	JAN	1400	457	0.
1	JAN	0650	83	30.	*	1	JAN	1715	208	100.	*	2	JAN	0340	333	7.	*	2	JAN	1405	458	0.
1	JAN	0655	84	30.	*	1	JAN	1720	209	97.	*	2	JAN	0345	334	7.	*	2	JAN	1410	459	0.
1	JAN	0700	85	31.	*	1	JAN	1725	210	95.	*	2	JAN	0350	335	6.	*	2	JAN	1415	460	0.
1	JAN	0705	86	31.	*	1	JAN	1730	211	93.	*	2	JAN	0355	336	6.	*	2	JAN	1420	461	0.
1	JAN	0710	87	32.	*	1	JAN	1735	212	91.	*	2	JAN	0400	337	6.	*	2	JAN	1425	462	0.
1	JAN	0715	88	32.	*	1	JAN	1740	213	90.	*	2	JAN	0405	338	5.	*	2	JAN	1430	463	0.
1	JAN	0720	89	33.	*	1	JAN	1745	214	88.	*	2	JAN	0410	339	5.	*	2	JAN	1435	464	0.
1	JAN	0725	90	33.	*	1	JAN	1750	215	87.	*	2	JAN	0415	340	5.	*	2	JAN	1440	465	0.
1	JAN	0730	91	34.	*	1	JAN	1755	216	85.	*	2	JAN	0420	341	4.	*	2	JAN	1445	466	0.
1	JAN	0735	92	34.	*	1	JAN	1800	217	83.	*	2	JAN	0425	342	4.	*	2	JAN	1450	467	0.
1	JAN	0740	93	34.	*	1	JAN	1805	218	81.	*	2	JAN	0430	343	4.	*	2	JAN	1455	468	0.
1	JAN	0745	94	35.	*	1	JAN	1810	219	80.	*	2	JAN	0435	344	4.	*	2	JAN	1500	469	0.
1	JAN	0750	95	35.	*	1	JAN	1815	220	78.	*	2	JAN	0440	345	3.	*	2	JAN	1505	470	0.
1	JAN	0755	96	35.	*	1	JAN	1820	221	76.	*	2	JAN	0445	346	3.	*	2	JAN	1510	471	0.
1	JAN	0800	97	36.	*	1	JAN	1825	222	75.	*	2	JAN	0450	347	3.	*	2	JAN	1515	472	0.
1	JAN	0805	98	36.	*	1	JAN	1830	223	74.	*	2	JAN	0455	348	3.	*	2	JAN	1520	473	0.
1	JAN	0810	99	36.	*	1	JAN	1835	224	72.	*	2	JAN	0500	349	3.	*	2	JAN	1525	474	0.
1	JAN	0815	100	37.	*	1	JAN	1840	225	71.	*	2	JAN	0505	350	2.	*	2	JAN	1530	475	0.
1	JAN	0820	101	37.	*	1	JAN	1845	226	70.	*	2	JAN	0510	351	2.	*	2	JAN	1535	476	0.
1	JAN	0825	102	37.	*	1	JAN	1850	227	68.	*	2	JAN	0515	352	2.	*	2	JAN	1540	477	0.
1	JAN	0830	103	38.	*	1	JAN	1855	228	67.	*	2	JAN	0520	353	2.	*	2	JAN	1545	478	0.
1	JAN	0835	104	38.	*	1	JAN	1900	229	66.	*	2	JAN	0525	354	2.	*	2	JAN	1550	479	0.
1	JAN	0840	105	39.	*	1	JAN	1905	230	64.	*	2	JAN	0530	355	2.	*	2	JAN	1555	480	0.
1	JAN	0845	106	39.	*	1	JAN	1910	231	63.	*	2	JAN	0535	356	2.	*	2	JAN	1600	481	0.
1	JAN	0850	107	39.	*	1	JAN	1915	232	61.	*	2	JAN	0540	357	1.	*	2	JAN	1605	482	0.
1	JAN	0855	108	40.	*	1	JAN	1920	233	60.	*	2	JAN	0545	358	1.	*	2	JAN	1610	483	0.
1	JAN	0900	109	40.	*	1	JAN	1925	234	58.	*	2	JAN	0550	359	1.	*	2	JAN	1615	484	0.
1	JAN	0905	110	40.	*	1	JAN	1930	235	57.	*	2	JAN	0555	360	1.	*	2	JAN	1620	485	0.
1	JAN	0910	111	41.	*	1	JAN	1935	236	56.	*	2	JAN	0600	361	1.	*	2	JAN	1625	486	0.
1	JAN	0915	112	41.	*	1	JAN	1940	237	54.	*	2	JAN	0605	362	1.	*	2	JAN	1630	487	0.
1	JAN	0920	113	42.	*	1	JAN	1945	238	53.	*	2	JAN	0610	363	1.	*	2	JAN	1635	488	0.
1	JAN	0925	114	43.	*	1	JAN	1950	239	52.	*	2	JAN	0615	364	1.	*	2	JAN	1640	489	0.
1	JAN	0930	115	44.	*	1	JAN	1955	240	51.	*	2	JAN	0620	365	1.	*	2	JAN	1645	490	0.
1	JAN	0935	116	44.	*	1	JAN	2000	241	49.	*	2	JAN	0625	366	1.	*	2	JAN	1650	491	0.
1	JAN	0940	117	45.	*	1	JAN	2005	242	48.	*	2	JAN	0630	367	1.	*	2	JAN	1655	492	0.
1	JAN	0945	118	46.	*	1	JAN	2010	243	47.	*	2	JAN	0635	368	1.	*	2	JAN	1700	493	0.
1	JAN	0950	119	47.	*	1	JAN	2015	244	47.	*	2	JAN	0640	369	1.	*	2	JAN	1705	494	0.
1	JAN	0955	120	48.	*	1	JAN	2020	245	46.	*	2	JAN	0645	370	1.	*	2	JAN	1710	495	0.
1	JAN	1000	121	49.	*	1	JAN	2025	246	45.	*	2	JAN	0650	371	1.	*	2	JAN	1715	496	0.
1	JAN	1005	122	50.	*	1	JAN	2030	247	45.	*	2	JAN	0655	372	1.	*	2	JAN	1720	497	0.
1	JAN	1010	123	50.	*	1	JAN	2035	248	44.	*	2	JAN	0700	373	0.	*	2	JAN	1725	498	0.
1	JAN	1015	124	51.	*	1	JAN	2040	249	44.	*	2	JAN	0705	374	0.	*	2	JAN	1730	499	0.
1	JAN	1020	125	53.	*	1	JAN	2045	250	43.	*	2	JAN	0710	375	0.	*	2	JAN	1735	500	0.
					*						*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 10209.	12.83		2300.	603.	349.	349.
		(INCHES)	1.761	1.847	1.850	1.850
		(AC-FT)	1141.	1196.	1198.	1198.

CUMULATIVE AREA = 12.14 SQ MI

****

HYDROGRAPH AT C010L
TRANSPOSITION AREA 5.0 SQ MI

****

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	*	1	JAN	1025	126	52.	*	1	JAN	2050	251	40.	*	2	JAN	0715	376	0.
1	JAN	0005	2	0.	*	1	JAN	1030	127	54.	*	1	JAN	2055	252	39.	*	2	JAN	0720	377	0.
1	JAN	0010	3	0.	*	1	JAN	1035	128	55.	*	1	JAN	2100	253	39.	*	2	JAN	0725	378	0.
1	JAN	0015	4	0.	*	1	JAN	1040	129	57.	*	1	JAN	2105	254	38.	*	2	JAN	0730	379	0.
1	JAN	0020	5	1.	*	1	JAN	1045	130	58.	*	1	JAN	2110	255	37.	*	2	JAN	0735	380	0.
1	JAN	0025	6	1.	*	1	JAN	1050	131	60.	*	1	JAN	2115	256	37.	*	2	JAN	0740	381	0.
1	JAN	0030	7	1.	*	1	JAN	1055	132	63.	*	1	JAN	2120	257	36.	*	2	JAN	0745	382	0.
1	JAN	0035	8	1.	*	1	JAN	1100	133	65.	*	1	JAN	2125	258	35.	*	2	JAN	0750	383	0.
1	JAN	0040	9	2.	*	1	JAN	1105	134	68.	*	1	JAN	2130	259	34.	*	2	JAN	0755	384	0.
1	JAN	0045	10	2.	*	1	JAN	1110	135	72.	*	1	JAN	2135	260	33.	*	2	JAN	0800	385	0.
1	JAN	0050	11	2.	*	1	JAN	1115	136	77.	*	1	JAN	2140	261	33.	*	2	JAN	0805	386	0.
1	JAN	0055	12	2.	*	1	JAN	1120	137	83.	*	1	JAN	2145	262	32.	*	2	JAN	0810	387	0.
1	JAN	0100	13	2.	*	1	JAN	1125	138	91.	*	1	JAN	2150	263	31.	*	2	JAN	0815	388	0.
1	JAN	0105	14	2.	*	1	JAN	1130	139	103.	*	1	JAN	2155	264	31.	*	2	JAN	0820	389	0.
1	JAN	0110	15	2.	*	1	JAN	1135	140	136.	*	1	JAN	2200	265	30.	*	2	JAN	0825	390	0.
1	JAN	0115	16	3.	*	1	JAN	1140	141	212.	*	1	JAN	2205	266	30.	*	2	JAN	0830	391	0.
1	JAN	0120	17	3.	*	1	JAN	1145	142	343.	*	1	JAN	2210	267	29.	*	2	JAN	0835	392	0.
1	JAN	0125	18	3.	*	1	JAN	1150	143	589.	*	1	JAN	2215	268	29.	*	2	JAN	0840	393	0.
1	JAN	0130	19	3.	*	1	JAN	1155	144	968.	*	1	JAN	2220	269	29.	*	2	JAN	0845	394	0.
1	JAN	0135	20	3.	*	1	JAN	1200	145	1587.	*	1	JAN	2225	270	29.	*	2	JAN	0850	395	0.
1	JAN	0140	21	4.	*	1	JAN	1205	146	2421.	*	1	JAN	2230	271	28.	*	2	JAN	0855	396	0.
1	JAN	0145	22	4.	*	1	JAN	1210	147	2889.	*	1	JAN	2235	272	28.	*	2	JAN	0900	397	0.
1	JAN	0150	23	4.	*	1	JAN	1215	148	2996.	*	1	JAN	2240	273	28.	*	2	JAN	0905	398	0.
1	JAN	0155	24	4.	*	1	JAN	1220	149	2986.	*	1	JAN	2245	274	28.	*	2	JAN	0910	399	0.
1	JAN	0200	25	5.	*	1	JAN	1225	150	3367.	*	1	JAN	2250	275	28.	*	2	JAN	0915	400	0.
1	JAN	0205	26	5.	*	1	JAN	1230	151	4608.	*	1	JAN	2255	276	27.	*	2	JAN	0920	401	0.
1	JAN	0210	27	6.	*	1	JAN	1235	152	6511.	*	1	JAN	2300	277	27.	*	2	JAN	0925	402	0.
1	JAN	0215	28	6.	*	1	JAN	1240	153	8304.	*	1	JAN	2305	278	27.	*	2	JAN	0930	403	0.
1	JAN	0220	29	7.	*	1	JAN	1245	154	9378.	*	1	JAN	2310	279	27.	*	2	JAN	0935	404	0.
1	JAN	0225	30	7.	*	1	JAN	1250	155	9803.	*	1	JAN	2315	280	26.	*	2	JAN	0940	405	0.
1	JAN	0230	31	8.	*	1	JAN	1255	156	9704.	*	1	JAN	2320	281	26.	*	2	JAN	0945	406	0.
1	JAN	0235	32	8.	*	1	JAN	1300	157	9308.	*	1	JAN	2325	282	26.	*	2	JAN	0950	407	0.
1	JAN	0240	33	9.	*	1	JAN	1305	158	8757.	*	1	JAN	2330	283	26.	*	2	JAN	0955	408	0.
1	JAN	0245	34	9.	*	1	JAN	1310	159	8061.	*	1	JAN	2335	284	26.	*	2	JAN	1000	409	0.
1	JAN	0250	35	10.	*	1	JAN	1315	160	7298.	*	1	JAN	2340	285	26.	*	2	JAN	1005	410	0.
1	JAN	0255	36	10.	*	1	JAN	1320	161	6575.	*	1	JAN	2345	286	25.	*	2	JAN	1010	411	0.
1	JAN	0300	37	11.	*	1	JAN	1325	162	5974.	*	1	JAN	2350	287	25.	*	2	JAN	1015	412	0.
1	JAN	0305	38	12.	*	1	JAN	1330	163	5335.	*	1	JAN	2355	288	25.	*	2	JAN	1020	413	0.
1	JAN	0310	39	12.	*	1	JAN	1335	164	4740.	*	2	JAN	0000	289	25.	*	2	JAN	1025	414	0.
1	JAN	0315	40	13.	*	1	JAN	1340	165	4247.	*	2	JAN	0005	290	25.	*	2	JAN	1030	415	0.
1	JAN	0320	41	13.	*	1	JAN	1345	166	3887.	*	2	JAN	0010	291	24.	*	2	JAN	1035	416	0.
1	JAN	0325	42	14.	*	1	JAN	1350	167	3509.	*	2	JAN	0015	292	24.	*	2	JAN	1040	417	0.
1	JAN	0330	43	14.	*	1	JAN	1355	168	3147.	*	2	JAN	0020	293	23.	*	2	JAN	1045	418	0.
1	JAN	0335	44	15.	*	1	JAN	1400	169	2834.	*	2	JAN	0025	294	23.	*	2	JAN	1050	419	0.
1	JAN	0340	45	15.	*	1	JAN	1405	170	2580.	*	2	JAN	0030	295	23.	*	2	JAN	1055	420	0.
1	JAN	0345	46	16.	*	1	JAN	1410	171	2374.	*	2	JAN	0035	296	23.	*	2	JAN	1100	421	0.
1	JAN	0350	47	16.	*	1	JAN	1415	172	2116.	*	2	JAN	0040	297	22.	*	2	JAN	1105	422	0.
1	JAN	0355	48	17.	*	1	JAN	1420	173	1772.	*	2	JAN	0045	298	22.	*	2	JAN	1110	423	0.
1	JAN	0400	49	17.	*	1	JAN	1425	174	1265.	*	2	JAN	0050	299	22.	*	2	JAN	1115	424	0.
1	JAN	0405	50	18.	*	1	JAN	1430	175	767.	*	2	JAN	0055	300	22.	*	2	JAN	1120	425	0.
1	JAN	0410	51	18.	*	1	JAN	1435	176	659.	*	2	JAN	0100	301	22.	*	2	JAN	1125	426	0.
1	JAN	0415	52	19.	*	1	JAN	1440	177	595.	*	2	JAN	0105	302	21.	*	2	JAN	1130	427	0.
1	JAN	0420	53	19.	*	1	JAN	1445	178	542.	*	2	JAN	0110	303	21.	*	2	JAN	1135	428	0.
1	JAN	0425	54	19.	*	1	JAN	1450	179	493.	*	2	JAN	0115	304	21.	*	2	JAN	1140	429	0.
1	JAN	0430	55	20.	*	1	JAN	1455	180	451.	*	2	JAN	0120	305	21.	*	2	JAN	1145	430	0.
1	JAN	0435	56	20.	*	1	JAN	1500	181	418.	*	2	JAN	0125	306	20.	*	2	JAN	1150	431	0.
1	JAN	0440	57	20.	*	1	JAN	1505	182	385.	*	2	JAN	0130	307	20.	*	2	JAN	1155	432	0.
1	JAN	0445	58	21.	*	1	JAN	1510	183	355.	*	2	JAN	0135	308	20.	*	2	JAN	1200	433	0.
1	JAN	0450	59	21.	*	1	JAN	1515	184	327.	*	2	JAN	0140	309	19.	*	2	JAN	1205	434	0.
1	JAN	0455	60	21.	*	1	JAN	1520	185	303.	*	2	JAN	0145	310	19.	*	2	JAN	1210	435	0.
1	JAN	0500	61	21.	*	1	JAN	1525	186	283.	*	2	JAN	0150	311	19.	*	2	JAN	1215	436	0.
1	JAN	0505	62	22.	*	1	JAN	1530	187	265.	*	2	JAN	0155	312	18.	*	2	JAN	1220	437	0.
1	JAN	0510	63	22.	*	1	JAN	1535	188	247.	*	2	JAN	0200	313	18.	*	2	JAN	1225	438	0.
1	JAN	0515	64	22.	*	1	JAN	1540	189	230.	*	2	JAN	0205	314	17.	*	2	JAN	1230	439	0.
1	JAN	0520	65	22.	*	1	JAN	1545	190	214.	*	2	JAN	0210	315	17.	*	2	JAN	1235	440	0.
1	JAN	0525	66	23.	*	1	JAN	1550	191	200.	*	2	JAN	0215	316	16.	*	2	JAN	1240	441	0.
1	JAN	0530	67	23.	*	1	JAN	1555	192	188.	*	2	JAN	0220	317	16.	*	2	JAN	1245	442	0.
1	JAN	0535	68	23.	*	1	JAN	1600	193	178.	*	2	JAN	0225	318	15.	*	2	JAN	1250	443	0.
1	JAN	0540	69	24.	*	1	JAN	1605	194	170.	*	2	JAN	0230	319	14.	*	2	JAN	1255	444	0.
1	JAN	0545	70	24.	*	1	JAN	1610	195	162.	*	2	JAN	0235	320	14.	*	2	JAN	1300	445	0.
1	JAN	0550	71	24.	*	1	JAN	1615	196	155.	*	2	JAN	0240	321	13.	*	2	JAN	1305	446	0.
1	JAN	0555	72	25.	*	1	JAN	1620	197	147.	*	2	JAN	0245	322	13.	*	2	JAN	1310	447	0.
1	JAN	0600	73	25.	*	1	JAN	1625	198	140.	*	2	JAN	0250	323	12.	*	2	JAN	1315	448	0.
1	JAN	0605	74	25.	*	1	JAN	1630	199	134.	*	2	JAN	0255	324	11.	*	2	JAN	1320	449	0.
1	JAN	0610	75	26.	*	1	JAN	1635	200	127.	*	2	JAN	0300	325	11.	*	2	JAN	1325	450	0.
1	JAN	0615	76	26.	*	1	JAN	1640	201	122.	*	2	JAN	0305	326	10.	*	2	JAN	1330	451	0.
1	JAN	0620	77	27.	*	1	JAN	1645	202	117.	*	2	JAN	0310	327	10.	*	2	JAN	1335	452	0.
1	JAN	0625	78	27.	*	1	JAN	1650	203	112.	*	2	JAN	0315	328	9.	*	2	JAN	1340	453	0.
1	JAN	0630	79	28.	*	1	JAN	1655	204	107.	*	2	JAN	0320	329	9.	*	2	JAN	1345	454	0.
1	JAN	0635	80	28.	*	1	JAN	1700	205	104.	*	2	JAN	0325	330	8.	*	2	JAN	1350	455	0.
1	JAN	0640	81	28.	*	1	JAN	1705	206	100.	*	2	JAN	0330	331	8.	*	2	JAN	1355	456	0.
1	JAN	0645	82	29.	*	1	JAN	1710	207	97.	*	2	JAN	0335	332	7.	*	2	JAN	1400	457	0.
1	JAN	0650	83	29.	*	1	JAN	1715	208	95.	*	2	JAN	0340	333	7.	*	2	JAN	1405	458	0.
1	JAN	0655	84	29.	*	1	JAN	1720	209	93.	*	2	JAN	0345	334	6.	*	2	JAN	1410	459	0.
1	JAN	0700	85	29.	*	1	JAN	1725	210	91.	*	2	JAN	0350	335	6.	*	2	JAN	1415	460	0.
1	JAN	0705	86	30.	*	1	JAN	1730	211	90.	*	2	JAN	0355	336	6.	*	2	JAN	1420	461	0.
1	JAN	0710	87	30.	*	1	JAN	1735	212	88.	*	2	JAN	0400	337	5.	*	2	JAN	1425	462	0.
1	JAN	0715	88	31.	*	1	JAN	1740	213	87.	*	2	JAN	0405	338	5.	*	2	JAN	1430	463	0.
1	JAN	0720	89	32.	*	1	JAN	1745	214	85.	*	2	JAN	0410	339	5.	*	2	JAN	1435	464	0.
1	JAN	0725	90	32.	*	1	JAN	1750	215	83.	*	2	JAN	0415	340	4.	*	2	JAN	1440	465	0.
1	JAN	0730	91	33.	*	1	JAN	1755	216	81.	*	2	JAN	0420	341	4.	*	2	JAN	1445	466	0.
1	JAN	0735	92	33.	*	1	JAN	1800	217	80.	*	2	JAN	0425	342	4.	*	2	JAN	1450	467	0.
1	JAN	0740	93	33.	*	1	JAN	1805	218	78.	*	2	JAN	0430	343	4.	*	2	JAN	1455	468	0.
1	JAN	0745	94	34.	*	1	JAN	1810	219	76.	*	2	JAN	0435	344	3.	*	2	JAN	1500	469	0.
1	JAN	0750	95	34.	*	1	JAN	1815	220	75.	*	2	JAN	0440	345	3.	*	2	JAN	1505	470	0.
1	JAN	0755	96	34.	*	1	JAN	1820	221	73.	*	2	JAN	0445	346	3.	*	2	JAN	1510	471	0.
1	JAN	0800	97	35.	*	1	JAN	1825	222	72.	*	2	JAN	0450	347	3.	*	2	JAN	1515	472	0.
1	JAN	0805	98	35.	*	1	JAN	1830	223	70.	*	2	JAN	0455	348	3.	*	2	JAN	1520	473	0.
1	JAN	0810	99	35.	*	1	JAN	1835	224	69.	*	2	JAN	0500	349	2.	*	2	JAN	1525	474	0.
1	JAN	0815	100	36.	*	1	JAN	1840	225	68.	*	2	JAN	0505	350	2.	*	2	JAN	1530	475	0.
1	JAN	0820	101	36.	*	1	JAN	1845	226	66.	*	2	JAN	0510	351	2.	*	2	JAN	1535	476	0.
1	JAN	0825	102	37.	*	1	JAN	1850	227	65.	*	2	JAN	0515	352	2.	*	2	JAN	1540	477	0.
1	JAN	0830	103	37.	*	1	JAN	1855	228	64.	*	2	JAN	0520	353	2.	*	2	JAN	1545	478	0.
1	JAN	0835	104	37.	*	1	JAN	1900	229	62.	*	2	JAN	0525	354	2.	*	2	JAN	1550	479	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0840	105	38.	1	JAN	1905	230	61.	2	JAN	0530	355	2.	2	JAN	1555	480	0.
1	JAN	0845	106	38.	1	JAN	1910	231	60.	2	JAN	0535	356	2.	2	JAN	1600	481	0.
1	JAN	0850	107	38.	1	JAN	1915	232	58.	2	JAN	0540	357	1.	2	JAN	1605	482	0.
1	JAN	0855	108	39.	1	JAN	1920	233	57.	2	JAN	0545	358	1.	2	JAN	1610	483	0.
1	JAN	0900	109	39.	1	JAN	1925	234	55.	2	JAN	0550	359	1.	2	JAN	1615	484	0.
1	JAN	0905	110	39.	1	JAN	1930	235	54.	2	JAN	0555	360	1.	2	JAN	1620	485	0.
1	JAN	0910	111	40.	1	JAN	1935	236	53.	2	JAN	0600	361	1.	2	JAN	1625	486	0.
1	JAN	0915	112	40.	1	JAN	1940	237	51.	2	JAN	0605	362	1.	2	JAN	1630	487	0.
1	JAN	0920	113	41.	1	JAN	1945	238	50.	2	JAN	0610	363	1.	2	JAN	1635	488	0.
1	JAN	0925	114	42.	1	JAN	1950	239	49.	2	JAN	0615	364	1.	2	JAN	1640	489	0.
1	JAN	0930	115	43.	1	JAN	1955	240	48.	2	JAN	0620	365	1.	2	JAN	1645	490	0.
1	JAN	0935	116	43.	1	JAN	2000	241	47.	2	JAN	0625	366	1.	2	JAN	1650	491	0.
1	JAN	0940	117	44.	1	JAN	2005	242	46.	2	JAN	0630	367	1.	2	JAN	1655	492	0.
1	JAN	0945	118	45.	1	JAN	2010	243	45.	2	JAN	0635	368	1.	2	JAN	1700	493	0.
1	JAN	0950	119	46.	1	JAN	2015	244	44.	2	JAN	0640	369	1.	2	JAN	1705	494	0.
1	JAN	0955	120	47.	1	JAN	2020	245	43.	2	JAN	0645	370	1.	2	JAN	1710	495	0.
1	JAN	1000	121	48.	1	JAN	2025	246	42.	2	JAN	0650	371	1.	2	JAN	1715	496	0.
1	JAN	1005	122	48.	1	JAN	2030	247	42.	2	JAN	0655	372	1.	2	JAN	1720	497	0.
1	JAN	1010	123	49.	1	JAN	2035	248	41.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	50.	1	JAN	2040	249	41.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	51.	1	JAN	2045	250	40.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 9803.	12.83		2220.	582.	337.	337.
		(INCHES)	1.700	1.783	1.786	1.786
		(AC-FT)	1101.	1154.	1156.	1156.

CUMULATIVE AREA = 12.14 SQ MI

HYDROGRAPH AT C010L
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	51.	1	JAN	2050	251	37.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	52.	1	JAN	2055	252	36.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	53.	1	JAN	2100	253	35.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	54.	1	JAN	2105	254	35.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	56.	1	JAN	2110	255	34.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	58.	1	JAN	2115	256	34.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	60.	1	JAN	2120	257	33.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	62.	1	JAN	2125	258	32.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	64.	1	JAN	2130	259	32.	2	JAN	0755	384	0.
1	JAN	0045	10	2.	1	JAN	1110	135	67.	1	JAN	2135	260	31.	2	JAN	0800	385	0.
1	JAN	0050	11	2.	1	JAN	1115	136	71.	1	JAN	2140	261	30.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	76.	1	JAN	2145	262	30.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	82.	1	JAN	2150	263	29.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	91.	1	JAN	2155	264	29.	2	JAN	0820	389	0.
1	JAN	0110	15	2.	1	JAN	1135	140	118.	1	JAN	2200	265	29.	2	JAN	0825	390	0.
1	JAN	0115	16	3.	1	JAN	1140	141	192.	1	JAN	2205	266	29.	2	JAN	0830	391	0.
1	JAN	0120	17	3.	1	JAN	1145	142	315.	1	JAN	2210	267	29.	2	JAN	0835	392	0.
1	JAN	0125	18	3.	1	JAN	1150	143	543.	1	JAN	2215	268	28.	2	JAN	0840	393	0.
1	JAN	0130	19	3.	1	JAN	1155	144	898.	1	JAN	2220	269	28.	2	JAN	0845	394	0.
1	JAN	0135	20	3.	1	JAN	1200	145	1485.	1	JAN	2225	270	28.	2	JAN	0850	395	0.
1	JAN	0140	21	3.	1	JAN	1205	146	2300.	1	JAN	2230	271	28.	2	JAN	0855	396	0.
1	JAN	0145	22	4.	1	JAN	1210	147	2804.	1	JAN	2235	272	27.	2	JAN	0900	397	0.
1	JAN	0150	23	4.	1	JAN	1215	148	2908.	1	JAN	2240	273	27.	2	JAN	0905	398	0.
1	JAN	0155	24	4.	1	JAN	1220	149	2897.	1	JAN	2245	274	27.	2	JAN	0910	399	0.
1	JAN	0200	25	5.	1	JAN	1225	150	3224.	1	JAN	2250	275	27.	2	JAN	0915	400	0.
1	JAN	0205	26	5.	1	JAN	1230	151	4305.	1	JAN	2255	276	26.	2	JAN	0920	401	0.
1	JAN	0210	27	5.	1	JAN	1235	152	6030.	1	JAN	2300	277	26.	2	JAN	0925	402	0.
1	JAN	0215	28	6.	1	JAN	1240	153	7753.	1	JAN	2305	278	26.	2	JAN	0930	403	0.
1	JAN	0220	29	6.	1	JAN	1245	154	8873.	1	JAN	2310	279	26.	2	JAN	0935	404	0.
1	JAN	0225	30	7.	1	JAN	1250	155	9311.	1	JAN	2315	280	26.	2	JAN	0940	405	0.
1	JAN	0230	31	7.	1	JAN	1255	156	9304.	1	JAN	2320	281	25.	2	JAN	0945	406	0.
1	JAN	0235	32	8.	1	JAN	1300	157	8983.	1	JAN	2325	282	25.	2	JAN	0950	407	0.
1	JAN	0240	33	8.	1	JAN	1305	158	8441.	1	JAN	2330	283	25.	2	JAN	0955	408	0.
1	JAN	0245	34	9.	1	JAN	1310	159	7761.	1	JAN	2335	284	25.	2	JAN	1000	409	0.
1	JAN	0250	35	10.	1	JAN	1315	160	7033.	1	JAN	2340	285	25.	2	JAN	1005	410	0.
1	JAN	0255	36	10.	1	JAN	1320	161	6376.	1	JAN	2345	286	25.	2	JAN	1010	411	0.
1	JAN	0300	37	11.	1	JAN	1325	162	5779.	1	JAN	2350	287	25.	2	JAN	1015	412	0.
1	JAN	0305	38	11.	1	JAN	1330	163	5157.	1	JAN	2355	288	24.	2	JAN	1020	413	0.
1	JAN	0310	39	12.	1	JAN	1335	164	4595.	2	JAN	0000	289	24.	2	JAN	1025	414	0.
1	JAN	0315	40	12.	1	JAN	1340	165	4149.	2	JAN	0005	290	24.	2	JAN	1030	415	0.
1	JAN	0320	41	13.	1	JAN	1345	166	3784.	2	JAN	0010	291	24.	2	JAN	1035	416	0.
1	JAN	0325	42	13.	1	JAN	1350	167	3409.	2	JAN	0015	292	23.	2	JAN	1040	417	0.
1	JAN	0330	43	14.	1	JAN	1355	168	3058.	2	JAN	0020	293	23.	2	JAN	1045	418	0.
1	JAN	0335	44	14.	1	JAN	1400	169	2759.	2	JAN	0025	294	22.	2	JAN	1050	419	0.
1	JAN	0340	45	15.	1	JAN	1405	170	2528.	2	JAN	0030	295	22.	2	JAN	1055	420	0.
1	JAN	0345	46	15.	1	JAN	1410	171	2311.	2	JAN	0035	296	22.	2	JAN	1100	421	0.
1	JAN	0350	47	16.	1	JAN	1415	172	2033.	2	JAN	0040	297	22.	2	JAN	1105	422	0.
1	JAN	0355	48	16.	1	JAN	1420	173	1655.	2	JAN	0045	298	22.	2	JAN	1110	423	0.
1	JAN	0400	49	17.	1	JAN	1425	174	1068.	2	JAN	0050	299	21.	2	JAN	1115	424	0.
1	JAN	0405	50	17.	1	JAN	1430	175	729.	2	JAN	0055	300	21.	2	JAN	1120	425	0.
1	JAN	0410	51	18.	1	JAN	1435	176	634.	2	JAN	0100	301	21.	2	JAN	1125	426	0.
1	JAN	0415	52	18.	1	JAN	1440	177	574.	2	JAN	0105	302	21.	2	JAN	1130	427	0.
1	JAN	0420	53	18.	1	JAN	1445	178	521.	2	JAN	0110	303	21.	2	JAN	1135	428	0.
1	JAN	0425	54	19.	1	JAN	1450	179	474.	2	JAN	0115	304	20.	2	JAN	1140	429	0.
1	JAN	0430	55	19.	1	JAN	1455	180	435.	2	JAN	0120	305	20.	2	JAN	1145	430	0.
1	JAN	0435	56	19.	1	JAN	1500	181	402.	2	JAN	0125	306	20.	2	JAN	1150	431	0.
1	JAN	0440	57	20.	1	JAN	1505	182	369.	2	JAN	0130	307	20.	2	JAN	1155	432	0.
1	JAN	0445	58	20.	1	JAN	1510	183	339.	2	JAN	0135	308	19.	2	JAN	1200	433	0.
1	JAN	0450	59	20.	1	JAN	1515	184	313.	2	JAN	0140	309	19.	2	JAN	1205	434	0.
1	JAN	0455	60	21.	1	JAN	1520	185	291.	2	JAN	0145	310	19.	2	JAN	1210	435	0.
1	JAN	0500	61	21.	1	JAN	1525	186	272.	2	JAN	0150	311	18.	2	JAN	1215	436	0.
1	JAN	0505	62	21.	1	JAN	1530	187	253.	2	JAN	0155	312	18.	2	JAN	1220	437	0.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0510	63	21.	1	JAN	1535	188	235.	2	JAN	0200	313	17.	2	JAN	1225	438	0.
1	JAN	0515	64	22.	1	JAN	1540	189	218.	2	JAN	0205	314	17.	2	JAN	1230	439	0.
1	JAN	0520	65	22.	1	JAN	1545	190	203.	2	JAN	0210	315	16.	2	JAN	1235	440	0.
1	JAN	0525	66	22.	1	JAN	1550	191	190.	2	JAN	0215	316	16.	2	JAN	1240	441	0.
1	JAN	0530	67	22.	1	JAN	1555	192	179.	2	JAN	0220	317	15.	2	JAN	1245	442	0.
1	JAN	0535	68	23.	1	JAN	1600	193	171.	2	JAN	0225	318	15.	2	JAN	1250	443	0.
1	JAN	0540	69	23.	1	JAN	1605	194	163.	2	JAN	0230	319	14.	2	JAN	1255	444	0.
1	JAN	0545	70	23.	1	JAN	1610	195	155.	2	JAN	0235	320	13.	2	JAN	1300	445	0.
1	JAN	0550	71	23.	1	JAN	1615	196	147.	2	JAN	0240	321	13.	2	JAN	1305	446	0.
1	JAN	0555	72	24.	1	JAN	1620	197	140.	2	JAN	0245	322	12.	2	JAN	1310	447	0.
1	JAN	0600	73	24.	1	JAN	1625	198	133.	2	JAN	0250	323	12.	2	JAN	1315	448	0.
1	JAN	0605	74	24.	1	JAN	1630	199	126.	2	JAN	0255	324	11.	2	JAN	1320	449	0.
1	JAN	0610	75	25.	1	JAN	1635	200	120.	2	JAN	0300	325	10.	2	JAN	1325	450	0.
1	JAN	0615	76	25.	1	JAN	1640	201	115.	2	JAN	0305	326	10.	2	JAN	1330	451	0.
1	JAN	0620	77	26.	1	JAN	1645	202	110.	2	JAN	0310	327	9.	2	JAN	1335	452	0.
1	JAN	0625	78	26.	1	JAN	1650	203	105.	2	JAN	0315	328	9.	2	JAN	1340	453	0.
1	JAN	0630	79	27.	1	JAN	1655	204	101.	2	JAN	0320	329	8.	2	JAN	1345	454	0.
1	JAN	0635	80	27.	1	JAN	1700	205	98.	2	JAN	0325	330	8.	2	JAN	1350	455	0.
1	JAN	0640	81	27.	1	JAN	1705	206	95.	2	JAN	0330	331	8.	2	JAN	1355	456	0.
1	JAN	0645	82	28.	1	JAN	1710	207	92.	2	JAN	0335	332	7.	2	JAN	1400	457	0.
1	JAN	0650	83	28.	1	JAN	1715	208	90.	2	JAN	0340	333	7.	2	JAN	1405	458	0.
1	JAN	0655	84	28.	1	JAN	1720	209	89.	2	JAN	0345	334	6.	2	JAN	1410	459	0.
1	JAN	0700	85	28.	1	JAN	1725	210	87.	2	JAN	0350	335	6.	2	JAN	1415	460	0.
1	JAN	0705	86	29.	1	JAN	1730	211	85.	2	JAN	0355	336	6.	2	JAN	1420	461	0.
1	JAN	0710	87	29.	1	JAN	1735	212	84.	2	JAN	0400	337	5.	2	JAN	1425	462	0.
1	JAN	0715	88	29.	1	JAN	1740	213	82.	2	JAN	0405	338	5.	2	JAN	1430	463	0.
1	JAN	0720	89	30.	1	JAN	1745	214	80.	2	JAN	0410	339	5.	2	JAN	1435	464	0.
1	JAN	0725	90	30.	1	JAN	1750	215	79.	2	JAN	0415	340	4.	2	JAN	1440	465	0.
1	JAN	0730	91	31.	1	JAN	1755	216	77.	2	JAN	0420	341	4.	2	JAN	1445	466	0.
1	JAN	0735	92	32.	1	JAN	1800	217	75.	2	JAN	0425	342	4.	2	JAN	1450	467	0.
1	JAN	0740	93	32.	1	JAN	1805	218	74.	2	JAN	0430	343	4.	2	JAN	1455	468	0.
1	JAN	0745	94	33.	1	JAN	1810	219	72.	2	JAN	0435	344	3.	2	JAN	1500	469	0.
1	JAN	0750	95	33.	1	JAN	1815	220	70.	2	JAN	0440	345	3.	2	JAN	1505	470	0.
1	JAN	0755	96	33.	1	JAN	1820	221	69.	2	JAN	0445	346	3.	2	JAN	1510	471	0.
1	JAN	0800	97	34.	1	JAN	1825	222	67.	2	JAN	0450	347	3.	2	JAN	1515	472	0.
1	JAN	0805	98	34.	1	JAN	1830	223	66.	2	JAN	0455	348	3.	2	JAN	1520	473	0.
1	JAN	0810	99	34.	1	JAN	1835	224	65.	2	JAN	0500	349	2.	2	JAN	1525	474	0.
1	JAN	0815	100	35.	1	JAN	1840	225	63.	2	JAN	0505	350	2.	2	JAN	1530	475	0.
1	JAN	0820	101	35.	1	JAN	1845	226	62.	2	JAN	0510	351	2.	2	JAN	1535	476	0.
1	JAN	0825	102	35.	1	JAN	1850	227	61.	2	JAN	0515	352	2.	2	JAN	1540	477	0.
1	JAN	0830	103	36.	1	JAN	1855	228	60.	2	JAN	0520	353	2.	2	JAN	1545	478	0.
1	JAN	0835	104	36.	1	JAN	1900	229	58.	2	JAN	0525	354	2.	2	JAN	1550	479	0.
1	JAN	0840	105	37.	1	JAN	1905	230	57.	2	JAN	0530	355	2.	2	JAN	1555	480	0.
1	JAN	0845	106	37.	1	JAN	1910	231	56.	2	JAN	0535	356	2.	2	JAN	1600	481	0.
1	JAN	0850	107	37.	1	JAN	1915	232	54.	2	JAN	0540	357	1.	2	JAN	1605	482	0.
1	JAN	0855	108	38.	1	JAN	1920	233	53.	2	JAN	0545	358	1.	2	JAN	1610	483	0.
1	JAN	0900	109	38.	1	JAN	1925	234	52.	2	JAN	0550	359	1.	2	JAN	1615	484	0.
1	JAN	0905	110	38.	1	JAN	1930	235	50.	2	JAN	0555	360	1.	2	JAN	1620	485	0.
1	JAN	0910	111	39.	1	JAN	1935	236	49.	2	JAN	0600	361	1.	2	JAN	1625	486	0.
1	JAN	0915	112	39.	1	JAN	1940	237	48.	2	JAN	0605	362	1.	2	JAN	1630	487	0.
1	JAN	0920	113	40.	1	JAN	1945	238	47.	2	JAN	0610	363	1.	2	JAN	1635	488	0.
1	JAN	0925	114	41.	1	JAN	1950	239	45.	2	JAN	0615	364	1.	2	JAN	1640	489	0.
1	JAN	0930	115	41.	1	JAN	1955	240	44.	2	JAN	0620	365	1.	2	JAN	1645	490	0.
1	JAN	0935	116	42.	1	JAN	2000	241	43.	2	JAN	0625	366	1.	2	JAN	1650	491	0.
1	JAN	0940	117	43.	1	JAN	2005	242	42.	2	JAN	0630	367	1.	2	JAN	1655	492	0.
1	JAN	0945	118	44.	1	JAN	2010	243	41.	2	JAN	0635	368	1.	2	JAN	1700	493	0.
1	JAN	0950	119	44.	1	JAN	2015	244	40.	2	JAN	0640	369	1.	2	JAN	1705	494	0.
1	JAN	0955	120	45.	1	JAN	2020	245	40.	2	JAN	0645	370	1.	2	JAN	1710	495	0.
1	JAN	1000	121	46.	1	JAN	2025	246	39.	2	JAN	0650	371	1.	2	JAN	1715	496	0.
1	JAN	1005	122	47.	1	JAN	2030	247	39.	2	JAN	0655	372	1.	2	JAN	1720	497	0.
1	JAN	1010	123	48.	1	JAN	2035	248	38.	2	JAN	0700	373	0.	2	JAN	1725	498	0.
1	JAN	1015	124	49.	1	JAN	2040	249	37.	2	JAN	0705	374	0.	2	JAN	1730	499	0.
1	JAN	1020	125	50.	1	JAN	2045	250	37.	2	JAN	0710	375	0.	2	JAN	1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)					
		(CFS)				
9311.	12.83		2125.	557.	322.	322.
		(INCHES)	1.627	1.706	1.709	1.709
		(AC-FT)	1054.	1104.	1107.	1107.

CUMULATIVE AREA = 12.14 SQ MI

HYDROGRAPH AT C010L
TRANSPOSITION AREA 30.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	49.	1	JAN	2050	251	32.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	50.	1	JAN	2055	252	32.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	51.	1	JAN	2100	253	31.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	52.	1	JAN	2105	254	31.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	53.	1	JAN	2110	255	30.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	55.	1	JAN	2115	256	30.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	57.	1	JAN	2120	257	29.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	58.	1	JAN	2125	258	29.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	61.	1	JAN	2130	259	29.	2	JAN	0755	384	0.
1	JAN	0045	10	2.	1	JAN	1110	135	63.	1	JAN	2135	260	29.	2	JAN	0800	385	0.
1	JAN	0050	11	2.	1	JAN	1115	136	66.	1	JAN	2140	261	28.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	70.	1	JAN	2145	262	28.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	74.	1	JAN	2150	263	28.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	80.	1	JAN	2155	264	28.	2	JAN	0820	389	0.
1	JAN	0110	15	2.	1	JAN	1135	140	102.	1	JAN	2200	265	28.	2	JAN	0825	390	0.
1	JAN	0115	16	2.	1	JAN	1140	141	164.	1	JAN	2205	266	27.	2	JAN	0830	391	0.
1	JAN	0120	17	3.	1	JAN	1145	142	277.	1	JAN	2210	267	27.	2	JAN	0835	392	0.
1	JAN	0125	18	3.	1	JAN	1150	143	485.	1	JAN	2215	268	27.	2	JAN	0840	393	0.
1	JAN	0130	19	3.	1	JAN	1155	144	805.	1	JAN	2220	269	27.	2	JAN	0845	394	0.
1	JAN	0135	20	3.	1	JAN	1200	145	1343.	1	JAN	2225	270	26.	2	JAN	0850	395	0.

1 JAN 0140	21	3.	*	1 JAN 1205	146	2127.	*	1 JAN 2230	271	26.	*	2 JAN 0855	396	0.			
1 JAN 0145	22	4.	*	1 JAN 1210	147	2678.	*	1 JAN 2235	272	26.	*	2 JAN 0900	397	0.			
1 JAN 0150	23	4.	*	1 JAN 1215	148	2789.	*	1 JAN 2240	273	26.	*	2 JAN 0905	398	0.			
1 JAN 0155	24	4.	*	1 JAN 1220	149	2776.	*	1 JAN 2245	274	25.	*	2 JAN 0910	399	0.			
1 JAN 0200	25	4.	*	1 JAN 1225	150	3029.	*	1 JAN 2250	275	25.	*	2 JAN 0915	400	0.			
1 JAN 0205	26	5.	*	1 JAN 1230	151	3883.	*	1 JAN 2255	276	25.	*	2 JAN 0920	401	0.			
1 JAN 0210	27	5.	*	1 JAN 1235	152	5354.	*	1 JAN 2300	277	25.	*	2 JAN 0925	402	0.			
1 JAN 0215	28	6.	*	1 JAN 1240	153	6999.	*	1 JAN 2305	278	25.	*	2 JAN 0930	403	0.			
1 JAN 0220	29	6.	*	1 JAN 1245	154	8219.	*	1 JAN 2310	279	25.	*	2 JAN 0935	404	0.			
1 JAN 0225	30	7.	*	1 JAN 1250	155	8701.	*	1 JAN 2315	280	24.	*	2 JAN 0940	405	0.			
1 JAN 0230	31	7.	*	1 JAN 1255	156	8732.	*	1 JAN 2320	281	24.	*	2 JAN 0945	406	0.			
1 JAN 0235	32	8.	*	1 JAN 1300	157	8450.	*	1 JAN 2325	282	24.	*	2 JAN 0950	407	0.			
1 JAN 0240	33	8.	*	1 JAN 1305	158	7947.	*	1 JAN 2330	283	24.	*	2 JAN 0955	408	0.			
1 JAN 0245	34	9.	*	1 JAN 1310	159	7320.	*	1 JAN 2335	284	24.	*	2 JAN 1000	409	0.			
1 JAN 0250	35	9.	*	1 JAN 1315	160	6665.	*	1 JAN 2340	285	24.	*	2 JAN 1005	410	0.			
1 JAN 0255	36	10.	*	1 JAN 1320	161	6092.	*	1 JAN 2345	286	24.	*	2 JAN 1010	411	0.			
1 JAN 0300	37	10.	*	1 JAN 1325	162	5489.	*	1 JAN 2350	287	24.	*	2 JAN 1015	412	0.			
1 JAN 0305	38	11.	*	1 JAN 1330	163	4893.	*	1 JAN 2355	288	23.	*	2 JAN 1020	413	0.			
1 JAN 0310	39	11.	*	1 JAN 1335	164	4382.	*	2 JAN 0000	289	23.	*	2 JAN 1025	414	0.			
1 JAN 0315	40	12.	*	1 JAN 1340	165	4006.	*	2 JAN 0005	290	23.	*	2 JAN 1030	415	0.			
1 JAN 0320	41	12.	*	1 JAN 1345	166	3637.	*	2 JAN 0010	291	23.	*	2 JAN 1035	416	0.			
1 JAN 0325	42	13.	*	1 JAN 1350	167	3270.	*	2 JAN 0015	292	22.	*	2 JAN 1040	417	0.			
1 JAN 0330	43	13.	*	1 JAN 1355	168	2939.	*	2 JAN 0020	293	22.	*	2 JAN 1045	418	0.			
1 JAN 0335	44	14.	*	1 JAN 1400	169	2658.	*	2 JAN 0025	294	21.	*	2 JAN 1050	419	0.			
1 JAN 0340	45	14.	*	1 JAN 1405	170	2451.	*	2 JAN 0030	295	21.	*	2 JAN 1055	420	0.			
1 JAN 0345	46	15.	*	1 JAN 1410	171	2213.	*	2 JAN 0035	296	21.	*	2 JAN 1100	421	0.			
1 JAN 0350	47	15.	*	1 JAN 1415	172	1899.	*	2 JAN 0040	297	21.	*	2 JAN 1105	422	0.			
1 JAN 0355	48	15.	*	1 JAN 1420	173	1453.	*	2 JAN 0045	298	21.	*	2 JAN 1110	423	0.			
1 JAN 0400	49	16.	*	1 JAN 1425	174	859.	*	2 JAN 0050	299	20.	*	2 JAN 1115	424	0.			
1 JAN 0405	50	16.	*	1 JAN 1430	175	678.	*	2 JAN 0055	300	20.	*	2 JAN 1120	425	0.			
1 JAN 0410	51	17.	*	1 JAN 1435	176	600.	*	2 JAN 0100	301	20.	*	2 JAN 1125	426	0.			
1 JAN 0415	52	17.	*	1 JAN 1440	177	544.	*	2 JAN 0105	302	20.	*	2 JAN 1130	427	0.			
1 JAN 0420	53	18.	*	1 JAN 1445	178	492.	*	2 JAN 0110	303	20.	*	2 JAN 1135	428	0.			
1 JAN 0425	54	18.	*	1 JAN 1450	179	448.	*	2 JAN 0115	304	19.	*	2 JAN 1140	429	0.			
1 JAN 0430	55	18.	*	1 JAN 1455	180	412.	*	2 JAN 0120	305	19.	*	2 JAN 1145	430	0.			
1 JAN 0435	56	19.	*	1 JAN 1500	181	378.	*	2 JAN 0125	306	19.	*	2 JAN 1150	431	0.			
1 JAN 0440	57	19.	*	1 JAN 1505	182	346.	*	2 JAN 0130	307	19.	*	2 JAN 1155	432	0.			
1 JAN 0445	58	19.	*	1 JAN 1510	183	318.	*	2 JAN 0135	308	18.	*	2 JAN 1200	433	0.			
1 JAN 0450	59	19.	*	1 JAN 1515	184	294.	*	2 JAN 0140	309	18.	*	2 JAN 1205	434	0.			
1 JAN 0455	60	20.	*	1 JAN 1520	185	275.	*	2 JAN 0145	310	18.	*	2 JAN 1210	435	0.			
1 JAN 0500	61	20.	*	1 JAN 1525	186	255.	*	2 JAN 0150	311	17.	*	2 JAN 1215	436	0.			
1 JAN 0505	62	20.	*	1 JAN 1530	187	236.	*	2 JAN 0155	312	17.	*	2 JAN 1220	437	0.			
1 JAN 0510	63	20.	*	1 JAN 1535	188	218.	*	2 JAN 0200	313	16.	*	2 JAN 1225	438	0.			
1 JAN 0515	64	21.	*	1 JAN 1540	189	202.	*	2 JAN 0205	314	16.	*	2 JAN 1230	439	0.			
1 JAN 0520	65	21.	*	1 JAN 1545	190	188.	*	2 JAN 0210	315	15.	*	2 JAN 1235	440	0.			
1 JAN 0525	66	21.	*	1 JAN 1550	191	178.	*	2 JAN 0215	316	15.	*	2 JAN 1240	441	0.			
1 JAN 0530	67	21.	*	1 JAN 1555	192	169.	*	2 JAN 0220	317	14.	*	2 JAN 1245	442	0.			
1 JAN 0535	68	22.	*	1 JAN 1600	193	160.	*	2 JAN 0225	318	14.	*	2 JAN 1250	443	0.			
1 JAN 0540	69	22.	*	1 JAN 1605	194	151.	*	2 JAN 0230	319	13.	*	2 JAN 1255	444	0.			
1 JAN 0545	70	22.	*	1 JAN 1610	195	143.	*	2 JAN 0235	320	13.	*	2 JAN 1300	445	0.			
1 JAN 0550	71	22.	*	1 JAN 1615	196	136.	*	2 JAN 0240	321	12.	*	2 JAN 1305	446	0.			
1 JAN 0555	72	23.	*	1 JAN 1620	197	128.	*	2 JAN 0245	322	12.	*	2 JAN 1310	447	0.			
1 JAN 0600	73	23.	*	1 JAN 1625	198	122.	*	2 JAN 0250	323	11.	*	2 JAN 1315	448	0.			
1 JAN 0605	74	23.	*	1 JAN 1630	199	116.	*	2 JAN 0255	324	11.	*	2 JAN 1320	449	0.			
1 JAN 0610	75	23.	*	1 JAN 1635	200	110.	*	2 JAN 0300	325	10.	*	2 JAN 1325	450	0.			
1 JAN 0615	76	24.	*	1 JAN 1640	201	105.	*	2 JAN 0305	326	9.	*	2 JAN 1330	451	0.			
1 JAN 0620	77	24.	*	1 JAN 1645	202	100.	*	2 JAN 0310	327	9.	*	2 JAN 1335	452	0.			
1 JAN 0625	78	25.	*	1 JAN 1650	203	96.	*	2 JAN 0315	328	9.	*	2 JAN 1340	453	0.			
1 JAN 0630	79	25.	*	1 JAN 1655	204	93.	*	2 JAN 0320	329	8.	*	2 JAN 1345	454	0.			
1 JAN 0635	80	25.	*	1 JAN 1700	205	90.	*	2 JAN 0325	330	8.	*	2 JAN 1350	455	0.			
1 JAN 0640	81	26.	*	1 JAN 1705	206	88.	*	2 JAN 0330	331	7.	*	2 JAN 1355	456	0.			
1 JAN 0645	82	26.	*	1 JAN 1710	207	86.	*	2 JAN 0335	332	7.	*	2 JAN 1400	457	0.			
1 JAN 0650	83	26.	*	1 JAN 1715	208	84.	*	2 JAN 0340	333	6.	*	2 JAN 1405	458	0.			
1 JAN 0655	84	27.	*	1 JAN 1720	209	82.	*	2 JAN 0345	334	6.	*	2 JAN 1410	459	0.			
1 JAN 0700	85	27.	*	1 JAN 1725	210	81.	*	2 JAN 0350	335	6.	*	2 JAN 1415	460	0.			
1 JAN 0705	86	27.	*	1 JAN 1730	211	79.	*	2 JAN 0355	336	5.	*	2 JAN 1420	461	0.			
1 JAN 0710	87	27.	*	1 JAN 1735	212	77.	*	2 JAN 0400	337	5.	*	2 JAN 1425	462	0.			
1 JAN 0715	88	28.	*	1 JAN 1740	213	76.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.			
1 JAN 0720	89	28.	*	1 JAN 1745	214	74.	*	2 JAN 0410	339	4.	*	2 JAN 1435	464	0.			
1 JAN 0725	90	28.	*	1 JAN 1750	215	73.	*	2 JAN 0415	340	4.	*	2 JAN 1440	465	0.			
1 JAN 0730	91	29.	*	1 JAN 1755	216	71.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.			
1 JAN 0735	92	29.	*	1 JAN 1800	217	69.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.			
1 JAN 0740	93	29.	*	1 JAN 1805	218	68.	*	2 JAN 0430	343	3.	*	2 JAN 1455	468	0.			
1 JAN 0745	94	30.	*	1 JAN 1810	219	66.	*	2 JAN 0435	344	3.	*	2 JAN 1500	469	0.			
1 JAN 0750	95	31.	*	1 JAN 1815	220	64.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.			
1 JAN 0755	96	31.	*	1 JAN 1820	221	63.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.			
1 JAN 0800	97	32.	*	1 JAN 1825	222	61.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.			
1 JAN 0805	98	32.	*	1 JAN 1830	223	60.	*	2 JAN 0455	348	2.	*	2 JAN 1520	473	0.			
1 JAN 0810	99	33.	*	1 JAN 1835	224	59.	*	2 JAN 0500	349	2.	*	2 JAN 1525	474	0.			
1 JAN 0815	100	33.	*	1 JAN 1840	225	58.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.			
1 JAN 0820	101	34.	*	1 JAN 1845	226	56.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.			
1 JAN 0825	102	34.	*	1 JAN 1850	227	55.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.			
1 JAN 0830	103	34.	*	1 JAN 1855	228	54.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.			
1 JAN 0835	104	35.	*	1 JAN 1900	229	53.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.			
1 JAN 0840	105	35.	*	1 JAN 1905	230	52.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.			
1 JAN 0845	106	35.	*	1 JAN 1910	231	50.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.			
1 JAN 0850	107	36.	*	1 JAN 1915	232	49.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.			
1 JAN 0855	108	36.	*	1 JAN 1920	233	48.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.			
1 JAN 0900	109	36.	*	1 JAN 1925	234	47.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.			
1 JAN 0905	110	37.	*	1 JAN 1930	235	45.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.			
1 JAN 0910	111	37.	*	1 JAN 1935	236	44.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.			
1 JAN 0915	112	38.	*	1 JAN 1940	237	43.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.			
1 JAN 0920	113	38.	*	1 JAN 1945	238	42.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.			
1 JAN 0925	114	39.	*	1 JAN 1950	239	41.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.			
1 JAN 0930	115	39.	*	1 JAN 1955	240	39.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.			
1 JAN 0935	116	40.	*	1 JAN 2000	241	38.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.			
1 JAN 0940	117	41.	*	1 JAN 2005	242	37.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.			
1 JAN 0945	118	42.	*	1 JAN 2010	243	37.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.			
1 JAN 0950	119	43.	*	1 JAN 2015	244	36.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.			
1 JAN 0955	120	43.	*	1 JAN 2020	245	35.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.			
1 JAN 1000	121	44.	*	1 JAN 2025	246	34.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.			
1 JAN 1005	122	45.	*	1 JAN 2030	247	34.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.			
1 JAN 1010	123	46.	*	1 JAN 2035	248	33.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.			
1 JAN 1015	124	47.	*	1 JAN 2040	249	33.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	48.	*	1 JAN 2045	250	32.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			
			*				*				*						

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
8732.	12.92	(CFS)	1991.	522.	302.	302.
		(INCHES)	1.525	1.598	1.601	1.601
		(AC-FT)	987.	1035.	1037.	1037.

CUMULATIVE AREA = 12.14 SQ MI

HYDROGRAPH AT C010L
TRANSPOSITION AREA 60.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	46.	1	JAN	2050	251	29.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	47.	1	JAN	2055	252	29.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	48.	1	JAN	2100	253	29.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	50.	1	JAN	2105	254	29.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	51.	1	JAN	2110	255	28.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	52.	1	JAN	2115	256	28.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	54.	1	JAN	2120	257	28.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	55.	1	JAN	2125	258	28.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	57.	1	JAN	2130	259	28.	2	JAN	0755	384	0.
1	JAN	0045	10	2.	1	JAN	1110	135	59.	1	JAN	2135	260	28.	2	JAN	0800	385	0.
1	JAN	0050	11	2.	1	JAN	1115	136	62.	1	JAN	2140	261	27.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	65.	1	JAN	2145	262	27.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	68.	1	JAN	2150	263	27.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	73.	1	JAN	2155	264	26.	2	JAN	0820	389	0.
1	JAN	0110	15	2.	1	JAN	1135	140	91.	1	JAN	2200	265	26.	2	JAN	0825	390	0.
1	JAN	0115	16	2.	1	JAN	1140	141	144.	1	JAN	2205	266	26.	2	JAN	0830	391	0.
1	JAN	0120	17	2.	1	JAN	1145	142	241.	1	JAN	2210	267	26.	2	JAN	0835	392	0.
1	JAN	0125	18	3.	1	JAN	1150	143	430.	1	JAN	2215	268	25.	2	JAN	0840	393	0.
1	JAN	0130	19	3.	1	JAN	1155	144	717.	1	JAN	2220	269	25.	2	JAN	0845	394	0.
1	JAN	0135	20	3.	1	JAN	1200	145	1207.	1	JAN	2225	270	25.	2	JAN	0850	395	0.
1	JAN	0140	21	3.	1	JAN	1205	146	1951.	1	JAN	2230	271	25.	2	JAN	0855	396	0.
1	JAN	0145	22	3.	1	JAN	1210	147	2526.	1	JAN	2235	272	25.	2	JAN	0900	397	0.
1	JAN	0150	23	4.	1	JAN	1215	148	2681.	1	JAN	2240	273	24.	2	JAN	0905	398	0.
1	JAN	0155	24	4.	1	JAN	1220	149	2660.	1	JAN	2245	274	24.	2	JAN	0910	399	0.
1	JAN	0200	25	4.	1	JAN	1225	150	2838.	1	JAN	2250	275	24.	2	JAN	0915	400	0.
1	JAN	0205	26	5.	1	JAN	1230	151	3467.	1	JAN	2255	276	24.	2	JAN	0920	401	0.
1	JAN	0210	27	5.	1	JAN	1235	152	4707.	1	JAN	2300	277	24.	2	JAN	0925	402	0.
1	JAN	0215	28	5.	1	JAN	1240	153	6329.	1	JAN	2305	278	24.	2	JAN	0930	403	0.
1	JAN	0220	29	6.	1	JAN	1245	154	7509.	1	JAN	2310	279	23.	2	JAN	0935	404	0.
1	JAN	0225	30	6.	1	JAN	1250	155	8083.	1	JAN	2315	280	23.	2	JAN	0940	405	0.
1	JAN	0230	31	7.	1	JAN	1255	156	8157.	1	JAN	2320	281	23.	2	JAN	0945	406	0.
1	JAN	0235	32	7.	1	JAN	1300	157	7911.	1	JAN	2325	282	23.	2	JAN	0950	407	0.
1	JAN	0240	33	8.	1	JAN	1305	158	7454.	1	JAN	2330	283	23.	2	JAN	0955	408	0.
1	JAN	0245	34	8.	1	JAN	1310	159	6893.	1	JAN	2335	284	23.	2	JAN	1000	409	0.
1	JAN	0250	35	9.	1	JAN	1315	160	6338.	1	JAN	2340	285	23.	2	JAN	1005	410	0.
1	JAN	0255	36	9.	1	JAN	1320	161	5786.	1	JAN	2345	286	23.	2	JAN	1010	411	0.
1	JAN	0300	37	10.	1	JAN	1325	162	5203.	1	JAN	2350	287	22.	2	JAN	1015	412	0.
1	JAN	0305	38	10.	1	JAN	1330	163	4654.	1	JAN	2355	288	22.	2	JAN	1020	413	0.
1	JAN	0310	39	11.	1	JAN	1335	164	4206.	2	JAN	0000	289	22.	2	JAN	1025	414	0.
1	JAN	0315	40	11.	1	JAN	1340	165	3845.	2	JAN	0005	290	22.	2	JAN	1030	415	0.
1	JAN	0320	41	12.	1	JAN	1345	166	3476.	2	JAN	0010	291	22.	2	JAN	1035	416	0.
1	JAN	0325	42	12.	1	JAN	1350	167	3123.	2	JAN	0015	292	21.	2	JAN	1040	417	0.
1	JAN	0330	43	13.	1	JAN	1355	168	2816.	2	JAN	0020	293	21.	2	JAN	1045	418	0.
1	JAN	0335	44	13.	1	JAN	1400	169	2569.	2	JAN	0025	294	20.	2	JAN	1050	419	0.
1	JAN	0340	45	13.	1	JAN	1405	170	2361.	2	JAN	0030	295	20.	2	JAN	1055	420	0.
1	JAN	0345	46	14.	1	JAN	1410	171	2096.	2	JAN	0035	296	20.	2	JAN	1100	421	0.
1	JAN	0350	47	14.	1	JAN	1415	172	1740.	2	JAN	0040	297	20.	2	JAN	1105	422	0.
1	JAN	0355	48	15.	1	JAN	1420	173	1188.	2	JAN	0045	298	20.	2	JAN	1110	423	0.
1	JAN	0400	49	15.	1	JAN	1425	174	738.	2	JAN	0050	299	19.	2	JAN	1115	424	0.
1	JAN	0405	50	16.	1	JAN	1430	175	633.	2	JAN	0055	300	19.	2	JAN	1120	425	0.
1	JAN	0410	51	16.	1	JAN	1435	176	568.	2	JAN	0100	301	19.	2	JAN	1125	426	0.
1	JAN	0415	52	16.	1	JAN	1440	177	513.	2	JAN	0105	302	19.	2	JAN	1130	427	0.
1	JAN	0420	53	17.	1	JAN	1445	178	464.	2	JAN	0110	303	19.	2	JAN	1135	428	0.
1	JAN	0425	54	17.	1	JAN	1450	179	424.	2	JAN	0115	304	19.	2	JAN	1140	429	0.
1	JAN	0430	55	17.	1	JAN	1455	180	388.	2	JAN	0120	305	18.	2	JAN	1145	430	0.
1	JAN	0435	56	18.	1	JAN	1500	181	354.	2	JAN	0125	306	18.	2	JAN	1150	431	0.
1	JAN	0440	57	18.	1	JAN	1505	182	324.	2	JAN	0130	307	18.	2	JAN	1155	432	0.
1	JAN	0445	58	18.	1	JAN	1510	183	298.	2	JAN	0135	308	18.	2	JAN	1200	433	0.
1	JAN	0450	59	19.	1	JAN	1515	184	278.	2	JAN	0140	309	17.	2	JAN	1205	434	0.
1	JAN	0455	60	19.	1	JAN	1520	185	257.	2	JAN	0145	310	17.	2	JAN	1210	435	0.
1	JAN	0500	61	19.	1	JAN	1525	186	237.	2	JAN	0150	311	17.	2	JAN	1215	436	0.
1	JAN	0505	62	19.	1	JAN	1530	187	218.	2	JAN	0155	312	16.	2	JAN	1220	437	0.
1	JAN	0510	63	19.	1	JAN	1535	188	202.	2	JAN	0200	313	16.	2	JAN	1225	438	0.
1	JAN	0515	64	20.	1	JAN	1540	189	187.	2	JAN	0205	314	15.	2	JAN	1230	439	0.
1	JAN	0520	65	20.	1	JAN	1545	190	176.	2	JAN	0210	315	15.	2	JAN	1235	440	0.
1	JAN	0525	66	20.	1	JAN	1550	191	167.	2	JAN	0215	316	14.	2	JAN	1240	441	0.
1	JAN	0530	67	20.	1	JAN	1555	192	158.	2	JAN	0220	317	14.	2	JAN	1245	442	0.
1	JAN	0535	68	21.	1	JAN	1600	193	148.	2	JAN	0225	318	13.	2	JAN	1250	443	0.
1	JAN	0540	69	21.	1	JAN	1605	194	140.	2	JAN	0230	319	13.	2	JAN	1255	444	0.
1	JAN	0545	70	21.	1	JAN	1610	195	132.	2	JAN	0235	320	12.	2	JAN	1300	445	0.
1	JAN	0550	71	21.	1	JAN	1615	196	124.	2	JAN	0240	321	12.	2	JAN	1305	446	0.
1	JAN	0555	72	22.	1	JAN	1620	197	117.	2	JAN	0245	322	11.	2	JAN	1310	447	0.
1	JAN	0600	73	22.	1	JAN	1625	198	111.	2	JAN	0250	323	11.	2	JAN	1315	448	0.
1	JAN	0605	74	22.	1	JAN	1630	199	105.	2	JAN	0255	324	10.	2	JAN	1320	449	0.
1	JAN	0610	75	22.	1	JAN	1635	200	100.	2	JAN	0300	325	10.	2	JAN	1325	450	0.
1	JAN	0615	76	23.	1	JAN	1640	201	95.	2	JAN	0305	326	9.	2	JAN	1330	451	0.
1	JAN	0620	77	23.	1	JAN	1645	202	92.	2	JAN	0310	327	9.	2	JAN	1335	452	0.
1	JAN	0625	78	23.	1	JAN	1650	203	89.	2	JAN	0315	328	8.	2	JAN	1340	453	0.
1	JAN	0630	79	24.	1	JAN	1655	204	87.	2	JAN	0320	329	8.	2	JAN	1345	454	0.
1	JAN	0635	80	24.	1	JAN	1700	205	84.	2	JAN	0325	330	7.	2	JAN	1350	455	0.
1	JAN	0640	81	24.	1	JAN	1705	206	82.	2	JAN	0330	331	7.	2	JAN	1355	456	0.
1	JAN	0645	82	25.	1	JAN	1710	207	80.	2	JAN	0335	332	6.	2	JAN	1400	457	0.
1	JAN	0650	83	25.	1	JAN	1715	208	78.	2	JAN	0340	333	6.	2	JAN	1405	458	0.
1	JAN	0655	84	25.	1	JAN	1720	209	76.	2	JAN	0345	334	6.	2	JAN	1410	459	0.

1 JAN 0700	85	25.	*	1 JAN 1725	210	74.	*	2 JAN 0350	335	5.	*	2 JAN 1415	460	0.
1 JAN 0705	86	26.	*	1 JAN 1730	211	72.	*	2 JAN 0355	336	5.	*	2 JAN 1420	461	0.
1 JAN 0710	87	26.	*	1 JAN 1735	212	71.	*	2 JAN 0400	337	5.	*	2 JAN 1425	462	0.
1 JAN 0715	88	26.	*	1 JAN 1740	213	69.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.
1 JAN 0720	89	26.	*	1 JAN 1745	214	67.	*	2 JAN 0410	339	4.	*	2 JAN 1435	464	0.
1 JAN 0725	90	27.	*	1 JAN 1750	215	66.	*	2 JAN 0415	340	4.	*	2 JAN 1440	465	0.
1 JAN 0730	91	27.	*	1 JAN 1755	216	64.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.
1 JAN 0735	92	27.	*	1 JAN 1800	217	63.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.
1 JAN 0740	93	28.	*	1 JAN 1805	218	61.	*	2 JAN 0430	343	3.	*	2 JAN 1455	468	0.
1 JAN 0745	94	28.	*	1 JAN 1810	219	59.	*	2 JAN 0435	344	3.	*	2 JAN 1500	469	0.
1 JAN 0750	95	28.	*	1 JAN 1815	220	58.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.
1 JAN 0755	96	29.	*	1 JAN 1820	221	57.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.
1 JAN 0800	97	29.	*	1 JAN 1825	222	55.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.
1 JAN 0805	98	30.	*	1 JAN 1830	223	54.	*	2 JAN 0455	348	2.	*	2 JAN 1520	473	0.
1 JAN 0810	99	30.	*	1 JAN 1835	224	53.	*	2 JAN 0500	349	2.	*	2 JAN 1525	474	0.
1 JAN 0815	100	31.	*	1 JAN 1840	225	52.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.
1 JAN 0820	101	32.	*	1 JAN 1845	226	50.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.
1 JAN 0825	102	32.	*	1 JAN 1850	227	49.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.
1 JAN 0830	103	33.	*	1 JAN 1855	228	48.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.
1 JAN 0835	104	33.	*	1 JAN 1900	229	47.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.
1 JAN 0840	105	33.	*	1 JAN 1905	230	46.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.
1 JAN 0845	106	34.	*	1 JAN 1910	231	45.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	34.	*	1 JAN 1915	232	44.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	34.	*	1 JAN 1920	233	43.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.
1 JAN 0900	109	35.	*	1 JAN 1925	234	42.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.
1 JAN 0905	110	35.	*	1 JAN 1930	235	41.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.
1 JAN 0910	111	35.	*	1 JAN 1935	236	40.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.
1 JAN 0915	112	36.	*	1 JAN 1940	237	39.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.
1 JAN 0920	113	36.	*	1 JAN 1945	238	38.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.
1 JAN 0925	114	37.	*	1 JAN 1950	239	37.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.
1 JAN 0930	115	38.	*	1 JAN 1955	240	36.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.
1 JAN 0935	116	38.	*	1 JAN 2000	241	35.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.
1 JAN 0940	117	39.	*	1 JAN 2005	242	34.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.
1 JAN 0945	118	40.	*	1 JAN 2010	243	34.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.
1 JAN 0950	119	41.	*	1 JAN 2015	244	33.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.
1 JAN 0955	120	41.	*	1 JAN 2020	245	32.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.
1 JAN 1000	121	42.	*	1 JAN 2025	246	32.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.
1 JAN 1005	122	43.	*	1 JAN 2030	247	31.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	44.	*	1 JAN 2035	248	31.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	45.	*	1 JAN 2040	249	30.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	45.	*	1 JAN 2045	250	30.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8157.	12.92		1859.	487.	282.	282.
		(INCHES)	1.424	1.492	1.495	1.495
		(AC-FT)	922.	966.	968.	968.

CUMULATIVE AREA = 12.14 SQ MI

HYDROGRAPH AT C010L
TRANSPOSITION AREA 90.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	46.	*	1 JAN 2050	251	29.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	47.	*	1 JAN 2055	252	29.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	48.	*	1 JAN 2100	253	29.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	49.	*	1 JAN 2105	254	28.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	50.	*	1 JAN 2110	255	28.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	51.	*	1 JAN 2115	256	28.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	53.	*	1 JAN 2120	257	28.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	54.	*	1 JAN 2125	258	28.	*	2 JAN 0750	383	0.
1 JAN 0040	9	1.	*	1 JAN 1105	134	56.	*	1 JAN 2130	259	27.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	58.	*	1 JAN 2135	260	27.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	60.	*	1 JAN 2140	261	27.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	63.	*	1 JAN 2145	262	27.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	66.	*	1 JAN 2150	263	26.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	71.	*	1 JAN 2155	264	26.	*	2 JAN 0820	389	0.
1 JAN 0110	15	2.	*	1 JAN 1135	140	88.	*	1 JAN 2200	265	26.	*	2 JAN 0825	390	0.
1 JAN 0115	16	2.	*	1 JAN 1140	141	139.	*	1 JAN 2205	266	26.	*	2 JAN 0830	391	0.
1 JAN 0120	17	2.	*	1 JAN 1145	142	231.	*	1 JAN 2210	267	25.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	411.	*	1 JAN 2215	268	25.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	687.	*	1 JAN 2220	269	25.	*	2 JAN 0845	394	0.
1 JAN 0135	20	3.	*	1 JAN 1200	145	1160.	*	1 JAN 2225	270	25.	*	2 JAN 0850	395	0.
1 JAN 0140	21	3.	*	1 JAN 1205	146	1885.	*	1 JAN 2230	271	25.	*	2 JAN 0855	396	0.
1 JAN 0145	22	3.	*	1 JAN 1210	147	2467.	*	1 JAN 2235	272	24.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	2642.	*	1 JAN 2240	273	24.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	2619.	*	1 JAN 2245	274	24.	*	2 JAN 0910	399	0.
1 JAN 0200	25	4.	*	1 JAN 1225	150	2771.	*	1 JAN 2250	275	24.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	3326.	*	1 JAN 2255	276	24.	*	2 JAN 0920	401	0.
1 JAN 0210	27	5.	*	1 JAN 1235	152	4525.	*	1 JAN 2300	277	23.	*	2 JAN 0925	402	0.
1 JAN 0215	28	5.	*	1 JAN 1240	153	6074.	*	1 JAN 2305	278	23.	*	2 JAN 0930	403	0.
1 JAN 0220	29	6.	*	1 JAN 1245	154	7238.	*	1 JAN 2310	279	23.	*	2 JAN 0935	404	0.
1 JAN 0225	30	6.	*	1 JAN 1250	155	7856.	*	1 JAN 2315	280	23.	*	2 JAN 0940	405	0.
1 JAN 0230	31	7.	*	1 JAN 1255	156	7951.	*	1 JAN 2320	281	23.	*	2 JAN 0945	406	0.
1 JAN 0235	32	7.	*	1 JAN 1300	157	7720.	*	1 JAN 2325	282	23.	*	2 JAN 0950	407	0.
1 JAN 0240	33	8.	*	1 JAN 1305	158	7283.	*	1 JAN 2330	283	23.	*	2 JAN 0955	408	0.
1 JAN 0245	34	8.	*	1 JAN 1310	159	6750.	*	1 JAN 2335	284	22.	*	2 JAN 1000	409	0.
1 JAN 0250	35	9.	*	1 JAN 1315	160	6228.	*	1 JAN 2340	285	22.	*	2 JAN 1005	410	0.
1 JAN 0255	36	9.	*	1 JAN 1320	161	5673.	*	1 JAN 2345	286	22.	*	2 JAN 1010	411	0.
1 JAN 0300	37	10.	*	1 JAN 1325	162	5099.	*	1 JAN 2350	287	22.	*	2 JAN 1015	412	0.
1 JAN 0305	38	10.	*	1 JAN 1330	163	4571.	*	1 JAN 2355	288	22.	*	2 JAN 1020	413	0.
1 JAN 0310	39	11.	*	1 JAN 1335	164	4149.	*	2 JAN 0000	289	22.	*	2 JAN 1025	414	0.
1 JAN 0315	40	11.	*	1 JAN 1340	165	3787.	*	2 JAN 0005	290	21.	*	2 JAN 1030	415	0.
1 JAN 0320	41	12.	*	1 JAN 1345	166	3420.	*	2 JAN 0010	291	21.	*	2 JAN 1035	416	0.
1 JAN 0325	42	12.	*	1 JAN 1350	167	3072.	*	2 JAN 0015	292	21.	*	2 JAN 1040	417	0.

1 JAN 0330	43	12.	*	1 JAN 1355	168	2774.	*	2 JAN 0020	293	20.	*	2 JAN 1045	418	0.
1 JAN 0335	44	13.	*	1 JAN 1400	169	2540.	*	2 JAN 0025	294	20.	*	2 JAN 1050	419	0.
1 JAN 0340	45	13.	*	1 JAN 1405	170	2326.	*	2 JAN 0030	295	20.	*	2 JAN 1055	420	0.
1 JAN 0345	46	14.	*	1 JAN 1410	171	2050.	*	2 JAN 0035	296	20.	*	2 JAN 1100	421	0.
1 JAN 0350	47	14.	*	1 JAN 1415	172	1676.	*	2 JAN 0040	297	19.	*	2 JAN 1105	422	0.
1 JAN 0355	48	14.	*	1 JAN 1420	173	1079.	*	2 JAN 0045	298	19.	*	2 JAN 1110	423	0.
1 JAN 0400	49	15.	*	1 JAN 1425	174	718.	*	2 JAN 0050	299	19.	*	2 JAN 1115	424	0.
1 JAN 0405	50	15.	*	1 JAN 1430	175	619.	*	2 JAN 0055	300	19.	*	2 JAN 1120	425	0.
1 JAN 0410	51	16.	*	1 JAN 1435	176	557.	*	2 JAN 0100	301	19.	*	2 JAN 1125	426	0.
1 JAN 0415	52	16.	*	1 JAN 1440	177	502.	*	2 JAN 0105	302	19.	*	2 JAN 1130	427	0.
1 JAN 0420	53	17.	*	1 JAN 1445	178	454.	*	2 JAN 0110	303	18.	*	2 JAN 1135	428	0.
1 JAN 0425	54	17.	*	1 JAN 1450	179	415.	*	2 JAN 0115	304	18.	*	2 JAN 1140	429	0.
1 JAN 0430	55	17.	*	1 JAN 1455	180	379.	*	2 JAN 0120	305	18.	*	2 JAN 1145	430	0.
1 JAN 0435	56	17.	*	1 JAN 1500	181	346.	*	2 JAN 0125	306	18.	*	2 JAN 1150	431	0.
1 JAN 0440	57	18.	*	1 JAN 1505	182	316.	*	2 JAN 0130	307	18.	*	2 JAN 1155	432	0.
1 JAN 0445	58	18.	*	1 JAN 1510	183	292.	*	2 JAN 0135	308	17.	*	2 JAN 1200	433	0.
1 JAN 0450	59	18.	*	1 JAN 1515	184	271.	*	2 JAN 0140	309	17.	*	2 JAN 1205	434	0.
1 JAN 0455	60	18.	*	1 JAN 1520	185	251.	*	2 JAN 0145	310	17.	*	2 JAN 1210	435	0.
1 JAN 0500	61	19.	*	1 JAN 1525	186	231.	*	2 JAN 0150	311	16.	*	2 JAN 1215	436	0.
1 JAN 0505	62	19.	*	1 JAN 1530	187	212.	*	2 JAN 0155	312	16.	*	2 JAN 1220	437	0.
1 JAN 0510	63	19.	*	1 JAN 1535	188	196.	*	2 JAN 0200	313	15.	*	2 JAN 1225	438	0.
1 JAN 0515	64	19.	*	1 JAN 1540	189	183.	*	2 JAN 0205	314	15.	*	2 JAN 1230	439	0.
1 JAN 0520	65	20.	*	1 JAN 1545	190	173.	*	2 JAN 0210	315	15.	*	2 JAN 1235	440	0.
1 JAN 0525	66	20.	*	1 JAN 1550	191	163.	*	2 JAN 0215	316	14.	*	2 JAN 1240	441	0.
1 JAN 0530	67	20.	*	1 JAN 1555	192	153.	*	2 JAN 0220	317	14.	*	2 JAN 1245	442	0.
1 JAN 0535	68	20.	*	1 JAN 1600	193	144.	*	2 JAN 0225	318	13.	*	2 JAN 1250	443	0.
1 JAN 0540	69	20.	*	1 JAN 1605	194	136.	*	2 JAN 0230	319	12.	*	2 JAN 1255	444	0.
1 JAN 0545	70	21.	*	1 JAN 1610	195	128.	*	2 JAN 0235	320	12.	*	2 JAN 1300	445	0.
1 JAN 0550	71	21.	*	1 JAN 1615	196	120.	*	2 JAN 0240	321	11.	*	2 JAN 1305	446	0.
1 JAN 0555	72	21.	*	1 JAN 1620	197	113.	*	2 JAN 0245	322	11.	*	2 JAN 1310	447	0.
1 JAN 0600	73	21.	*	1 JAN 1625	198	107.	*	2 JAN 0250	323	10.	*	2 JAN 1315	448	0.
1 JAN 0605	74	22.	*	1 JAN 1630	199	102.	*	2 JAN 0255	324	10.	*	2 JAN 1320	449	0.
1 JAN 0610	75	22.	*	1 JAN 1635	200	97.	*	2 JAN 0300	325	9.	*	2 JAN 1325	450	0.
1 JAN 0615	76	22.	*	1 JAN 1640	201	93.	*	2 JAN 0305	326	9.	*	2 JAN 1330	451	0.
1 JAN 0620	77	23.	*	1 JAN 1645	202	90.	*	2 JAN 0310	327	8.	*	2 JAN 1335	452	0.
1 JAN 0625	78	23.	*	1 JAN 1650	203	87.	*	2 JAN 0315	328	8.	*	2 JAN 1340	453	0.
1 JAN 0630	79	23.	*	1 JAN 1655	204	85.	*	2 JAN 0320	329	8.	*	2 JAN 1345	454	0.
1 JAN 0635	80	24.	*	1 JAN 1700	205	82.	*	2 JAN 0325	330	7.	*	2 JAN 1350	455	0.
1 JAN 0640	81	24.	*	1 JAN 1705	206	80.	*	2 JAN 0330	331	7.	*	2 JAN 1355	456	0.
1 JAN 0645	82	24.	*	1 JAN 1710	207	77.	*	2 JAN 0335	332	6.	*	2 JAN 1400	457	0.
1 JAN 0650	83	24.	*	1 JAN 1715	208	75.	*	2 JAN 0340	333	6.	*	2 JAN 1405	458	0.
1 JAN 0655	84	25.	*	1 JAN 1720	209	73.	*	2 JAN 0345	334	6.	*	2 JAN 1410	459	0.
1 JAN 0700	85	25.	*	1 JAN 1725	210	71.	*	2 JAN 0350	335	5.	*	2 JAN 1415	460	0.
1 JAN 0705	86	25.	*	1 JAN 1730	211	70.	*	2 JAN 0355	336	5.	*	2 JAN 1420	461	0.
1 JAN 0710	87	25.	*	1 JAN 1735	212	68.	*	2 JAN 0400	337	5.	*	2 JAN 1425	462	0.
1 JAN 0715	88	26.	*	1 JAN 1740	213	66.	*	2 JAN 0405	338	4.	*	2 JAN 1430	463	0.
1 JAN 0720	89	26.	*	1 JAN 1745	214	65.	*	2 JAN 0410	339	4.	*	2 JAN 1435	464	0.
1 JAN 0725	90	26.	*	1 JAN 1750	215	63.	*	2 JAN 0415	340	4.	*	2 JAN 1440	465	0.
1 JAN 0730	91	26.	*	1 JAN 1755	216	62.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.
1 JAN 0735	92	27.	*	1 JAN 1800	217	60.	*	2 JAN 0425	342	3.	*	2 JAN 1450	467	0.
1 JAN 0740	93	27.	*	1 JAN 1805	218	59.	*	2 JAN 0430	343	3.	*	2 JAN 1455	468	0.
1 JAN 0745	94	27.	*	1 JAN 1810	219	57.	*	2 JAN 0435	344	3.	*	2 JAN 1500	469	0.
1 JAN 0750	95	28.	*	1 JAN 1815	220	56.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.
1 JAN 0755	96	28.	*	1 JAN 1820	221	54.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.
1 JAN 0800	97	28.	*	1 JAN 1825	222	53.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.
1 JAN 0805	98	29.	*	1 JAN 1830	223	52.	*	2 JAN 0455	348	2.	*	2 JAN 1520	473	0.
1 JAN 0810	99	29.	*	1 JAN 1835	224	51.	*	2 JAN 0500	349	2.	*	2 JAN 1525	474	0.
1 JAN 0815	100	30.	*	1 JAN 1840	225	49.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.
1 JAN 0820	101	30.	*	1 JAN 1845	226	48.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.
1 JAN 0825	102	31.	*	1 JAN 1850	227	47.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.
1 JAN 0830	103	32.	*	1 JAN 1855	228	46.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.
1 JAN 0835	104	32.	*	1 JAN 1900	229	45.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.
1 JAN 0840	105	33.	*	1 JAN 1905	230	44.	*	2 JAN 0530	355	1.	*	2 JAN 1555	480	0.
1 JAN 0845	106	33.	*	1 JAN 1910	231	43.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	33.	*	1 JAN 1915	232	42.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	34.	*	1 JAN 1920	233	41.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.
1 JAN 0900	109	34.	*	1 JAN 1925	234	40.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.
1 JAN 0905	110	34.	*	1 JAN 1930	235	39.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.
1 JAN 0910	111	35.	*	1 JAN 1935	236	38.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.
1 JAN 0915	112	35.	*	1 JAN 1940	237	37.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.
1 JAN 0920	113	36.	*	1 JAN 1945	238	37.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.
1 JAN 0925	114	36.	*	1 JAN 1950	239	36.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.
1 JAN 0930	115	37.	*	1 JAN 1955	240	35.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.
1 JAN 0935	116	38.	*	1 JAN 2000	241	34.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.
1 JAN 0940	117	38.	*	1 JAN 2005	242	33.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.
1 JAN 0945	118	39.	*	1 JAN 2010	243	33.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.
1 JAN 0950	119	40.	*	1 JAN 2015	244	32.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.
1 JAN 0955	120	41.	*	1 JAN 2020	245	32.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.
1 JAN 1000	121	41.	*	1 JAN 2025	246	31.	*	2 JAN 0650	371	0.	*	2 JAN 1715	496	0.
1 JAN 1005	122	42.	*	1 JAN 2030	247	30.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.
1 JAN 1010	123	43.	*	1 JAN 2035	248	30.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	44.	*	1 JAN 2040	249	30.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	45.	*	1 JAN 2045	250	29.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)	(CFS)				
+ 7951.	12.92		1813.	475.	275.	275.
		(INCHES)	1.388	1.455	1.458	1.458
		(AC-FT)	899.	942.	944.	944.

CUMULATIVE AREA = 12.14 SQ MI

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INTERPOLATED HYDROGRAPH AT C010L

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DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	50.	1 JAN 2050	251	36.	2 JAN 0715	376	0.

1 JAN 0005	2	0.	*	1 JAN 1030	127	51.	*	1 JAN 2055	252	35.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	53.	*	1 JAN 2100	253	35.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	54.	*	1 JAN 2105	254	34.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	56.	*	1 JAN 2110	255	34.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	57.	*	1 JAN 2115	256	33.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	59.	*	1 JAN 2120	257	32.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	61.	*	1 JAN 2125	258	32.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	64.	*	1 JAN 2130	259	31.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	67.	*	1 JAN 2135	260	31.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	70.	*	1 JAN 2140	261	30.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	75.	*	1 JAN 2145	262	30.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	81.	*	1 JAN 2150	263	29.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	89.	*	1 JAN 2155	264	29.	*	2 JAN 0820	389	0.
1 JAN 0110	15	2.	*	1 JAN 1135	140	115.	*	1 JAN 2200	265	29.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	187.	*	1 JAN 2205	266	28.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	308.	*	1 JAN 2210	267	28.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	533.	*	1 JAN 2215	268	28.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	881.	*	1 JAN 2220	269	28.	*	2 JAN 0845	394	0.
1 JAN 0135	20	3.	*	1 JAN 1200	145	1460.	*	1 JAN 2225	270	28.	*	2 JAN 0850	395	0.
1 JAN 0140	21	3.	*	1 JAN 1205	146	2269.	*	1 JAN 2230	271	27.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	2782.	*	1 JAN 2235	272	27.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	2887.	*	1 JAN 2240	273	27.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	2876.	*	1 JAN 2245	274	27.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	3190.	*	1 JAN 2250	275	26.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	4231.	*	1 JAN 2255	276	26.	*	2 JAN 0920	401	0.
1 JAN 0210	27	5.	*	1 JAN 1235	152	5910.	*	1 JAN 2300	277	26.	*	2 JAN 0925	402	0.
1 JAN 0215	28	6.	*	1 JAN 1240	153	7620.	*	1 JAN 2305	278	26.	*	2 JAN 0930	403	0.
1 JAN 0220	29	6.	*	1 JAN 1245	154	8757.	*	1 JAN 2310	279	26.	*	2 JAN 0935	404	0.
1 JAN 0225	30	7.	*	1 JAN 1250	155	9203.	*	1 JAN 2315	280	25.	*	2 JAN 0940	405	0.
1 JAN 0230	31	7.	*	1 JAN 1255	156	9203.	*	1 JAN 2320	281	25.	*	2 JAN 0945	406	0.
1 JAN 0235	32	8.	*	1 JAN 1300	157	8889.	*	1 JAN 2325	282	25.	*	2 JAN 0950	407	0.
1 JAN 0240	33	8.	*	1 JAN 1305	158	8354.	*	1 JAN 2330	283	25.	*	2 JAN 0955	408	0.
1 JAN 0245	34	9.	*	1 JAN 1310	159	7683.	*	1 JAN 2335	284	25.	*	2 JAN 1000	409	0.
1 JAN 0250	35	10.	*	1 JAN 1315	160	6968.	*	1 JAN 2340	285	25.	*	2 JAN 1005	410	0.
1 JAN 0255	36	10.	*	1 JAN 1320	161	6326.	*	1 JAN 2345	286	25.	*	2 JAN 1010	411	0.
1 JAN 0300	37	11.	*	1 JAN 1325	162	5728.	*	1 JAN 2350	287	24.	*	2 JAN 1015	412	0.
1 JAN 0305	38	11.	*	1 JAN 1330	163	5110.	*	1 JAN 2355	288	24.	*	2 JAN 1020	413	0.
1 JAN 0310	39	12.	*	1 JAN 1335	164	4557.	*	2 JAN 0000	289	24.	*	2 JAN 1025	414	0.
1 JAN 0315	40	12.	*	1 JAN 1340	165	4124.	*	2 JAN 0005	290	24.	*	2 JAN 1030	415	0.
1 JAN 0320	41	13.	*	1 JAN 1345	166	3758.	*	2 JAN 0010	291	23.	*	2 JAN 1035	416	0.
1 JAN 0325	42	13.	*	1 JAN 1350	167	3385.	*	2 JAN 0015	292	23.	*	2 JAN 1040	417	0.
1 JAN 0330	43	14.	*	1 JAN 1355	168	3037.	*	2 JAN 0020	293	23.	*	2 JAN 1045	418	0.
1 JAN 0335	44	14.	*	1 JAN 1400	169	2741.	*	2 JAN 0025	294	22.	*	2 JAN 1050	419	0.
1 JAN 0340	45	15.	*	1 JAN 1405	170	2515.	*	2 JAN 0030	295	22.	*	2 JAN 1055	420	0.
1 JAN 0345	46	15.	*	1 JAN 1410	171	2294.	*	2 JAN 0035	296	22.	*	2 JAN 1100	421	0.
1 JAN 0350	47	16.	*	1 JAN 1415	172	2009.	*	2 JAN 0040	297	22.	*	2 JAN 1105	422	0.
1 JAN 0355	48	16.	*	1 JAN 1420	173	1619.	*	2 JAN 0045	298	21.	*	2 JAN 1110	423	0.
1 JAN 0400	49	16.	*	1 JAN 1425	174	1031.	*	2 JAN 0050	299	21.	*	2 JAN 1115	424	0.
1 JAN 0405	50	17.	*	1 JAN 1430	175	720.	*	2 JAN 0055	300	21.	*	2 JAN 1120	425	0.
1 JAN 0410	51	17.	*	1 JAN 1435	176	628.	*	2 JAN 0100	301	21.	*	2 JAN 1125	426	0.
1 JAN 0415	52	18.	*	1 JAN 1440	177	568.	*	2 JAN 0105	302	21.	*	2 JAN 1130	427	0.
1 JAN 0420	53	18.	*	1 JAN 1445	178	516.	*	2 JAN 0110	303	20.	*	2 JAN 1135	428	0.
1 JAN 0425	54	19.	*	1 JAN 1450	179	469.	*	2 JAN 0115	304	20.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	431.	*	2 JAN 0120	305	20.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	398.	*	2 JAN 0125	306	20.	*	2 JAN 1150	431	0.
1 JAN 0440	57	20.	*	1 JAN 1505	182	365.	*	2 JAN 0130	307	19.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	335.	*	2 JAN 0135	308	19.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	309.	*	2 JAN 0140	309	19.	*	2 JAN 1205	434	0.
1 JAN 0455	60	20.	*	1 JAN 1520	185	288.	*	2 JAN 0145	310	18.	*	2 JAN 1210	435	0.
1 JAN 0500	61	21.	*	1 JAN 1525	186	269.	*	2 JAN 0150	311	18.	*	2 JAN 1215	436	0.
1 JAN 0505	62	21.	*	1 JAN 1530	187	250.	*	2 JAN 0155	312	18.	*	2 JAN 1220	437	0.
1 JAN 0510	63	21.	*	1 JAN 1535	188	232.	*	2 JAN 0200	313	17.	*	2 JAN 1225	438	0.
1 JAN 0515	64	21.	*	1 JAN 1540	189	215.	*	2 JAN 0205	314	17.	*	2 JAN 1230	439	0.
1 JAN 0520	65	22.	*	1 JAN 1545	190	200.	*	2 JAN 0210	315	16.	*	2 JAN 1235	440	0.
1 JAN 0525	66	22.	*	1 JAN 1550	191	188.	*	2 JAN 0215	316	16.	*	2 JAN 1240	441	0.
1 JAN 0530	67	22.	*	1 JAN 1555	192	177.	*	2 JAN 0220	317	15.	*	2 JAN 1245	442	0.
1 JAN 0535	68	22.	*	1 JAN 1600	193	169.	*	2 JAN 0225	318	14.	*	2 JAN 1250	443	0.
1 JAN 0540	69	23.	*	1 JAN 1605	194	161.	*	2 JAN 0230	319	14.	*	2 JAN 1255	444	0.
1 JAN 0545	70	23.	*	1 JAN 1610	195	153.	*	2 JAN 0235	320	13.	*	2 JAN 1300	445	0.
1 JAN 0550	71	23.	*	1 JAN 1615	196	145.	*	2 JAN 0240	321	13.	*	2 JAN 1305	446	0.
1 JAN 0555	72	24.	*	1 JAN 1620	197	138.	*	2 JAN 0245	322	12.	*	2 JAN 1310	447	0.
1 JAN 0600	73	24.	*	1 JAN 1625	198	131.	*	2 JAN 0250	323	11.	*	2 JAN 1315	448	0.
1 JAN 0605	74	24.	*	1 JAN 1630	199	124.	*	2 JAN 0255	324	11.	*	2 JAN 1320	449	0.
1 JAN 0610	75	25.	*	1 JAN 1635	200	118.	*	2 JAN 0300	325	10.	*	2 JAN 1325	450	0.
1 JAN 0615	76	25.	*	1 JAN 1640	201	113.	*	2 JAN 0305	326	10.	*	2 JAN 1330	451	0.
1 JAN 0620	77	25.	*	1 JAN 1645	202	108.	*	2 JAN 0310	327	9.	*	2 JAN 1335	452	0.
1 JAN 0625	78	26.	*	1 JAN 1650	203	104.	*	2 JAN 0315	328	9.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	100.	*	2 JAN 0320	329	8.	*	2 JAN 1345	454	0.
1 JAN 0635	80	27.	*	1 JAN 1700	205	96.	*	2 JAN 0325	330	8.	*	2 JAN 1350	455	0.
1 JAN 0640	81	27.	*	1 JAN 1705	206	93.	*	2 JAN 0330	331	7.	*	2 JAN 1355	456	0.
1 JAN 0645	82	27.	*	1 JAN 1710	207	91.	*	2 JAN 0335	332	7.	*	2 JAN 1400	457	0.
1 JAN 0650	83	28.	*	1 JAN 1715	208	89.	*	2 JAN 0340	333	7.	*	2 JAN 1405	458	0.
1 JAN 0655	84	28.	*	1 JAN 1720	209	88.	*	2 JAN 0345	334	6.	*	2 JAN 1410	459	0.
1 JAN 0700	85	28.	*	1 JAN 1725	210	86.	*	2 JAN 0350	335	6.	*	2 JAN 1415	460	0.
1 JAN 0705	86	28.	*	1 JAN 1730	211	84.	*	2 JAN 0355	336	6.	*	2 JAN 1420	461	0.
1 JAN 0710	87	29.	*	1 JAN 1735	212	83.	*	2 JAN 0400	337	5.	*	2 JAN 1425	462	0.
1 JAN 0715	88	29.	*	1 JAN 1740	213	81.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.
1 JAN 0720	89	29.	*	1 JAN 1745	214	79.	*	2 JAN 0410	339	5.	*	2 JAN 1435	464	0.
1 JAN 0725	90	30.	*	1 JAN 1750	215	78.	*	2 JAN 0415	340	4.	*	2 JAN 1440	465	0.
1 JAN 0730	91	30.	*	1 JAN 1755	216	76.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.
1 JAN 0735	92	31.	*	1 JAN 1800	217	74.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.
1 JAN 0740	93	32.	*	1 JAN 1805	218	73.	*	2 JAN 0430	343	4.	*	2 JAN 1455	468	0.
1 JAN 0745	94	32.	*	1 JAN 1810	219	71.	*	2 JAN 0435	344	3.	*	2 JAN 1500	469	0.
1 JAN 0750	95	33.	*	1 JAN 1815	220	69.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.
1 JAN 0755	96	33.	*	1 JAN 1820	221	68.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.
1 JAN 0800	97	33.	*	1 JAN 1825	222	66.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.
1 JAN 0805	98	34.	*	1 JAN 1830	223	65.	*	2 JAN 0455	348	3.	*	2 JAN 1520	473	0.
1 JAN 0810	99	34.	*	1 JAN 1835	224	64.	*	2 JAN 0500	349	2.	*	2 JAN 1525	474	0.
1 JAN 0815	100	34.	*	1 JAN 1840	225	62.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.
1 JAN 0820	101	35.	*	1 JAN 1845	226	61.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.
1 JAN 0825	102	35.	*	1 JAN 1850	227	60.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.
1 JAN 0830	103	36.	*	1 JAN 1855	228	59.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.
1 JAN 0835	104	36.	*	1 JAN 1900	229	57.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.
1 JAN 0840	105	36.	*	1 JAN 1905	230	56.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.
1 JAN 0845	106	37.	*	1 JAN 1910	231	55.	*	2 JAN 0535	356	1.	*	2 JAN 1600	481	0.
1 JAN 0850	107	37.	*	1 JAN 1915	232	54.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.

1 JAN 0855	108	37.	*	1 JAN 1920	233	52.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.					
1 JAN 0900	109	38.	*	1 JAN 1925	234	51.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.					
1 JAN 0905	110	38.	*	1 JAN 1930	235	49.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.					
1 JAN 0910	111	38.	*	1 JAN 1935	236	48.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.					
1 JAN 0915	112	39.	*	1 JAN 1940	237	47.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.					
1 JAN 0920	113	40.	*	1 JAN 1945	238	46.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.					
1 JAN 0925	114	40.	*	1 JAN 1950	239	45.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.					
1 JAN 0930	115	41.	*	1 JAN 1955	240	43.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.					
1 JAN 0935	116	42.	*	1 JAN 2000	241	42.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.					
1 JAN 0940	117	42.	*	1 JAN 2005	242	41.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.					
1 JAN 0945	118	43.	*	1 JAN 2010	243	40.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.					
1 JAN 0950	119	44.	*	1 JAN 2015	244	40.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.					
1 JAN 0955	120	45.	*	1 JAN 2020	245	39.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.					
1 JAN 1000	121	46.	*	1 JAN 2025	246	38.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.					
1 JAN 1005	122	47.	*	1 JAN 2030	247	38.	*	2 JAN 0655	372	0.	*	2 JAN 1720	497	0.					
1 JAN 1010	123	47.	*	1 JAN 2035	248	37.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.					
1 JAN 1015	124	48.	*	1 JAN 2040	249	37.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.					
1 JAN 1020	125	49.	*	1 JAN 2045	250	36.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.					

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 9203.	12.92	2101.	551.	318.	318.
		(INCHES) 1.609	1.687	1.690	1.690
		(AC-FT) 1042.	1092.	1094.	1094.

CUMULATIVE AREA = 12.14 SQ MI

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          **************
          *            *
302 KK    *      C010  *
          *            *
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303 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	500	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

305 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

***

HYDROGRAPH AT C010
TRANSPOSITION AREA .0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	57.	*	1 JAN 2050	251	46.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	59.	*	1 JAN 2055	252	46.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	62.	*	1 JAN 2100	253	45.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	66.	*	1 JAN 2105	254	44.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	71.	*	1 JAN 2110	255	43.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	79.	*	1 JAN 2115	256	42.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	89.	*	1 JAN 2120	257	41.	*	2 JAN 0745	382	0.
1 JAN 0035	8	2.	*	1 JAN 1100	133	100.	*	1 JAN 2125	258	39.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	113.	*	1 JAN 2130	259	38.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	128.	*	1 JAN 2135	260	37.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	145.	*	1 JAN 2140	261	36.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	166.	*	1 JAN 2145	262	35.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	192.	*	1 JAN 2150	263	34.	*	2 JAN 0815	388	0.
1 JAN 0105	14	3.	*	1 JAN 1130	139	228.	*	1 JAN 2155	264	33.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	295.	*	1 JAN 2200	265	33.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	440.	*	1 JAN 2205	266	32.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	678.	*	1 JAN 2210	267	31.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	1090.	*	1 JAN 2215	268	31.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	1718.	*	1 JAN 2220	269	30.	*	2 JAN 0845	394	0.
1 JAN 0135	20	4.	*	1 JAN 1200	145	2676.	*	1 JAN 2225	270	30.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	3852.	*	1 JAN 2230	271	30.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	4552.	*	1 JAN 2235	272	29.	*	2 JAN 0900	397	0.
1 JAN 0150	23	5.	*	1 JAN 1215	148	4795.	*	1 JAN 2240	273	29.	*	2 JAN 0905	398	0.
1 JAN 0155	24	5.	*	1 JAN 1220	149	4782.	*	1 JAN 2245	274	29.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	5132.	*	1 JAN 2250	275	29.	*	2 JAN 0915	400	0.
1 JAN 0205	26	6.	*	1 JAN 1230	151	6377.	*	1 JAN 2255	276	29.	*	2 JAN 0920	401	0.
1 JAN 0210	27	6.	*	1 JAN 1235	152	8279.	*	1 JAN 2300	277	28.	*	2 JAN 0925	402	0.
1 JAN 0215	28	7.	*	1 JAN 1240	153	9963.	*	1 JAN 2305	278	28.	*	2 JAN 0930	403	0.
1 JAN 0220	29	7.	*	1 JAN 1245	154	10830.	*	1 JAN 2310	279	28.	*	2 JAN 0935	404	0.
1 JAN 0225	30	8.	*	1 JAN 1250	155	11050.	*	1 JAN 2315	280	28.	*	2 JAN 0940	405	0.
1 JAN 0230	31	8.	*	1 JAN 1255	156	10755.	*	1 JAN 2320	281	28.	*	2 JAN 0945	406	0.
1 JAN 0235	32	9.	*	1 JAN 1300	157	10179.	*	1 JAN 2325	282	27.	*	2 JAN 0950	407	0.
1 JAN 0240	33	9.	*	1 JAN 1305	158	9504.	*	1 JAN 2330	283	27.	*	2 JAN 0955	408	0.
1 JAN 0245	34	10.	*	1 JAN 1310	159	8739.	*	1 JAN 2335	284	27.	*	2 JAN 1000	409	0.
1 JAN 0250	35	11.	*	1 JAN 1315	160	7895.	*	1 JAN 2340	285	27.	*	2 JAN 1005	410	0.
1 JAN 0255	36	11.	*	1 JAN 1320	161	7090.	*	1 JAN 2345	286	27.	*	2 JAN 1010	411	0.
1 JAN 0300	37	12.	*	1 JAN 1325	162	6405.	*	1 JAN 2350	287	26.	*	2 JAN 1015	412	0.

1 JAN 0305	38	12.	*	1 JAN 1330	163	5735.	*	1 JAN 2355	288	26.	*	2 JAN 1020	413	0.					
1 JAN 0310	39	13.	*	1 JAN 1335	164	5087.	*	2 JAN 0000	289	26.	*	2 JAN 1025	414	0.					
1 JAN 0315	40	14.	*	1 JAN 1340	165	4537.	*	2 JAN 0005	290	26.	*	2 JAN 1030	415	0.					
1 JAN 0320	41	14.	*	1 JAN 1345	166	4144.	*	2 JAN 0010	291	25.	*	2 JAN 1035	416	0.					
1 JAN 0325	42	15.	*	1 JAN 1350	167	3754.	*	2 JAN 0015	292	25.	*	2 JAN 1040	417	0.					
1 JAN 0330	43	15.	*	1 JAN 1355	168	3371.	*	2 JAN 0020	293	25.	*	2 JAN 1045	418	0.					
1 JAN 0335	44	16.	*	1 JAN 1400	169	3032.	*	2 JAN 0025	294	24.	*	2 JAN 1050	419	0.					
1 JAN 0340	45	16.	*	1 JAN 1405	170	2744.	*	2 JAN 0030	295	24.	*	2 JAN 1055	420	0.					
1 JAN 0345	46	17.	*	1 JAN 1410	171	2533.	*	2 JAN 0035	296	24.	*	2 JAN 1100	421	0.					
1 JAN 0350	47	17.	*	1 JAN 1415	172	2286.	*	2 JAN 0040	297	23.	*	2 JAN 1105	422	0.					
1 JAN 0355	48	18.	*	1 JAN 1420	173	1964.	*	2 JAN 0045	298	23.	*	2 JAN 1110	423	0.					
1 JAN 0400	49	18.	*	1 JAN 1425	174	1513.	*	2 JAN 0050	299	23.	*	2 JAN 1115	424	0.					
1 JAN 0405	50	19.	*	1 JAN 1430	175	929.	*	2 JAN 0055	300	23.	*	2 JAN 1120	425	0.					
1 JAN 0410	51	19.	*	1 JAN 1435	176	753.	*	2 JAN 0100	301	23.	*	2 JAN 1125	426	0.					
1 JAN 0415	52	20.	*	1 JAN 1440	177	673.	*	2 JAN 0105	302	22.	*	2 JAN 1130	427	0.					
1 JAN 0420	53	20.	*	1 JAN 1445	178	614.	*	2 JAN 0110	303	22.	*	2 JAN 1135	428	0.					
1 JAN 0425	54	20.	*	1 JAN 1450	179	560.	*	2 JAN 0115	304	22.	*	2 JAN 1140	429	0.					
1 JAN 0430	55	21.	*	1 JAN 1455	180	512.	*	2 JAN 0120	305	22.	*	2 JAN 1145	430	0.					
1 JAN 0435	56	21.	*	1 JAN 1500	181	473.	*	2 JAN 0125	306	21.	*	2 JAN 1150	431	0.					
1 JAN 0440	57	22.	*	1 JAN 1505	182	439.	*	2 JAN 0130	307	21.	*	2 JAN 1155	432	0.					
1 JAN 0445	58	22.	*	1 JAN 1510	183	407.	*	2 JAN 0135	308	21.	*	2 JAN 1200	433	0.					
1 JAN 0450	59	22.	*	1 JAN 1515	184	377.	*	2 JAN 0140	309	20.	*	2 JAN 1205	434	0.					
1 JAN 0455	60	22.	*	1 JAN 1520	185	350.	*	2 JAN 0145	310	20.	*	2 JAN 1210	435	0.					
1 JAN 0500	61	23.	*	1 JAN 1525	186	328.	*	2 JAN 0150	311	19.	*	2 JAN 1215	436	0.					
1 JAN 0505	62	23.	*	1 JAN 1530	187	309.	*	2 JAN 0155	312	19.	*	2 JAN 1220	437	0.					
1 JAN 0510	63	23.	*	1 JAN 1535	188	289.	*	2 JAN 0200	313	18.	*	2 JAN 1225	438	0.					
1 JAN 0515	64	24.	*	1 JAN 1540	189	271.	*	2 JAN 0205	314	18.	*	2 JAN 1230	439	0.					
1 JAN 0520	65	24.	*	1 JAN 1545	190	254.	*	2 JAN 0210	315	17.	*	2 JAN 1235	440	0.					
1 JAN 0525	66	24.	*	1 JAN 1550	191	238.	*	2 JAN 0215	316	17.	*	2 JAN 1240	441	0.					
1 JAN 0530	67	24.	*	1 JAN 1555	192	224.	*	2 JAN 0220	317	16.	*	2 JAN 1245	442	0.					
1 JAN 0535	68	25.	*	1 JAN 1600	193	212.	*	2 JAN 0225	318	15.	*	2 JAN 1250	443	0.					
1 JAN 0540	69	25.	*	1 JAN 1605	194	202.	*	2 JAN 0230	319	15.	*	2 JAN 1255	444	0.					
1 JAN 0545	70	26.	*	1 JAN 1610	195	194.	*	2 JAN 0235	320	14.	*	2 JAN 1300	445	0.					
1 JAN 0550	71	26.	*	1 JAN 1615	196	185.	*	2 JAN 0240	321	14.	*	2 JAN 1305	446	0.					
1 JAN 0555	72	26.	*	1 JAN 1620	197	177.	*	2 JAN 0245	322	13.	*	2 JAN 1310	447	0.					
1 JAN 0600	73	27.	*	1 JAN 1625	198	170.	*	2 JAN 0250	323	12.	*	2 JAN 1315	448	0.					
1 JAN 0605	74	27.	*	1 JAN 1630	199	162.	*	2 JAN 0255	324	12.	*	2 JAN 1320	449	0.					
1 JAN 0610	75	27.	*	1 JAN 1635	200	155.	*	2 JAN 0300	325	11.	*	2 JAN 1325	450	0.					
1 JAN 0615	76	28.	*	1 JAN 1640	201	149.	*	2 JAN 0305	326	11.	*	2 JAN 1330	451	0.					
1 JAN 0620	77	28.	*	1 JAN 1645	202	143.	*	2 JAN 0310	327	10.	*	2 JAN 1335	452	0.					
1 JAN 0625	78	29.	*	1 JAN 1650	203	137.	*	2 JAN 0315	328	9.	*	2 JAN 1340	453	0.					
1 JAN 0630	79	29.	*	1 JAN 1655	204	132.	*	2 JAN 0320	329	9.	*	2 JAN 1345	454	0.					
1 JAN 0635	80	30.	*	1 JAN 1700	205	128.	*	2 JAN 0325	330	8.	*	2 JAN 1350	455	0.					
1 JAN 0640	81	30.	*	1 JAN 1705	206	124.	*	2 JAN 0330	331	8.	*	2 JAN 1355	456	0.					
1 JAN 0645	82	30.	*	1 JAN 1710	207	120.	*	2 JAN 0335	332	8.	*	2 JAN 1400	457	0.					
1 JAN 0650	83	31.	*	1 JAN 1715	208	117.	*	2 JAN 0340	333	7.	*	2 JAN 1405	458	0.					
1 JAN 0655	84	32.	*	1 JAN 1720	209	114.	*	2 JAN 0345	334	7.	*	2 JAN 1410	459	0.					
1 JAN 0700	85	32.	*	1 JAN 1725	210	111.	*	2 JAN 0350	335	6.	*	2 JAN 1415	460	0.					
1 JAN 0705	86	33.	*	1 JAN 1730	211	109.	*	2 JAN 0355	336	6.	*	2 JAN 1420	461	0.					
1 JAN 0710	87	33.	*	1 JAN 1735	212	106.	*	2 JAN 0400	337	6.	*	2 JAN 1425	462	0.					
1 JAN 0715	88	33.	*	1 JAN 1740	213	104.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.					
1 JAN 0720	89	34.	*	1 JAN 1745	214	102.	*	2 JAN 0410	339	5.	*	2 JAN 1435	464	0.					
1 JAN 0725	90	34.	*	1 JAN 1750	215	100.	*	2 JAN 0415	340	5.	*	2 JAN 1440	465	0.					
1 JAN 0730	91	35.	*	1 JAN 1755	216	98.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.					
1 JAN 0735	92	35.	*	1 JAN 1800	217	96.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.					
1 JAN 0740	93	35.	*	1 JAN 1805	218	94.	*	2 JAN 0430	343	4.	*	2 JAN 1455	468	0.					
1 JAN 0745	94	36.	*	1 JAN 1810	219	92.	*	2 JAN 0435	344	4.	*	2 JAN 1500	469	0.					
1 JAN 0750	95	36.	*	1 JAN 1815	220	90.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.					
1 JAN 0755	96	36.	*	1 JAN 1820	221	88.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.					
1 JAN 0800	97	37.	*	1 JAN 1825	222	86.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.					
1 JAN 0805	98	37.	*	1 JAN 1830	223	85.	*	2 JAN 0455	348	3.	*	2 JAN 1520	473	0.					
1 JAN 0810	99	37.	*	1 JAN 1835	224	83.	*	2 JAN 0500	349	3.	*	2 JAN 1525	474	0.					
1 JAN 0815	100	38.	*	1 JAN 1840	225	81.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.					
1 JAN 0820	101	38.	*	1 JAN 1845	226	79.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.					
1 JAN 0825	102	38.	*	1 JAN 1850	227	78.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.					
1 JAN 0830	103	39.	*	1 JAN 1855	228	76.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.					
1 JAN 0835	104	39.	*	1 JAN 1900	229	74.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.					
1 JAN 0840	105	40.	*	1 JAN 1905	230	72.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.					
1 JAN 0845	106	40.	*	1 JAN 1910	231	70.	*	2 JAN 0535	356	2.	*	2 JAN 1600	481	0.					
1 JAN 0850	107	40.	*	1 JAN 1915	232	69.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.					
1 JAN 0855	108	41.	*	1 JAN 1920	233	67.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.					
1 JAN 0900	109	41.	*	1 JAN 1925	234	65.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.					
1 JAN 0905	110	42.	*	1 JAN 1930	235	63.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.					
1 JAN 0910	111	42.	*	1 JAN 1935	236	62.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.					
1 JAN 0915	112	43.	*	1 JAN 1940	237	60.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.					
1 JAN 0920	113	43.	*	1 JAN 1945	238	59.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.					
1 JAN 0925	114	44.	*	1 JAN 1950	239	57.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.					
1 JAN 0930	115	45.	*	1 JAN 1955	240	56.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.					
1 JAN 0935	116	46.	*	1 JAN 2000	241	55.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.					
1 JAN 0940	117	46.	*	1 JAN 2005	242	54.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.					
1 JAN 0945	118	47.	*	1 JAN 2010	243	53.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.					
1 JAN 0950	119	48.	*	1 JAN 2015	244	52.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.					
1 JAN 0955	120	49.	*	1 JAN 2020	245	51.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.					
1 JAN 1000	121	50.	*	1 JAN 2025	246	50.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.					
1 JAN 1005	122	51.	*	1 JAN 2030	247	49.	*	2 JAN 0655	372	1.	*	2 JAN 1720	497	0.					
1 JAN 1010	123	52.	*	1 JAN 2035	248	49.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.					
1 JAN 1015	124	54.	*	1 JAN 2040	249	48.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.					
1 JAN 1020	125	55.	*	1 JAN 2045	250	47.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.					
			*				*				*								

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 11050.	12.83		2624.	686.	397.	397.
		(INCHES)	1.823	1.908	1.911	1.911
		(AC-FT)	1301.	1362.	1364.	1364.

CUMULATIVE AREA = 13.38 SQ MI

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HYDROGRAPH AT C010
TRANSPOSITION AREA 1.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	56.	1 JAN 2050	251	45.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	58.	1 JAN 2055	252	45.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	61.	1 JAN 2100	253	44.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	65.	1 JAN 2105	254	43.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	70.	1 JAN 2110	255	42.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	77.	1 JAN 2115	256	41.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	87.	1 JAN 2120	257	40.	2 JAN 0745	382	0.
1 JAN 0035	8	2.	1 JAN 1100	133	98.	1 JAN 2125	258	39.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	110.	1 JAN 2130	259	38.	2 JAN 0755	384	0.
1 JAN 0045	10	2.	1 JAN 1110	135	125.	1 JAN 2135	260	37.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	141.	1 JAN 2140	261	36.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	161.	1 JAN 2145	262	35.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	187.	1 JAN 2150	263	34.	2 JAN 0815	388	0.
1 JAN 0105	14	3.	1 JAN 1130	139	221.	1 JAN 2155	264	33.	2 JAN 0820	389	0.
1 JAN 0110	15	3.	1 JAN 1135	140	287.	1 JAN 2200	265	32.	2 JAN 0825	390	0.
1 JAN 0115	16	3.	1 JAN 1140	141	431.	1 JAN 2205	266	31.	2 JAN 0830	391	0.
1 JAN 0120	17	3.	1 JAN 1145	142	667.	1 JAN 2210	267	31.	2 JAN 0835	392	0.
1 JAN 0125	18	3.	1 JAN 1150	143	1073.	1 JAN 2215	268	30.	2 JAN 0840	393	0.
1 JAN 0130	19	3.	1 JAN 1155	144	1694.	1 JAN 2220	269	30.	2 JAN 0845	394	0.
1 JAN 0135	20	4.	1 JAN 1200	145	2642.	1 JAN 2225	270	30.	2 JAN 0850	395	0.
1 JAN 0140	21	4.	1 JAN 1205	146	3814.	1 JAN 2230	271	29.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	4519.	1 JAN 2235	272	29.	2 JAN 0900	397	0.
1 JAN 0150	23	5.	1 JAN 1215	148	4756.	1 JAN 2240	273	29.	2 JAN 0905	398	0.
1 JAN 0155	24	5.	1 JAN 1220	149	4739.	1 JAN 2245	274	29.	2 JAN 0910	399	0.
1 JAN 0200	25	5.	1 JAN 1225	150	5065.	1 JAN 2250	275	29.	2 JAN 0915	400	0.
1 JAN 0205	26	6.	1 JAN 1230	151	6287.	1 JAN 2255	276	29.	2 JAN 0920	401	0.
1 JAN 0210	27	6.	1 JAN 1235	152	8150.	1 JAN 2300	277	28.	2 JAN 0925	402	0.
1 JAN 0215	28	7.	1 JAN 1240	153	9817.	1 JAN 2305	278	28.	2 JAN 0930	403	0.
1 JAN 0220	29	7.	1 JAN 1245	154	10689.	1 JAN 2310	279	28.	2 JAN 0935	404	0.
1 JAN 0225	30	8.	1 JAN 1250	155	10933.	1 JAN 2315	280	28.	2 JAN 0940	405	0.
1 JAN 0230	31	8.	1 JAN 1255	156	10650.	1 JAN 2320	281	27.	2 JAN 0945	406	0.
1 JAN 0235	32	9.	1 JAN 1300	157	10089.	1 JAN 2325	282	27.	2 JAN 0950	407	0.
1 JAN 0240	33	9.	1 JAN 1305	158	9431.	1 JAN 2330	283	27.	2 JAN 0955	408	0.
1 JAN 0245	34	10.	1 JAN 1310	159	8667.	1 JAN 2335	284	27.	2 JAN 1000	409	0.
1 JAN 0250	35	11.	1 JAN 1315	160	7827.	1 JAN 2340	285	27.	2 JAN 1005	410	0.
1 JAN 0255	36	11.	1 JAN 1320	161	7032.	1 JAN 2345	286	26.	2 JAN 1010	411	0.
1 JAN 0300	37	12.	1 JAN 1325	162	6360.	1 JAN 2350	287	26.	2 JAN 1015	412	0.
1 JAN 0305	38	12.	1 JAN 1330	163	5690.	1 JAN 2355	288	26.	2 JAN 1020	413	0.
1 JAN 0310	39	13.	1 JAN 1335	164	5047.	2 JAN 0000	289	26.	2 JAN 1025	414	0.
1 JAN 0315	40	14.	1 JAN 1340	165	4503.	2 JAN 0005	290	26.	2 JAN 1030	415	0.
1 JAN 0320	41	14.	1 JAN 1345	166	4119.	2 JAN 0010	291	25.	2 JAN 1035	416	0.
1 JAN 0325	42	15.	1 JAN 1350	167	3728.	2 JAN 0015	292	25.	2 JAN 1040	417	0.
1 JAN 0330	43	15.	1 JAN 1355	168	3347.	2 JAN 0020	293	24.	2 JAN 1045	418	0.
1 JAN 0335	44	16.	1 JAN 1400	169	3011.	2 JAN 0025	294	24.	2 JAN 1050	419	0.
1 JAN 0340	45	16.	1 JAN 1405	170	2726.	2 JAN 0030	295	24.	2 JAN 1055	420	0.
1 JAN 0345	46	17.	1 JAN 1410	171	2519.	2 JAN 0035	296	23.	2 JAN 1100	421	0.
1 JAN 0350	47	17.	1 JAN 1415	172	2268.	2 JAN 0040	297	23.	2 JAN 1105	422	0.
1 JAN 0355	48	18.	1 JAN 1420	173	1938.	2 JAN 0045	298	23.	2 JAN 1110	423	0.
1 JAN 0400	49	18.	1 JAN 1425	174	1477.	2 JAN 0050	299	23.	2 JAN 1115	424	0.
1 JAN 0405	50	19.	1 JAN 1430	175	898.	2 JAN 0055	300	23.	2 JAN 1120	425	0.
1 JAN 0410	51	19.	1 JAN 1435	176	744.	2 JAN 0100	301	22.	2 JAN 1125	426	0.
1 JAN 0415	52	20.	1 JAN 1440	177	666.	2 JAN 0105	302	22.	2 JAN 1130	427	0.
1 JAN 0420	53	20.	1 JAN 1445	178	608.	2 JAN 0110	303	22.	2 JAN 1135	428	0.
1 JAN 0425	54	20.	1 JAN 1450	179	554.	2 JAN 0115	304	22.	2 JAN 1140	429	0.
1 JAN 0430	55	21.	1 JAN 1455	180	507.	2 JAN 0120	305	21.	2 JAN 1145	430	0.
1 JAN 0435	56	21.	1 JAN 1500	181	469.	2 JAN 0125	306	21.	2 JAN 1150	431	0.
1 JAN 0440	57	21.	1 JAN 1505	182	435.	2 JAN 0130	307	21.	2 JAN 1155	432	0.
1 JAN 0445	58	22.	1 JAN 1510	183	403.	2 JAN 0135	308	20.	2 JAN 1200	433	0.
1 JAN 0450	59	22.	1 JAN 1515	184	373.	2 JAN 0140	309	20.	2 JAN 1205	434	0.
1 JAN 0455	60	22.	1 JAN 1520	185	346.	2 JAN 0145	310	20.	2 JAN 1210	435	0.
1 JAN 0500	61	23.	1 JAN 1525	186	324.	2 JAN 0150	311	19.	2 JAN 1215	436	0.
1 JAN 0505	62	23.	1 JAN 1530	187	305.	2 JAN 0155	312	19.	2 JAN 1220	437	0.
1 JAN 0510	63	23.	1 JAN 1535	188	286.	2 JAN 0200	313	18.	2 JAN 1225	438	0.
1 JAN 0515	64	23.	1 JAN 1540	189	268.	2 JAN 0205	314	18.	2 JAN 1230	439	0.
1 JAN 0520	65	24.	1 JAN 1545	190	251.	2 JAN 0210	315	17.	2 JAN 1235	440	0.
1 JAN 0525	66	24.	1 JAN 1550	191	235.	2 JAN 0215	316	17.	2 JAN 1240	441	0.
1 JAN 0530	67	24.	1 JAN 1555	192	221.	2 JAN 0220	317	16.	2 JAN 1245	442	0.
1 JAN 0535	68	25.	1 JAN 1600	193	209.	2 JAN 0225	318	15.	2 JAN 1250	443	0.
1 JAN 0540	69	25.	1 JAN 1605	194	200.	2 JAN 0230	319	15.	2 JAN 1255	444	0.
1 JAN 0545	70	25.	1 JAN 1610	195	191.	2 JAN 0235	320	14.	2 JAN 1300	445	0.
1 JAN 0550	71	26.	1 JAN 1615	196	183.	2 JAN 0240	321	13.	2 JAN 1305	446	0.
1 JAN 0555	72	26.	1 JAN 1620	197	175.	2 JAN 0245	322	13.	2 JAN 1310	447	0.
1 JAN 0600	73	26.	1 JAN 1625	198	167.	2 JAN 0250	323	12.	2 JAN 1315	448	0.
1 JAN 0605	74	27.	1 JAN 1630	199	160.	2 JAN 0255	324	12.	2 JAN 1320	449	0.
1 JAN 0610	75	27.	1 JAN 1635	200	153.	2 JAN 0300	325	11.	2 JAN 1325	450	0.
1 JAN 0615	76	28.	1 JAN 1640	201	146.	2 JAN 0305	326	10.	2 JAN 1330	451	0.
1 JAN 0620	77	28.	1 JAN 1645	202	140.	2 JAN 0310	327	10.	2 JAN 1335	452	0.
1 JAN 0625	78	29.	1 JAN 1650	203	135.	2 JAN 0315	328	9.	2 JAN 1340	453	0.
1 JAN 0630	79	29.	1 JAN 1655	204	130.	2 JAN 0320	329	9.	2 JAN 1345	454	0.
1 JAN 0635	80	29.	1 JAN 1700	205	126.	2 JAN 0325	330	8.	2 JAN 1350	455	0.
1 JAN 0640	81	30.	1 JAN 1705	206	122.	2 JAN 0330	331	8.	2 JAN 1355	456	0.
1 JAN 0645	82	30.	1 JAN 1710	207	118.	2 JAN 0335	332	7.	2 JAN 1400	457	0.
1 JAN 0650	83	31.	1 JAN 1715	208	115.	2 JAN 0340	333	7.	2 JAN 1405	458	0.
1 JAN 0655	84	31.	1 JAN 1720	209	112.	2 JAN 0345	334	7.	2 JAN 1410	459	0.
1 JAN 0700	85	32.	1 JAN 1725	210	109.	2 JAN 0350	335	6.	2 JAN 1415	460	0.
1 JAN 0705	86	32.	1 JAN 1730	211	107.	2 JAN 0355	336	6.	2 JAN 1420	461	0.
1 JAN 0710	87	33.	1 JAN 1735	212	105.	2 JAN 0400	337	6.	2 JAN 1425	462	0.
1 JAN 0715	88	33.	1 JAN 1740	213	103.	2 JAN 0405	338	5.	2 JAN 1430	463	0.
1 JAN 0720	89	33.	1 JAN 1745	214	101.	2 JAN 0410	339	5.	2 JAN 1435	464	0.
1 JAN 0725	90	34.	1 JAN 1750	215	99.	2 JAN 0415	340	5.	2 JAN 1440	465	0.
1 JAN 0730	91	34.	1 JAN 1755	216	97.	2 JAN 0420	341	4.	2 JAN 1445	466	0.
1 JAN 0735	92	35.	1 JAN 1800	217	95.	2 JAN 0425	342	4.	2 JAN 1450	467	0.
1 JAN 0740	93	35.	1 JAN 1805	218	93.	2 JAN 0430	343	4.	2 JAN 1455	468	0.
1 JAN 0745	94	35.	1 JAN 1810	219	91.	2 JAN 0435	344	4.	2 JAN 1500	469	0.
1 JAN 0750	95	36.	1 JAN 1815	220	89.	2 JAN 0440	345	3.	2 JAN 1505	470	0.
1 JAN 0755	96	36.	1 JAN 1820	221	87.	2 JAN 0445	346	3.	2 JAN 1510	471	0.
1 JAN 0800	97	36.	1 JAN 1825	222	85.	2 JAN 0450	347	3.	2 JAN 1515	472	0.
1 JAN 0805	98	37.	1 JAN 1830	223	83.	2 JAN 0455	348	3.	2 JAN 1520	473	0.
1 JAN 0810	99	37.	1 JAN 1835	224	81.	2 JAN 0500	349	3.	2 JAN 1525	474	0.
1 JAN 0815	100	37.	1 JAN 1840	225	80.	2 JAN 0505	350	2.	2 JAN 1530	475	0.
1 JAN 0820	101	38.	1 JAN 1845	226	78.	2 JAN 0510	351	2.	2 JAN 1535	476	0.

1	JAN	0825	102	38.	*	1	JAN	1850	227	76.	*	2	JAN	0515	352	2.	*	2	JAN	1540	477	0.
1	JAN	0830	103	39.	*	1	JAN	1855	228	75.	*	2	JAN	0520	353	2.	*	2	JAN	1545	478	0.
1	JAN	0835	104	39.	*	1	JAN	1900	229	73.	*	2	JAN	0525	354	2.	*	2	JAN	1550	479	0.
1	JAN	0840	105	39.	*	1	JAN	1905	230	71.	*	2	JAN	0530	355	2.	*	2	JAN	1555	480	0.
1	JAN	0845	106	40.	*	1	JAN	1910	231	69.	*	2	JAN	0535	356	2.	*	2	JAN	1600	481	0.
1	JAN	0850	107	40.	*	1	JAN	1915	232	67.	*	2	JAN	0540	357	1.	*	2	JAN	1605	482	0.
1	JAN	0855	108	40.	*	1	JAN	1920	233	66.	*	2	JAN	0545	358	1.	*	2	JAN	1610	483	0.
1	JAN	0900	109	41.	*	1	JAN	1925	234	64.	*	2	JAN	0550	359	1.	*	2	JAN	1615	484	0.
1	JAN	0905	110	41.	*	1	JAN	1930	235	62.	*	2	JAN	0555	360	1.	*	2	JAN	1620	485	0.
1	JAN	0910	111	42.	*	1	JAN	1935	236	61.	*	2	JAN	0600	361	1.	*	2	JAN	1625	486	0.
1	JAN	0915	112	42.	*	1	JAN	1940	237	59.	*	2	JAN	0605	362	1.	*	2	JAN	1630	487	0.
1	JAN	0920	113	43.	*	1	JAN	1945	238	58.	*	2	JAN	0610	363	1.	*	2	JAN	1635	488	0.
1	JAN	0925	114	44.	*	1	JAN	1950	239	56.	*	2	JAN	0615	364	1.	*	2	JAN	1640	489	0.
1	JAN	0930	115	45.	*	1	JAN	1955	240	55.	*	2	JAN	0620	365	1.	*	2	JAN	1645	490	0.
1	JAN	0935	116	45.	*	1	JAN	2000	241	54.	*	2	JAN	0625	366	1.	*	2	JAN	1650	491	0.
1	JAN	0940	117	46.	*	1	JAN	2005	242	53.	*	2	JAN	0630	367	1.	*	2	JAN	1655	492	0.
1	JAN	0945	118	47.	*	1	JAN	2010	243	52.	*	2	JAN	0635	368	1.	*	2	JAN	1700	493	0.
1	JAN	0950	119	48.	*	1	JAN	2015	244	51.	*	2	JAN	0640	369	1.	*	2	JAN	1705	494	0.
1	JAN	0955	120	49.	*	1	JAN	2020	245	50.	*	2	JAN	0645	370	1.	*	2	JAN	1710	495	0.
1	JAN	1000	121	50.	*	1	JAN	2025	246	49.	*	2	JAN	0650	371	1.	*	2	JAN	1715	496	0.
1	JAN	1005	122	51.	*	1	JAN	2030	247	48.	*	2	JAN	0655	372	1.	*	2	JAN	1720	497	0.
1	JAN	1010	123	52.	*	1	JAN	2035	248	48.	*	2	JAN	0700	373	0.	*	2	JAN	1725	498	0.
1	JAN	1015	124	53.	*	1	JAN	2040	249	47.	*	2	JAN	0705	374	0.	*	2	JAN	1730	499	0.
1	JAN	1020	125	55.	*	1	JAN	2045	250	46.	*	2	JAN	0710	375	0.	*	2	JAN	1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 10933.	12.83	2597.	679.	393.	393.
		(INCHES) 1.804	1.888	1.891	1.891
		(AC-FT) 1288.	1347.	1350.	1350.

CUMULATIVE AREA = 13.38 SQ MI

HYDROGRAPH AT C010
TRANSPOSITION AREA 5.0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	*	1	JAN	1025	126	54.	*	1	JAN	2050	251	42.	*	2	JAN	0715	376	0.
1	JAN	0005	2	0.	*	1	JAN	1030	127	56.	*	1	JAN	2055	252	42.	*	2	JAN	0720	377	0.
1	JAN	0010	3	0.	*	1	JAN	1035	128	58.	*	1	JAN	2100	253	41.	*	2	JAN	0725	378	0.
1	JAN	0015	4	0.	*	1	JAN	1040	129	61.	*	1	JAN	2105	254	40.	*	2	JAN	0730	379	0.
1	JAN	0020	5	1.	*	1	JAN	1045	130	65.	*	1	JAN	2110	255	39.	*	2	JAN	0735	380	0.
1	JAN	0025	6	1.	*	1	JAN	1050	131	71.	*	1	JAN	2115	256	38.	*	2	JAN	0740	381	0.
1	JAN	0030	7	1.	*	1	JAN	1055	132	79.	*	1	JAN	2120	257	37.	*	2	JAN	0745	382	0.
1	JAN	0035	8	2.	*	1	JAN	1100	133	89.	*	1	JAN	2125	258	36.	*	2	JAN	0750	383	0.
1	JAN	0040	9	2.	*	1	JAN	1105	134	100.	*	1	JAN	2130	259	35.	*	2	JAN	0755	384	0.
1	JAN	0045	10	2.	*	1	JAN	1110	135	114.	*	1	JAN	2135	260	35.	*	2	JAN	0800	385	0.
1	JAN	0050	11	2.	*	1	JAN	1115	136	129.	*	1	JAN	2140	261	34.	*	2	JAN	0805	386	0.
1	JAN	0055	12	2.	*	1	JAN	1120	137	147.	*	1	JAN	2145	262	33.	*	2	JAN	0810	387	0.
1	JAN	0100	13	2.	*	1	JAN	1125	138	169.	*	1	JAN	2150	263	32.	*	2	JAN	0815	388	0.
1	JAN	0105	14	2.	*	1	JAN	1130	139	197.	*	1	JAN	2155	264	31.	*	2	JAN	0820	389	0.
1	JAN	0110	15	3.	*	1	JAN	1135	140	262.	*	1	JAN	2200	265	31.	*	2	JAN	0825	390	0.
1	JAN	0115	16	3.	*	1	JAN	1140	141	402.	*	1	JAN	2205	266	30.	*	2	JAN	0830	391	0.
1	JAN	0120	17	3.	*	1	JAN	1145	142	629.	*	1	JAN	2210	267	30.	*	2	JAN	0835	392	0.
1	JAN	0125	18	3.	*	1	JAN	1150	143	1016.	*	1	JAN	2215	268	30.	*	2	JAN	0840	393	0.
1	JAN	0130	19	3.	*	1	JAN	1155	144	1611.	*	1	JAN	2220	269	29.	*	2	JAN	0845	394	0.
1	JAN	0135	20	4.	*	1	JAN	1200	145	2526.	*	1	JAN	2225	270	29.	*	2	JAN	0850	395	0.
1	JAN	0140	21	4.	*	1	JAN	1205	146	3685.	*	1	JAN	2230	271	29.	*	2	JAN	0855	396	0.
1	JAN	0145	22	4.	*	1	JAN	1210	147	4405.	*	1	JAN	2235	272	29.	*	2	JAN	0900	397	0.
1	JAN	0150	23	4.	*	1	JAN	1215	148	4627.	*	1	JAN	2240	273	29.	*	2	JAN	0905	398	0.
1	JAN	0155	24	5.	*	1	JAN	1220	149	4605.	*	1	JAN	2245	274	28.	*	2	JAN	0910	399	0.
1	JAN	0200	25	5.	*	1	JAN	1225	150	4889.	*	1	JAN	2250	275	28.	*	2	JAN	0915	400	0.
1	JAN	0205	26	6.	*	1	JAN	1230	151	5986.	*	1	JAN	2255	276	28.	*	2	JAN	0920	401	0.
1	JAN	0210	27	6.	*	1	JAN	1235	152	7711.	*	1	JAN	2300	277	28.	*	2	JAN	0925	402	0.
1	JAN	0215	28	7.	*	1	JAN	1240	153	9322.	*	1	JAN	2305	278	27.	*	2	JAN	0930	403	0.
1	JAN	0220	29	7.	*	1	JAN	1245	154	10228.	*	1	JAN	2310	279	27.	*	2	JAN	0935	404	0.
1	JAN	0225	30	8.	*	1	JAN	1250	155	10509.	*	1	JAN	2315	280	27.	*	2	JAN	0940	405	0.
1	JAN	0230	31	8.	*	1	JAN	1255	156	10295.	*	1	JAN	2320	281	27.	*	2	JAN	0945	406	0.
1	JAN	0235	32	9.	*	1	JAN	1300	157	9806.	*	1	JAN	2325	282	27.	*	2	JAN	0950	407	0.
1	JAN	0240	33	9.	*	1	JAN	1305	158	9181.	*	1	JAN	2330	283	26.	*	2	JAN	0955	408	0.
1	JAN	0245	34	10.	*	1	JAN	1310	159	8419.	*	1	JAN	2335	284	26.	*	2	JAN	1000	409	0.
1	JAN	0250	35	10.	*	1	JAN	1315	160	7599.	*	1	JAN	2340	285	26.	*	2	JAN	1005	410	0.
1	JAN	0255	36	11.	*	1	JAN	1320	161	6841.	*	1	JAN	2345	286	26.	*	2	JAN	1010	411	0.
1	JAN	0300	37	12.	*	1	JAN	1325	162	6208.	*	1	JAN	2350	287	26.	*	2	JAN	1015	412	0.
1	JAN	0305	38	12.	*	1	JAN	1330	163	5541.	*	1	JAN	2355	288	26.	*	2	JAN	1020	413	0.
1	JAN	0310	39	13.	*	1	JAN	1335	164	4921.	*	2	JAN	0000	289	25.	*	2	JAN	1025	414	0.
1	JAN	0315	40	13.	*	1	JAN	1340	165	4408.	*	2	JAN	0005	290	25.	*	2	JAN	1030	415	0.
1	JAN	0320	41	14.	*	1	JAN	1345	166	4031.	*	2	JAN	0010	291	25.	*	2	JAN	1035	416	0.
1	JAN	0325	42	14.	*	1	JAN	1350	167	3639.	*	2	JAN	0015	292	24.	*	2	JAN	1040	417	0.
1	JAN	0330	43	15.	*	1	JAN	1355	168	3266.	*	2	JAN	0020	293	24.	*	2	JAN	1045	418	0.
1	JAN	0335	44	15.	*	1	JAN	1400	169	2942.	*	2	JAN	0025	294	24.	*	2	JAN	1050	419	0.
1	JAN	0340	45	16.	*	1	JAN	1405	170	2678.	*	2	JAN	0030	295	23.	*	2	JAN	1055	420	0.
1	JAN	0345	46	16.	*	1	JAN	1410	171	2463.	*	2	JAN	0035	296	23.	*	2	JAN	1100	421	0.
1	JAN	0350	47	17.	*	1	JAN	1415	172	2197.	*	2	JAN	0040	297	23.	*	2	JAN	1105	422	0.
1	JAN	0355	48	17.	*	1	JAN	1420	173	1846.	*	2	JAN	0045	298	23.	*	2	JAN	1110	423	0.
1	JAN	0400	49	18.	*	1	JAN	1425	174	1332.	*	2	JAN	0050	299	22.	*	2	JAN	1115	424	0.
1	JAN	0405	50	18.	*	1	JAN	1430	175	828.	*	2	JAN	0055	300	22.	*	2	JAN	1120	425	0.
1	JAN	0410	51	19.	*	1	JAN	1435	176	715.	*	2	JAN	0100	301	22.	*	2	JAN	1125	426	0.
1	JAN	0415	52	19.	*	1	JAN	1440	177	645.	*	2	JAN	0105	302	22.	*	2	JAN	1130	427	0.
1	JAN	0420	53	19.	*	1	JAN	1445	178	588.	*	2	JAN	0110	303	21.	*	2	JAN	1135	428	0.
1	JAN	0425	54	20.	*	1	JAN	1450	179	536.	*	2	JAN	0115	304	21.	*	2	JAN	1140	429	0.
1	JAN	0430	55	20.	*	1	JAN	1455	180	491.	*	2	JAN	0120	305	21.	*	2	JAN	1145	430	0.
1	JAN	0435	56	21.	*	1	JAN	1500	181	455.	*	2	JAN	0125	306	21.	*	2	JAN	1150	431	0.
1	JAN	0440	57	21.	*	1	JAN	1505	182	421.	*	2	JAN	0130	307	20.	*	2	JAN	1155	432	0.
1	JAN	0445	58	21.	*	1	JAN	1510	183	389.	*	2	JAN	0135	308	20.	*	2	JAN	1200	433	0.
1	JAN	0450	59	21.	*	1	JAN	1515	184	360.	*	2	JAN	0140	309	20.	*	2	JAN	1205	434	0.

1 JAN 0455	60	22.	*	1 JAN 1520	185	335.	*	2 JAN 0145	310	19.	*	2 JAN 1210	435	0.
1 JAN 0500	61	22.	*	1 JAN 1525	186	314.	*	2 JAN 0150	311	19.	*	2 JAN 1215	436	0.
1 JAN 0505	62	22.	*	1 JAN 1530	187	294.	*	2 JAN 0155	312	18.	*	2 JAN 1220	437	0.
1 JAN 0510	63	23.	*	1 JAN 1535	188	275.	*	2 JAN 0200	313	18.	*	2 JAN 1225	438	0.
1 JAN 0515	64	23.	*	1 JAN 1540	189	257.	*	2 JAN 0205	314	17.	*	2 JAN 1230	439	0.
1 JAN 0520	65	23.	*	1 JAN 1545	190	240.	*	2 JAN 0210	315	17.	*	2 JAN 1235	440	0.
1 JAN 0525	66	23.	*	1 JAN 1550	191	225.	*	2 JAN 0215	316	16.	*	2 JAN 1240	441	0.
1 JAN 0530	67	24.	*	1 JAN 1555	192	212.	*	2 JAN 0220	317	16.	*	2 JAN 1245	442	0.
1 JAN 0535	68	24.	*	1 JAN 1600	193	202.	*	2 JAN 0225	318	15.	*	2 JAN 1250	443	0.
1 JAN 0540	69	24.	*	1 JAN 1605	194	193.	*	2 JAN 0230	319	14.	*	2 JAN 1255	444	0.
1 JAN 0545	70	25.	*	1 JAN 1610	195	184.	*	2 JAN 0235	320	14.	*	2 JAN 1300	445	0.
1 JAN 0550	71	25.	*	1 JAN 1615	196	175.	*	2 JAN 0240	321	13.	*	2 JAN 1305	446	0.
1 JAN 0555	72	25.	*	1 JAN 1620	197	167.	*	2 JAN 0245	322	13.	*	2 JAN 1310	447	0.
1 JAN 0600	73	26.	*	1 JAN 1625	198	159.	*	2 JAN 0250	323	12.	*	2 JAN 1315	448	0.
1 JAN 0605	74	26.	*	1 JAN 1630	199	152.	*	2 JAN 0255	324	11.	*	2 JAN 1320	449	0.
1 JAN 0610	75	26.	*	1 JAN 1635	200	145.	*	2 JAN 0300	325	11.	*	2 JAN 1325	450	0.
1 JAN 0615	76	27.	*	1 JAN 1640	201	139.	*	2 JAN 0305	326	10.	*	2 JAN 1330	451	0.
1 JAN 0620	77	27.	*	1 JAN 1645	202	133.	*	2 JAN 0310	327	10.	*	2 JAN 1335	452	0.
1 JAN 0625	78	28.	*	1 JAN 1650	203	128.	*	2 JAN 0315	328	9.	*	2 JAN 1340	453	0.
1 JAN 0630	79	28.	*	1 JAN 1655	204	123.	*	2 JAN 0320	329	9.	*	2 JAN 1345	454	0.
1 JAN 0635	80	29.	*	1 JAN 1700	205	119.	*	2 JAN 0325	330	8.	*	2 JAN 1350	455	0.
1 JAN 0640	81	29.	*	1 JAN 1705	206	115.	*	2 JAN 0330	331	8.	*	2 JAN 1355	456	0.
1 JAN 0645	82	29.	*	1 JAN 1710	207	112.	*	2 JAN 0335	332	7.	*	2 JAN 1400	457	0.
1 JAN 0650	83	29.	*	1 JAN 1715	208	109.	*	2 JAN 0340	333	7.	*	2 JAN 1405	458	0.
1 JAN 0655	84	30.	*	1 JAN 1720	209	106.	*	2 JAN 0345	334	6.	*	2 JAN 1410	459	0.
1 JAN 0700	85	30.	*	1 JAN 1725	210	104.	*	2 JAN 0350	335	6.	*	2 JAN 1415	460	0.
1 JAN 0705	86	30.	*	1 JAN 1730	211	102.	*	2 JAN 0355	336	6.	*	2 JAN 1420	461	0.
1 JAN 0710	87	31.	*	1 JAN 1735	212	101.	*	2 JAN 0400	337	5.	*	2 JAN 1425	462	0.
1 JAN 0715	88	32.	*	1 JAN 1740	213	99.	*	2 JAN 0405	338	5.	*	2 JAN 1430	463	0.
1 JAN 0720	89	32.	*	1 JAN 1745	214	96.	*	2 JAN 0410	339	5.	*	2 JAN 1435	464	0.
1 JAN 0725	90	33.	*	1 JAN 1750	215	94.	*	2 JAN 0415	340	4.	*	2 JAN 1440	465	0.
1 JAN 0730	91	33.	*	1 JAN 1755	216	92.	*	2 JAN 0420	341	4.	*	2 JAN 1445	466	0.
1 JAN 0735	92	34.	*	1 JAN 1800	217	90.	*	2 JAN 0425	342	4.	*	2 JAN 1450	467	0.
1 JAN 0740	93	34.	*	1 JAN 1805	218	88.	*	2 JAN 0430	343	4.	*	2 JAN 1455	468	0.
1 JAN 0745	94	35.	*	1 JAN 1810	219	86.	*	2 JAN 0435	344	3.	*	2 JAN 1500	469	0.
1 JAN 0750	95	35.	*	1 JAN 1815	220	84.	*	2 JAN 0440	345	3.	*	2 JAN 1505	470	0.
1 JAN 0755	96	35.	*	1 JAN 1820	221	82.	*	2 JAN 0445	346	3.	*	2 JAN 1510	471	0.
1 JAN 0800	97	36.	*	1 JAN 1825	222	81.	*	2 JAN 0450	347	3.	*	2 JAN 1515	472	0.
1 JAN 0805	98	36.	*	1 JAN 1830	223	79.	*	2 JAN 0455	348	3.	*	2 JAN 1520	473	0.
1 JAN 0810	99	36.	*	1 JAN 1835	224	77.	*	2 JAN 0500	349	2.	*	2 JAN 1525	474	0.
1 JAN 0815	100	37.	*	1 JAN 1840	225	75.	*	2 JAN 0505	350	2.	*	2 JAN 1530	475	0.
1 JAN 0820	101	37.	*	1 JAN 1845	226	74.	*	2 JAN 0510	351	2.	*	2 JAN 1535	476	0.
1 JAN 0825	102	37.	*	1 JAN 1850	227	72.	*	2 JAN 0515	352	2.	*	2 JAN 1540	477	0.
1 JAN 0830	103	38.	*	1 JAN 1855	228	70.	*	2 JAN 0520	353	2.	*	2 JAN 1545	478	0.
1 JAN 0835	104	38.	*	1 JAN 1900	229	69.	*	2 JAN 0525	354	2.	*	2 JAN 1550	479	0.
1 JAN 0840	105	38.	*	1 JAN 1905	230	67.	*	2 JAN 0530	355	2.	*	2 JAN 1555	480	0.
1 JAN 0845	106	39.	*	1 JAN 1910	231	65.	*	2 JAN 0535	356	2.	*	2 JAN 1600	481	0.
1 JAN 0850	107	39.	*	1 JAN 1915	232	63.	*	2 JAN 0540	357	1.	*	2 JAN 1605	482	0.
1 JAN 0855	108	39.	*	1 JAN 1920	233	62.	*	2 JAN 0545	358	1.	*	2 JAN 1610	483	0.
1 JAN 0900	109	40.	*	1 JAN 1925	234	60.	*	2 JAN 0550	359	1.	*	2 JAN 1615	484	0.
1 JAN 0905	110	40.	*	1 JAN 1930	235	58.	*	2 JAN 0555	360	1.	*	2 JAN 1620	485	0.
1 JAN 0910	111	41.	*	1 JAN 1935	236	57.	*	2 JAN 0600	361	1.	*	2 JAN 1625	486	0.
1 JAN 0915	112	41.	*	1 JAN 1940	237	55.	*	2 JAN 0605	362	1.	*	2 JAN 1630	487	0.
1 JAN 0920	113	42.	*	1 JAN 1945	238	54.	*	2 JAN 0610	363	1.	*	2 JAN 1635	488	0.
1 JAN 0925	114	43.	*	1 JAN 1950	239	53.	*	2 JAN 0615	364	1.	*	2 JAN 1640	489	0.
1 JAN 0930	115	43.	*	1 JAN 1955	240	51.	*	2 JAN 0620	365	1.	*	2 JAN 1645	490	0.
1 JAN 0935	116	44.	*	1 JAN 2000	241	50.	*	2 JAN 0625	366	1.	*	2 JAN 1650	491	0.
1 JAN 0940	117	45.	*	1 JAN 2005	242	49.	*	2 JAN 0630	367	1.	*	2 JAN 1655	492	0.
1 JAN 0945	118	46.	*	1 JAN 2010	243	48.	*	2 JAN 0635	368	1.	*	2 JAN 1700	493	0.
1 JAN 0950	119	47.	*	1 JAN 2015	244	47.	*	2 JAN 0640	369	1.	*	2 JAN 1705	494	0.
1 JAN 0955	120	48.	*	1 JAN 2020	245	46.	*	2 JAN 0645	370	1.	*	2 JAN 1710	495	0.
1 JAN 1000	121	49.	*	1 JAN 2025	246	46.	*	2 JAN 0650	371	1.	*	2 JAN 1715	496	0.
1 JAN 1005	122	50.	*	1 JAN 2030	247	45.	*	2 JAN 0655	372	1.	*	2 JAN 1720	497	0.
1 JAN 1010	123	50.	*	1 JAN 2035	248	44.	*	2 JAN 0700	373	0.	*	2 JAN 1725	498	0.
1 JAN 1015	124	52.	*	1 JAN 2040	249	44.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.
1 JAN 1020	125	53.	*	1 JAN 2045	250	43.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 10509.	12.83		2507.	656.	379.	379.
		(INCHES)	1.742	1.822	1.825	1.825
		(AC-FT)	1243.	1300.	1303.	1303.

CUMULATIVE AREA = 13.38 SQ MI

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HYDROGRAPH AT C010
TRANSPOSITION AREA 10.0 SQ MI

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DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	52.	*	1 JAN 2050	251	38.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	53.	*	1 JAN 2055	252	38.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	55.	*	1 JAN 2100	253	37.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	57.	*	1 JAN 2105	254	36.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	60.	*	1 JAN 2110	255	36.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	64.	*	1 JAN 2115	256	35.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	70.	*	1 JAN 2120	257	34.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	79.	*	1 JAN 2125	258	33.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	89.	*	1 JAN 2130	259	33.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	101.	*	1 JAN 2135	260	32.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	115.	*	1 JAN 2140	261	31.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	131.	*	1 JAN 2145	262	31.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	150.	*	1 JAN 2150	263	30.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	174.	*	1 JAN 2155	264	30.	*	2 JAN 0820	389	0.
1 JAN 0110	15	3.	*	1 JAN 1135	140	228.	*	1 JAN 2200	265	29.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	366.	*	1 JAN 2205	266	29.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	584.	*	1 JAN 2210	267	29.	*	2 JAN 0835	392	0.

1 JAN	0125	18	3.	*	1 JAN	1150	143	949.	*	1 JAN	2215	268	29.	*	2 JAN	0840	393	0.	
1 JAN	0130	19	3.	*	1 JAN	1155	144	1512.	*	1 JAN	2220	269	29.	*	2 JAN	0845	394	0.	
1 JAN	0135	20	3.	*	1 JAN	1200	145	2388.	*	1 JAN	2225	270	28.	*	2 JAN	0850	395	0.	
1 JAN	0140	21	4.	*	1 JAN	1205	146	3517.	*	1 JAN	2230	271	28.	*	2 JAN	0855	396	0.	
1 JAN	0145	22	4.	*	1 JAN	1210	147	4264.	*	1 JAN	2235	272	28.	*	2 JAN	0900	397	0.	
1 JAN	0150	23	4.	*	1 JAN	1215	148	4479.	*	1 JAN	2240	273	28.	*	2 JAN	0905	398	0.	
1 JAN	0155	24	5.	*	1 JAN	1220	149	4458.	*	1 JAN	2245	274	27.	*	2 JAN	0910	399	0.	
1 JAN	0200	25	5.	*	1 JAN	1225	150	4694.	*	1 JAN	2250	275	27.	*	2 JAN	0915	400	0.	
1 JAN	0205	26	5.	*	1 JAN	1230	151	5638.	*	1 JAN	2255	276	27.	*	2 JAN	0920	401	0.	
1 JAN	0210	27	6.	*	1 JAN	1235	152	7191.	*	1 JAN	2300	277	27.	*	2 JAN	0925	402	0.	
1 JAN	0215	28	6.	*	1 JAN	1240	153	8739.	*	1 JAN	2305	278	26.	*	2 JAN	0930	403	0.	
1 JAN	0220	29	7.	*	1 JAN	1245	154	9696.	*	1 JAN	2310	279	26.	*	2 JAN	0935	404	0.	
1 JAN	0225	30	7.	*	1 JAN	1250	155	9995.	*	1 JAN	2315	280	26.	*	2 JAN	0940	405	0.	
1 JAN	0230	31	8.	*	1 JAN	1255	156	9876.	*	1 JAN	2320	281	26.	*	2 JAN	0945	406	0.	
1 JAN	0235	32	8.	*	1 JAN	1300	157	9466.	*	1 JAN	2325	282	26.	*	2 JAN	0950	407	0.	
1 JAN	0240	33	9.	*	1 JAN	1305	158	8850.	*	1 JAN	2330	283	26.	*	2 JAN	0955	408	0.	
1 JAN	0245	34	9.	*	1 JAN	1310	159	8105.	*	1 JAN	2335	284	25.	*	2 JAN	1000	409	0.	
1 JAN	0250	35	10.	*	1 JAN	1315	160	7324.	*	1 JAN	2340	285	25.	*	2 JAN	1005	410	0.	
1 JAN	0255	36	11.	*	1 JAN	1320	161	6631.	*	1 JAN	2345	286	25.	*	2 JAN	1010	411	0.	
1 JAN	0300	37	11.	*	1 JAN	1325	162	6004.	*	1 JAN	2350	287	25.	*	2 JAN	1015	412	0.	
1 JAN	0305	38	12.	*	1 JAN	1330	163	5353.	*	1 JAN	2355	288	25.	*	2 JAN	1020	413	0.	
1 JAN	0310	39	12.	*	1 JAN	1335	164	4768.	*	2 JAN	0000	289	25.	*	2 JAN	1025	414	0.	
1 JAN	0315	40	13.	*	1 JAN	1340	165	4302.	*	2 JAN	0005	290	24.	*	2 JAN	1030	415	0.	
1 JAN	0320	41	13.	*	1 JAN	1345	166	3922.	*	2 JAN	0010	291	24.	*	2 JAN	1035	416	0.	
1 JAN	0325	42	14.	*	1 JAN	1350	167	3534.	*	2 JAN	0015	292	24.	*	2 JAN	1040	417	0.	
1 JAN	0330	43	14.	*	1 JAN	1355	168	3171.	*	2 JAN	0020	293	23.	*	2 JAN	1045	418	0.	
1 JAN	0335	44	15.	*	1 JAN	1400	169	2861.	*	2 JAN	0025	294	23.	*	2 JAN	1050	419	0.	
1 JAN	0340	45	15.	*	1 JAN	1405	170	2620.	*	2 JAN	0030	295	23.	*	2 JAN	1055	420	0.	
1 JAN	0345	46	16.	*	1 JAN	1410	171	2395.	*	2 JAN	0035	296	22.	*	2 JAN	1100	421	0.	
1 JAN	0350	47	16.	*	1 JAN	1415	172	2109.	*	2 JAN	0040	297	22.	*	2 JAN	1105	422	0.	
1 JAN	0355	48	17.	*	1 JAN	1420	173	1723.	*	2 JAN	0045	298	22.	*	2 JAN	1110	423	0.	
1 JAN	0400	49	17.	*	1 JAN	1425	174	1130.	*	2 JAN	0050	299	22.	*	2 JAN	1115	424	0.	
1 JAN	0405	50	18.	*	1 JAN	1430	175	785.	*	2 JAN	0055	300	21.	*	2 JAN	1120	425	0.	
1 JAN	0410	51	18.	*	1 JAN	1435	176	685.	*	2 JAN	0100	301	21.	*	2 JAN	1125	426	0.	
1 JAN	0415	52	18.	*	1 JAN	1440	177	620.	*	2 JAN	0105	302	21.	*	2 JAN	1130	427	0.	
1 JAN	0420	53	19.	*	1 JAN	1445	178	563.	*	2 JAN	0110	303	21.	*	2 JAN	1135	428	0.	
1 JAN	0425	54	19.	*	1 JAN	1450	179	513.	*	2 JAN	0115	304	21.	*	2 JAN	1140	429	0.	
1 JAN	0430	55	20.	*	1 JAN	1455	180	472.	*	2 JAN	0120	305	20.	*	2 JAN	1145	430	0.	
1 JAN	0435	56	20.	*	1 JAN	1500	181	437.	*	2 JAN	0125	306	20.	*	2 JAN	1150	431	0.	
1 JAN	0440	57	20.	*	1 JAN	1505	182	404.	*	2 JAN	0130	307	20.	*	2 JAN	1155	432	0.	
1 JAN	0445	58	21.	*	1 JAN	1510	183	372.	*	2 JAN	0135	308	19.	*	2 JAN	1200	433	0.	
1 JAN	0450	59	21.	*	1 JAN	1515	184	345.	*	2 JAN	0140	309	19.	*	2 JAN	1205	434	0.	
1 JAN	0455	60	21.	*	1 JAN	1520	185	322.	*	2 JAN	0145	310	19.	*	2 JAN	1210	435	0.	
1 JAN	0500	61	21.	*	1 JAN	1525	186	301.	*	2 JAN	0150	311	18.	*	2 JAN	1215	436	0.	
1 JAN	0505	62	22.	*	1 JAN	1530	187	281.	*	2 JAN	0155	312	18.	*	2 JAN	1220	437	0.	
1 JAN	0510	63	22.	*	1 JAN	1535	188	262.	*	2 JAN	0200	313	17.	*	2 JAN	1225	438	0.	
1 JAN	0515	64	22.	*	1 JAN	1540	189	244.	*	2 JAN	0205	314	17.	*	2 JAN	1230	439	0.	
1 JAN	0520	65	22.	*	1 JAN	1545	190	228.	*	2 JAN	0210	315	16.	*	2 JAN	1235	440	0.	
1 JAN	0525	66	23.	*	1 JAN	1550	191	214.	*	2 JAN	0215	316	16.	*	2 JAN	1240	441	0.	
1 JAN	0530	67	23.	*	1 JAN	1555	192	202.	*	2 JAN	0220	317	15.	*	2 JAN	1245	442	0.	
1 JAN	0535	68	23.	*	1 JAN	1600	193	193.	*	2 JAN	0225	318	15.	*	2 JAN	1250	443	0.	
1 JAN	0540	69	23.	*	1 JAN	1605	194	184.	*	2 JAN	0230	319	14.	*	2 JAN	1255	444	0.	
1 JAN	0545	70	24.	*	1 JAN	1610	195	175.	*	2 JAN	0235	320	13.	*	2 JAN	1300	445	0.	
1 JAN	0550	71	24.	*	1 JAN	1615	196	166.	*	2 JAN	0240	321	13.	*	2 JAN	1305	446	0.	
1 JAN	0555	72	24.	*	1 JAN	1620	197	158.	*	2 JAN	0245	322	12.	*	2 JAN	1310	447	0.	
1 JAN	0600	73	25.	*	1 JAN	1625	198	150.	*	2 JAN	0250	323	12.	*	2 JAN	1315	448	0.	
1 JAN	0605	74	25.	*	1 JAN	1630	199	143.	*	2 JAN	0255	324	11.	*	2 JAN	1320	449	0.	
1 JAN	0610	75	25.	*	1 JAN	1635	200	136.	*	2 JAN	0300	325	10.	*	2 JAN	1325	450	0.	
1 JAN	0615	76	26.	*	1 JAN	1640	201	130.	*	2 JAN	0305	326	10.	*	2 JAN	1330	451	0.	
1 JAN	0620	77	26.	*	1 JAN	1645	202	125.	*	2 JAN	0310	327	9.	*	2 JAN	1335	452	0.	
1 JAN	0625	78	27.	*	1 JAN	1650	203	120.	*	2 JAN	0315	328	9.	*	2 JAN	1340	453	0.	
1 JAN	0630	79	27.	*	1 JAN	1655	204	115.	*	2 JAN	0320	329	8.	*	2 JAN	1345	454	0.	
1 JAN	0635	80	28.	*	1 JAN	1700	205	112.	*	2 JAN	0325	330	8.	*	2 JAN	1350	455	0.	
1 JAN	0640	81	28.	*	1 JAN	1705	206	108.	*	2 JAN	0330	331	8.	*	2 JAN	1355	456	0.	
1 JAN	0645	82	28.	*	1 JAN	1710	207	105.	*	2 JAN	0335	332	7.	*	2 JAN	1400	457	0.	
1 JAN	0650	83	28.	*	1 JAN	1715	208	103.	*	2 JAN	0340	333	7.	*	2 JAN	1405	458	0.	
1 JAN	0655	84	29.	*	1 JAN	1720	209	101.	*	2 JAN	0345	334	6.	*	2 JAN	1410	459	0.	
1 JAN	0700	85	29.	*	1 JAN	1725	210	99.	*	2 JAN	0350	335	6.	*	2 JAN	1415	460	0.	
1 JAN	0705	86	29.	*	1 JAN	1730	211	97.	*	2 JAN	0355	336	6.	*	2 JAN	1420	461	0.	
1 JAN	0710	87	30.	*	1 JAN	1735	212	95.	*	2 JAN	0400	337	5.	*	2 JAN	1425	462	0.	
1 JAN	0715	88	30.	*	1 JAN	1740	213	93.	*	2 JAN	0405	338	5.	*	2 JAN	1430	463	0.	
1 JAN	0720	89	30.	*	1 JAN	1745	214	91.	*	2 JAN	0410	339	5.	*	2 JAN	1435	464	0.	
1 JAN	0725	90	31.	*	1 JAN	1750	215	89.	*	2 JAN	0415	340	4.	*	2 JAN	1440	465	0.	
1 JAN	0730	91	32.	*	1 JAN	1755	216	87.	*	2 JAN	0420	341	4.	*	2 JAN	1445	466	0.	
1 JAN	0735	92	32.	*	1 JAN	1800	217	85.	*	2 JAN	0425	342	4.	*	2 JAN	1450	467	0.	
1 JAN	0740	93	33.	*	1 JAN	1805	218	83.	*	2 JAN	0430	343	4.	*	2 JAN	1455	468	0.	
1 JAN	0745	94	33.	*	1 JAN	1810	219	81.	*	2 JAN	0435	344	3.	*	2 JAN	1500	469	0.	
1 JAN	0750	95	34.	*	1 JAN	1815	220	79.	*	2 JAN	0440	345	3.	*	2 JAN	1505	470	0.	
1 JAN	0755	96	34.	*	1 JAN	1820	221	77.	*	2 JAN	0445	346	3.	*	2 JAN	1510	471	0.	
1 JAN	0800	97	34.	*	1 JAN	1825	222	75.	*	2 JAN	0450	347	3.	*	2 JAN	1515	472	0.	
1 JAN	0805	98	35.	*	1 JAN	1830	223	74.	*	2 JAN	0455	348	3.	*	2 JAN	1520	473	0.	
1 JAN	0810	99	35.	*	1 JAN	1835	224	72.	*	2 JAN	0500	349	2.	*	2 JAN	1525	474	0.	
1 JAN	0815	100	35.	*	1 JAN	1840	225	70.	*	2 JAN	0505	350	2.	*	2 JAN	1530	475	0.	
1 JAN	0820	101	36.	*	1 JAN	1845	226	68.	*	2 JAN	0510	351	2.	*	2 JAN	1535	476	0.	
1 JAN	0825	102	36.	*	1 JAN	1850	227	67.	*	2 JAN	0515	352	2.	*	2 JAN	1540	477	0.	
1 JAN	0830	103	37.	*	1 JAN	1855	228	65.	*	2 JAN	0520	353	2.	*	2 JAN	1545	478	0.	
1 JAN	0835	104	37.	*	1 JAN	1900	229	63.	*	2 JAN	0525	354	2.	*	2 JAN	1550	479	0.	
1 JAN	0840	105	37.	*	1 JAN	1905	230	62.	*	2 JAN	0530	355	2.	*	2 JAN	1555	480	0.	
1 JAN	0845	106	38.	*	1 JAN	1910	231	60.	*	2 JAN	0535	356	2.	*	2 JAN	1600	481	0.	
1 JAN	0850	107	38.	*	1 JAN	1915	232	58.	*	2 JAN	0540	357	1.	*	2 JAN	1605	482	0.	
1 JAN	0855	108	38.	*	1 JAN	1920	233	57.	*	2 JAN	0545	358	1.	*	2 JAN	1610	483	0.	
1 JAN	0900	109	39.	*	1 JAN	1925	234	55.	*	2 JAN	0550	359	1.	*	2 JAN	1615	484	0.	
1 JAN	0905	110	39.	*	1 JAN	1930	235	54.	*	2 JAN	0555	360	1.	*	2 JAN	1620	485	0.	
1 JAN	0910	111	40.	*	1 JAN	1935	236	52.	*	2 JAN	0600	361	1.	*	2 JAN	1625	486	0.	
1 JAN	0915	112	40.	*	1 JAN	1940	237	51.	*	2 JAN	0605	362	1.	*	2 JAN	1630	487	0.	
1 JAN	0920	113	41.	*	1 JAN	1945	238	49.	*	2 JAN	0610	363	1.	*	2 JAN	1635	488	0.	
1 JAN	0925	114	42.	*	1 JAN	1950	239	48.	*	2 JAN	0615	364	1.	*	2 JAN	1640	489	0.	
1 JAN	0930	115	42.	*	1 JAN	1955	240	47.	*	2 JAN	0620	365	1.	*	2 JAN	1645	490	0.	
1 JAN	0935	116	43.	*	1 JAN	2000	241	46.	*	2 JAN	0625	366	1.	*	2 JAN	1650	491	0.	
1 JAN	0940	117	44.	*	1 JAN	2005	242	45.	*	2 JAN	0630	367	1.	*	2 JAN	1655	492	0.	
1 JAN	0945	118	45.	*	1 JAN	2010	243	44.	*	2 JAN	0635	368	1.	*	2 JAN	1700	493	0.	
1 JAN	0950	119	45.	*	1 JAN	2015	244	43.	*	2 JAN	0640	369	1.	*	2 JAN	1705	494	0.	
1 JAN	0955	120	46.	*	1 JAN	2020	245	42.	*	2 JAN	0645	370	1.	*	2 JAN	1710	495	0.	
1 JAN	1000	121	47.	*	1 JAN	2025	246	41.	*	2 JAN	0650	371	1.	*	2 JAN	1715	496	0.	
1 JAN	1005	122	48.	*	1 JAN	2030	247	41.	*	2 JAN	0655	372	1.	*	2 JAN	1720	497	0.	
1 JAN	1010	123	49.	*	1 JAN	2035	248	40.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.	

1 JAN 1015	124	50.	*	1 JAN 2040	249	40.	*	2 JAN 0705	374	0.	*	2 JAN 1730	499	0.			
1 JAN 1020	125	51.	*	1 JAN 2045	250	39.	*	2 JAN 0710	375	0.	*	2 JAN 1735	500	0.			

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)				
		(CFS)			
9995.	12.83	2400.	627.	363.	363.
		(INCHES) 1.667	1.743	1.747	1.747
		(AC-FT) 1190.	1244.	1246.	1246.

CUMULATIVE AREA = 13.38 SQ MI

HYDROGRAPH AT C010
TRANSPOSITION AREA 30.0 SQ MI

DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW	*	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	*	1 JAN 1025	126	50.	*	1 JAN 2050	251	33.	*	2 JAN 0715	376	0.
1 JAN 0005	2	0.	*	1 JAN 1030	127	51.	*	1 JAN 2055	252	32.	*	2 JAN 0720	377	0.
1 JAN 0010	3	0.	*	1 JAN 1035	128	52.	*	1 JAN 2100	253	32.	*	2 JAN 0725	378	0.
1 JAN 0015	4	0.	*	1 JAN 1040	129	54.	*	1 JAN 2105	254	31.	*	2 JAN 0730	379	0.
1 JAN 0020	5	1.	*	1 JAN 1045	130	56.	*	1 JAN 2110	255	31.	*	2 JAN 0735	380	0.
1 JAN 0025	6	1.	*	1 JAN 1050	131	58.	*	1 JAN 2115	256	30.	*	2 JAN 0740	381	0.
1 JAN 0030	7	1.	*	1 JAN 1055	132	62.	*	1 JAN 2120	257	30.	*	2 JAN 0745	382	0.
1 JAN 0035	8	1.	*	1 JAN 1100	133	69.	*	1 JAN 2125	258	30.	*	2 JAN 0750	383	0.
1 JAN 0040	9	2.	*	1 JAN 1105	134	77.	*	1 JAN 2130	259	29.	*	2 JAN 0755	384	0.
1 JAN 0045	10	2.	*	1 JAN 1110	135	87.	*	1 JAN 2135	260	29.	*	2 JAN 0800	385	0.
1 JAN 0050	11	2.	*	1 JAN 1115	136	99.	*	1 JAN 2140	261	29.	*	2 JAN 0805	386	0.
1 JAN 0055	12	2.	*	1 JAN 1120	137	113.	*	1 JAN 2145	262	29.	*	2 JAN 0810	387	0.
1 JAN 0100	13	2.	*	1 JAN 1125	138	129.	*	1 JAN 2150	263	29.	*	2 JAN 0815	388	0.
1 JAN 0105	14	2.	*	1 JAN 1130	139	149.	*	1 JAN 2155	264	28.	*	2 JAN 0820	389	0.
1 JAN 0110	15	2.	*	1 JAN 1135	140	196.	*	1 JAN 2200	265	28.	*	2 JAN 0825	390	0.
1 JAN 0115	16	3.	*	1 JAN 1140	141	313.	*	1 JAN 2205	266	28.	*	2 JAN 0830	391	0.
1 JAN 0120	17	3.	*	1 JAN 1145	142	519.	*	1 JAN 2210	267	28.	*	2 JAN 0835	392	0.
1 JAN 0125	18	3.	*	1 JAN 1150	143	860.	*	1 JAN 2215	268	27.	*	2 JAN 0840	393	0.
1 JAN 0130	19	3.	*	1 JAN 1155	144	1380.	*	1 JAN 2220	269	27.	*	2 JAN 0845	394	0.
1 JAN 0135	20	3.	*	1 JAN 1200	145	2191.	*	1 JAN 2225	270	27.	*	2 JAN 0850	395	0.
1 JAN 0140	21	4.	*	1 JAN 1205	146	3274.	*	1 JAN 2230	271	27.	*	2 JAN 0855	396	0.
1 JAN 0145	22	4.	*	1 JAN 1210	147	4057.	*	1 JAN 2235	272	26.	*	2 JAN 0900	397	0.
1 JAN 0150	23	4.	*	1 JAN 1215	148	4275.	*	1 JAN 2240	273	26.	*	2 JAN 0905	398	0.
1 JAN 0155	24	4.	*	1 JAN 1220	149	4258.	*	1 JAN 2245	274	26.	*	2 JAN 0910	399	0.
1 JAN 0200	25	5.	*	1 JAN 1225	150	4422.	*	1 JAN 2250	275	26.	*	2 JAN 0915	400	0.
1 JAN 0205	26	5.	*	1 JAN 1230	151	5148.	*	1 JAN 2255	276	26.	*	2 JAN 0920	401	0.
1 JAN 0210	27	6.	*	1 JAN 1235	152	6459.	*	1 JAN 2300	277	25.	*	2 JAN 0925	402	0.
1 JAN 0215	28	6.	*	1 JAN 1240	153	7939.	*	1 JAN 2305	278	25.	*	2 JAN 0930	403	0.
1 JAN 0220	29	6.	*	1 JAN 1245	154	9003.	*	1 JAN 2310	279	25.	*	2 JAN 0935	404	0.
1 JAN 0225	30	7.	*	1 JAN 1250	155	9354.	*	1 JAN 2315	280	25.	*	2 JAN 0940	405	0.
1 JAN 0230	31	7.	*	1 JAN 1255	156	9276.	*	1 JAN 2320	281	25.	*	2 JAN 0945	406	0.
1 JAN 0235	32	8.	*	1 JAN 1300	157	8909.	*	1 JAN 2325	282	25.	*	2 JAN 0950	407	0.
1 JAN 0240	33	9.	*	1 JAN 1305	158	8335.	*	1 JAN 2330	283	24.	*	2 JAN 0955	408	0.
1 JAN 0245	34	9.	*	1 JAN 1310	159	7646.	*	1 JAN 2335	284	24.	*	2 JAN 1000	409	0.
1 JAN 0250	35	10.	*	1 JAN 1315	160	6941.	*	1 JAN 2340	285	24.	*	2 JAN 1005	410	0.
1 JAN 0255	36	10.	*	1 JAN 1320	161	6333.	*	1 JAN 2345	286	24.	*	2 JAN 1010	411	0.
1 JAN 0300	37	11.	*	1 JAN 1325	162	5700.	*	1 JAN 2350	287	24.	*	2 JAN 1015	412	0.
1 JAN 0305	38	11.	*	1 JAN 1330	163	5076.	*	1 JAN 2355	288	24.	*	2 JAN 1020	413	0.
1 JAN 0310	39	12.	*	1 JAN 1335	164	4544.	*	2 JAN 0000	289	24.	*	2 JAN 1025	414	0.
1 JAN 0315	40	12.	*	1 JAN 1340	165	4149.	*	2 JAN 0005	290	23.	*	2 JAN 1030	415	0.
1 JAN 0320	41	13.	*	1 JAN 1345	166	3766.	*	2 JAN 0010	291	23.	*	2 JAN 1035	416	0.
1 JAN 0325	42	13.	*	1 JAN 1350	167	3386.	*	2 JAN 0015	292	23.	*	2 JAN 1040	417	0.
1 JAN 0330	43	14.	*	1 JAN 1355	168	3043.	*	2 JAN 0020	293	22.	*	2 JAN 1045	418	0.
1 JAN 0335	44	14.	*	1 JAN 1400	169	2751.	*	2 JAN 0025	294	22.	*	2 JAN 1050	419	0.
1 JAN 0340	45	15.	*	1 JAN 1405	170	2535.	*	2 JAN 0030	295	22.	*	2 JAN 1055	420	0.
1 JAN 0345	46	15.	*	1 JAN 1410	171	2289.	*	2 JAN 0035	296	21.	*	2 JAN 1100	421	0.
1 JAN 0350	47	15.	*	1 JAN 1415	172	1967.	*	2 JAN 0040	297	21.	*	2 JAN 1105	422	0.
1 JAN 0355	48	16.	*	1 JAN 1420	173	1514.	*	2 JAN 0045	298	21.	*	2 JAN 1110	423	0.
1 JAN 0400	49	16.	*	1 JAN 1425	174	913.	*	2 JAN 0050	299	21.	*	2 JAN 1115	424	0.
1 JAN 0405	50	17.	*	1 JAN 1430	175	727.	*	2 JAN 0055	300	21.	*	2 JAN 1120	425	0.
1 JAN 0410	51	17.	*	1 JAN 1435	176	645.	*	2 JAN 0100	301	20.	*	2 JAN 1125	426	0.
1 JAN 0415	52	18.	*	1 JAN 1440	177	585.	*	2 JAN 0105	302	20.	*	2 JAN 1130	427	0.
1 JAN 0420	53	18.	*	1 JAN 1445	178	531.	*	2 JAN 0110	303	20.	*	2 JAN 1135	428	0.
1 JAN 0425	54	18.	*	1 JAN 1450	179	484.	*	2 JAN 0115	304	20.	*	2 JAN 1140	429	0.
1 JAN 0430	55	19.	*	1 JAN 1455	180	447.	*	2 JAN 0120	305	19.	*	2 JAN 1145	430	0.
1 JAN 0435	56	19.	*	1 JAN 1500	181	412.	*	2 JAN 0125	306	19.	*	2 JAN 1150	431	0.
1 JAN 0440	57	19.	*	1 JAN 1505	182	379.	*	2 JAN 0130	307	19.	*	2 JAN 1155	432	0.
1 JAN 0445	58	20.	*	1 JAN 1510	183	349.	*	2 JAN 0135	308	19.	*	2 JAN 1200	433	0.
1 JAN 0450	59	20.	*	1 JAN 1515	184	324.	*	2 JAN 0140	309	18.	*	2 JAN 1205	434	0.
1 JAN 0455	60	20.	*	1 JAN 1520	185	303.	*	2 JAN 0145	310	18.	*	2 JAN 1210	435	0.
1 JAN 0500	61	20.	*	1 JAN 1525	186	282.	*	2 JAN 0150	311	17.	*	2 JAN 1215	436	0.
1 JAN 0505	62	21.	*	1 JAN 1530	187	262.	*	2 JAN 0155	312	17.	*	2 JAN 1220	437	0.
1 JAN 0510	63	21.	*	1 JAN 1535	188	243.	*	2 JAN 0200	313	17.	*	2 JAN 1225	438	0.
1 JAN 0515	64	21.	*	1 JAN 1540	189	226.	*	2 JAN 0205	314	16.	*	2 JAN 1230	439	0.
1 JAN 0520	65	21.	*	1 JAN 1545	190	211.	*	2 JAN 0210	315	16.	*	2 JAN 1235	440	0.
1 JAN 0525	66	22.	*	1 JAN 1550	191	199.	*	2 JAN 0215	316	15.	*	2 JAN 1240	441	0.
1 JAN 0530	67	22.	*	1 JAN 1555	192	189.	*	2 JAN 0220	317	14.	*	2 JAN 1245	442	0.
1 JAN 0535	68	22.	*	1 JAN 1600	193	180.	*	2 JAN 0225	318	14.	*	2 JAN 1250	443	0.
1 JAN 0540	69	22.	*	1 JAN 1605	194	170.	*	2 JAN 0230	319	13.	*	2 JAN 1255	444	0.
1 JAN 0545	70	23.	*	1 JAN 1610	195	161.	*	2 JAN 0235	320	13.	*	2 JAN 1300	445	0.
1 JAN 0550	71	23.	*	1 JAN 1615	196	152.	*	2 JAN 0240	321	12.	*	2 JAN 1305	446	0.
1 JAN 0555	72	23.	*	1 JAN 1620	197	144.	*	2 JAN 0245	322	12.	*	2 JAN 1310	447	0.
1 JAN 0600	73	23.	*	1 JAN 1625	198	137.	*	2 JAN 0250	323	11.	*	2 JAN 1315	448	0.
1 JAN 0605	74	24.	*	1 JAN 1630	199	130.	*	2 JAN 0255	324	11.	*	2 JAN 1320	449	0.
1 JAN 0610	75	24.	*	1 JAN 1635	200	124.	*	2 JAN 0300	325	10.	*	2 JAN 1325	450	0.
1 JAN 0615	76	24.	*	1 JAN 1640	201	118.	*	2 JAN 0305	326	10.	*	2 JAN 1330	451	0.
1 JAN 0620	77	25.	*	1 JAN 1645	202	113.	*	2 JAN 0310	327	9.	*	2 JAN 1335	452	0.
1 JAN 0625	78	25.	*	1 JAN 1650	203	109.	*	2 JAN 0315	328	9.	*	2 JAN 1340	453	0.
1 JAN 0630	79	26.	*	1 JAN 1655	204	105.	*	2 JAN 0320	329	8.	*	2 JAN 1345	454	0.
1 JAN 0635	80	26.	*	1 JAN 1700	205	102.	*	2 JAN 0325	330	8.	*	2 JAN 1350	455	0.
1 JAN 0640	81	26.	*	1 JAN 1705	206	100.	*	2 JAN 0330	331	7.	*	2 JAN 1355	456	0.

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0645	82	27.	1 JAN 1710	207	97.	2 JAN 0335	332	7.	2 JAN 1400	457	0.
1 JAN 0650	83	27.	1 JAN 1715	208	95.	2 JAN 0340	333	6.	2 JAN 1405	458	0.
1 JAN 0655	84	27.	1 JAN 1720	209	93.	2 JAN 0345	334	6.	2 JAN 1410	459	0.
1 JAN 0700	85	28.	1 JAN 1725	210	90.	2 JAN 0350	335	6.	2 JAN 1415	460	0.
1 JAN 0705	86	28.	1 JAN 1730	211	88.	2 JAN 0355	336	5.	2 JAN 1420	461	0.
1 JAN 0710	87	28.	1 JAN 1735	212	86.	2 JAN 0400	337	5.	2 JAN 1425	462	0.
1 JAN 0715	88	28.	1 JAN 1740	213	84.	2 JAN 0405	338	5.	2 JAN 1430	463	0.
1 JAN 0720	89	29.	1 JAN 1745	214	82.	2 JAN 0410	339	4.	2 JAN 1435	464	0.
1 JAN 0725	90	29.	1 JAN 1750	215	81.	2 JAN 0415	340	4.	2 JAN 1440	465	0.
1 JAN 0730	91	29.	1 JAN 1755	216	79.	2 JAN 0420	341	4.	2 JAN 1445	466	0.
1 JAN 0735	92	30.	1 JAN 1800	217	77.	2 JAN 0425	342	4.	2 JAN 1450	467	0.
1 JAN 0740	93	30.	1 JAN 1805	218	75.	2 JAN 0430	343	3.	2 JAN 1455	468	0.
1 JAN 0745	94	31.	1 JAN 1810	219	73.	2 JAN 0435	344	3.	2 JAN 1500	469	0.
1 JAN 0750	95	31.	1 JAN 1815	220	71.	2 JAN 0440	345	3.	2 JAN 1505	470	0.
1 JAN 0755	96	32.	1 JAN 1820	221	69.	2 JAN 0445	346	3.	2 JAN 1510	471	0.
1 JAN 0800	97	33.	1 JAN 1825	222	67.	2 JAN 0450	347	3.	2 JAN 1515	472	0.
1 JAN 0805	98	33.	1 JAN 1830	223	66.	2 JAN 0455	348	2.	2 JAN 1520	473	0.
1 JAN 0810	99	33.	1 JAN 1835	224	64.	2 JAN 0500	349	2.	2 JAN 1525	474	0.
1 JAN 0815	100	34.	1 JAN 1840	225	63.	2 JAN 0505	350	2.	2 JAN 1530	475	0.
1 JAN 0820	101	34.	1 JAN 1845	226	61.	2 JAN 0510	351	2.	2 JAN 1535	476	0.
1 JAN 0825	102	35.	1 JAN 1850	227	60.	2 JAN 0515	352	2.	2 JAN 1540	477	0.
1 JAN 0830	103	35.	1 JAN 1855	228	58.	2 JAN 0520	353	2.	2 JAN 1545	478	0.
1 JAN 0835	104	35.	1 JAN 1900	229	57.	2 JAN 0525	354	2.	2 JAN 1550	479	0.
1 JAN 0840	105	36.	1 JAN 1905	230	55.	2 JAN 0530	355	2.	2 JAN 1555	480	0.
1 JAN 0845	106	36.	1 JAN 1910	231	53.	2 JAN 0535	356	1.	2 JAN 1600	481	0.
1 JAN 0850	107	36.	1 JAN 1915	232	52.	2 JAN 0540	357	1.	2 JAN 1605	482	0.
1 JAN 0855	108	37.	1 JAN 1920	233	50.	2 JAN 0545	358	1.	2 JAN 1610	483	0.
1 JAN 0900	109	37.	1 JAN 1925	234	49.	2 JAN 0550	359	1.	2 JAN 1615	484	0.
1 JAN 0905	110	37.	1 JAN 1930	235	47.	2 JAN 0555	360	1.	2 JAN 1620	485	0.
1 JAN 0910	111	38.	1 JAN 1935	236	46.	2 JAN 0600	361	1.	2 JAN 1625	486	0.
1 JAN 0915	112	38.	1 JAN 1940	237	45.	2 JAN 0605	362	1.	2 JAN 1630	487	0.
1 JAN 0920	113	39.	1 JAN 1945	238	43.	2 JAN 0610	363	1.	2 JAN 1635	488	0.
1 JAN 0925	114	40.	1 JAN 1950	239	42.	2 JAN 0615	364	1.	2 JAN 1640	489	0.
1 JAN 0930	115	40.	1 JAN 1955	240	41.	2 JAN 0620	365	1.	2 JAN 1645	490	0.
1 JAN 0935	116	41.	1 JAN 2000	241	40.	2 JAN 0625	366	1.	2 JAN 1650	491	0.
1 JAN 0940	117	42.	1 JAN 2005	242	39.	2 JAN 0630	367	1.	2 JAN 1655	492	0.
1 JAN 0945	118	43.	1 JAN 2010	243	38.	2 JAN 0635	368	1.	2 JAN 1700	493	0.
1 JAN 0950	119	44.	1 JAN 2015	244	37.	2 JAN 0640	369	1.	2 JAN 1705	494	0.
1 JAN 0955	120	44.	1 JAN 2020	245	36.	2 JAN 0645	370	1.	2 JAN 1710	495	0.
1 JAN 1000	121	45.	1 JAN 2025	246	36.	2 JAN 0650	371	1.	2 JAN 1715	496	0.
1 JAN 1005	122	46.	1 JAN 2030	247	35.	2 JAN 0655	372	0.	2 JAN 1720	497	0.
1 JAN 1010	123	47.	1 JAN 2035	248	34.	2 JAN 0700	373	0.	2 JAN 1725	498	0.
1 JAN 1015	124	48.	1 JAN 2040	249	34.	2 JAN 0705	374	0.	2 JAN 1730	499	0.
1 JAN 1020	125	49.	1 JAN 2045	250	33.	2 JAN 0710	375	0.	2 JAN 1735	500	0.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)				
		(CFS)			
+ 9354.	12.83	2249.	588.	340.	340.
		(INCHES) 1.563	1.633	1.636	1.636
		(AC-FT) 1115.	1165.	1168.	1168.

CUMULATIVE AREA = 13.38 SQ MI

HYDROGRAPH AT C010
TRANSPOSITION AREA 60.0 SQ MI

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	47.	1 JAN 2050	251	30.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	48.	1 JAN 2055	252	30.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	50.	1 JAN 2100	253	29.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	51.	1 JAN 2105	254	29.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	52.	1 JAN 2110	255	29.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	54.	1 JAN 2115	256	29.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	57.	1 JAN 2120	257	29.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	61.	1 JAN 2125	258	28.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	67.	1 JAN 2130	259	28.	2 JAN 0755	384	0.
1 JAN 0045	10	2.	1 JAN 1110	135	75.	1 JAN 2135	260	28.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	85.	1 JAN 2140	261	28.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	96.	1 JAN 2145	262	27.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	111.	1 JAN 2150	263	27.	2 JAN 0815	388	0.
1 JAN 0105	14	2.	1 JAN 1130	139	128.	1 JAN 2155	264	27.	2 JAN 0820	389	0.
1 JAN 0110	15	2.	1 JAN 1135	140	169.	1 JAN 2200	265	27.	2 JAN 0825	390	0.
1 JAN 0115	16	2.	1 JAN 1140	141	274.	1 JAN 2205	266	26.	2 JAN 0830	391	0.
1 JAN 0120	17	3.	1 JAN 1145	142	454.	1 JAN 2210	267	26.	2 JAN 0835	392	0.
1 JAN 0125	18	3.	1 JAN 1150	143	773.	1 JAN 2215	268	26.	2 JAN 0840	393	0.
1 JAN 0130	19	3.	1 JAN 1155	144	1252.	1 JAN 2220	269	26.	2 JAN 0845	394	0.
1 JAN 0135	20	3.	1 JAN 1200	145	1999.	1 JAN 2225	270	25.	2 JAN 0850	395	0.
1 JAN 0140	21	3.	1 JAN 1205	146	3027.	1 JAN 2230	271	25.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	3825.	1 JAN 2235	272	25.	2 JAN 0900	397	0.
1 JAN 0150	23	4.	1 JAN 1215	148	4084.	1 JAN 2240	273	25.	2 JAN 0905	398	0.
1 JAN 0155	24	4.	1 JAN 1220	149	4059.	1 JAN 2245	274	25.	2 JAN 0910	399	0.
1 JAN 0200	25	5.	1 JAN 1225	150	4154.	1 JAN 2250	275	25.	2 JAN 0915	400	0.
1 JAN 0205	26	5.	1 JAN 1230	151	4665.	1 JAN 2255	276	24.	2 JAN 0920	401	0.
1 JAN 0210	27	5.	1 JAN 1235	152	5758.	1 JAN 2300	277	24.	2 JAN 0925	402	0.
1 JAN 0215	28	6.	1 JAN 1240	153	7222.	1 JAN 2305	278	24.	2 JAN 0930	403	0.
1 JAN 0220	29	6.	1 JAN 1245	154	8254.	1 JAN 2310	279	24.	2 JAN 0935	404	0.
1 JAN 0225	30	7.	1 JAN 1250	155	8703.	1 JAN 2315	280	24.	2 JAN 0940	405	0.
1 JAN 0230	31	7.	1 JAN 1255	156	8673.	1 JAN 2320	281	24.	2 JAN 0945	406	0.
1 JAN 0235	32	8.	1 JAN 1300	157	8347.	1 JAN 2325	282	23.	2 JAN 0950	407	0.
1 JAN 0240	33	8.	1 JAN 1305	158	7821.	1 JAN 2330	283	23.	2 JAN 0955	408	0.
1 JAN 0245	34	9.	1 JAN 1310	159	7201.	1 JAN 2335	284	23.	2 JAN 1000	409	0.
1 JAN 0250	35	9.	1 JAN 1315	160	6598.	1 JAN 2340	285	23.	2 JAN 1005	410	0.
1 JAN 0255	36	10.	1 JAN 1320	161	6012.	1 JAN 2345	286	23.	2 JAN 1010	411	0.
1 JAN 0300	37	10.	1 JAN 1325	162	5399.	1 JAN 2350	287	23.	2 JAN 1015	412	0.
1 JAN 0305	38	11.	1 JAN 1330	163	4825.	1 JAN 2355	288	23.	2 JAN 1020	413	0.
1 JAN 0310	39	11.	1 JAN 1335	164	4356.	2 JAN 0000	289	22.	2 JAN 1025	414	0.

1 JAN	0315	40	12.	*	1 JAN	1340	165	3979.	*	2 JAN	0005	290	22.	*	2 JAN	1030	415	0.
1 JAN	0320	41	12.	*	1 JAN	1345	166	3596.	*	2 JAN	0010	291	22.	*	2 JAN	1035	416	0.
1 JAN	0325	42	13.	*	1 JAN	1350	167	3229.	*	2 JAN	0015	292	22.	*	2 JAN	1040	417	0.
1 JAN	0330	43	13.	*	1 JAN	1355	168	2911.	*	2 JAN	0020	293	21.	*	2 JAN	1045	418	0.
1 JAN	0335	44	13.	*	1 JAN	1400	169	2653.	*	2 JAN	0025	294	21.	*	2 JAN	1050	419	0.
1 JAN	0340	45	14.	*	1 JAN	1405	170	2436.	*	2 JAN	0030	295	21.	*	2 JAN	1055	420	0.
1 JAN	0345	46	14.	*	1 JAN	1410	171	2163.	*	2 JAN	0035	296	20.	*	2 JAN	1100	421	0.
1 JAN	0350	47	15.	*	1 JAN	1415	172	1800.	*	2 JAN	0040	297	20.	*	2 JAN	1105	422	0.
1 JAN	0355	48	15.	*	1 JAN	1420	173	1241.	*	2 JAN	0045	298	20.	*	2 JAN	1110	423	0.
1 JAN	0400	49	16.	*	1 JAN	1425	174	786.	*	2 JAN	0050	299	20.	*	2 JAN	1115	424	0.
1 JAN	0405	50	16.	*	1 JAN	1430	175	676.	*	2 JAN	0055	300	20.	*	2 JAN	1120	425	0.
1 JAN	0410	51	16.	*	1 JAN	1435	176	608.	*	2 JAN	0100	301	19.	*	2 JAN	1125	426	0.
1 JAN	0415	52	17.	*	1 JAN	1440	177	550.	*	2 JAN	0105	302	19.	*	2 JAN	1130	427	0.
1 JAN	0420	53	17.	*	1 JAN	1445	178	499.	*	2 JAN	0110	303	19.	*	2 JAN	1135	428	0.
1 JAN	0425	54	18.	*	1 JAN	1450	179	458.	*	2 JAN	0115	304	19.	*	2 JAN	1140	429	0.
1 JAN	0430	55	18.	*	1 JAN	1455	180	421.	*	2 JAN	0120	305	19.	*	2 JAN	1145	430	0.
1 JAN	0435	56	18.	*	1 JAN	1500	181	386.	*	2 JAN	0125	306	18.	*	2 JAN	1150	431	0.
1 JAN	0440	57	18.	*	1 JAN	1505	182	355.	*	2 JAN	0130	307	18.	*	2 JAN	1155	432	0.
1 JAN	0445	58	19.	*	1 JAN	1510	183	327.	*	2 JAN	0135	308	18.	*	2 JAN	1200	433	0.
1 JAN	0450	59	19.	*	1 JAN	1515	184	305.	*	2 JAN	0140	309	17.	*	2 JAN	1205	434	0.
1 JAN	0455	60	19.	*	1 JAN	1520	185	284.	*	2 JAN	0145	310	17.	*	2 JAN	1210	435	0.
1 JAN	0500	61	19.	*	1 JAN	1525	186	262.	*	2 JAN	0150	311	17.	*	2 JAN	1215	436	0.
1 JAN	0505	62	20.	*	1 JAN	1530	187	242.	*	2 JAN	0155	312	16.	*	2 JAN	1220	437	0.
1 JAN	0510	63	20.	*	1 JAN	1535	188	224.	*	2 JAN	0200	313	16.	*	2 JAN	1225	438	0.
1 JAN	0515	64	20.	*	1 JAN	1540	189	209.	*	2 JAN	0205	314	15.	*	2 JAN	1230	439	0.
1 JAN	0520	65	20.	*	1 JAN	1545	190	196.	*	2 JAN	0210	315	15.	*	2 JAN	1235	440	0.
1 JAN	0525	66	21.	*	1 JAN	1550	191	186.	*	2 JAN	0215	316	14.	*	2 JAN	1240	441	0.
1 JAN	0530	67	21.	*	1 JAN	1555	192	176.	*	2 JAN	0220	317	14.	*	2 JAN	1245	442	0.
1 JAN	0535	68	21.	*	1 JAN	1600	193	166.	*	2 JAN	0225	318	13.	*	2 JAN	1250	443	0.
1 JAN	0540	69	21.	*	1 JAN	1605	194	156.	*	2 JAN	0230	319	13.	*	2 JAN	1255	444	0.
1 JAN	0545	70	22.	*	1 JAN	1610	195	147.	*	2 JAN	0235	320	12.	*	2 JAN	1300	445	0.
1 JAN	0550	71	22.	*	1 JAN	1615	196	139.	*	2 JAN	0240	321	12.	*	2 JAN	1305	446	0.
1 JAN	0555	72	22.	*	1 JAN	1620	197	131.	*	2 JAN	0245	322	11.	*	2 JAN	1310	447	0.
1 JAN	0600	73	22.	*	1 JAN	1625	198	124.	*	2 JAN	0250	323	11.	*	2 JAN	1315	448	0.
1 JAN	0605	74	23.	*	1 JAN	1630	199	117.	*	2 JAN	0255	324	10.	*	2 JAN	1320	449	0.
1 JAN	0610	75	23.	*	1 JAN	1635	200	112.	*	2 JAN	0300	325	10.	*	2 JAN	1325	450	0.
1 JAN	0615	76	23.	*	1 JAN	1640	201	107.	*	2 JAN	0305	326	9.	*	2 JAN	1330	451	0.
1 JAN	0620	77	24.	*	1 JAN	1645	202	103.	*	2 JAN	0310	327	9.	*	2 JAN	1335	452	0.
1 JAN	0625	78	24.	*	1 JAN	1650	203	99.	*	2 JAN	0315	328	8.	*	2 JAN	1340	453	0.
1 JAN	0630	79	24.	*	1 JAN	1655	204	97.	*	2 JAN	0320	329	8.	*	2 JAN	1345	454	0.
1 JAN	0635	80	25.	*	1 JAN	1700	205	94.	*	2 JAN	0325	330	7.	*	2 JAN	1350	455	0.
1 JAN	0640	81	25.	*	1 JAN	1705	206	91.	*	2 JAN	0330	331	7.	*	2 JAN	1355	456	0.
1 JAN	0645	82	25.	*	1 JAN	1710	207	89.	*	2 JAN	0335	332	6.	*	2 JAN	1400	457	0.
1 JAN	0650	83	25.	*	1 JAN	1715	208	86.	*	2 JAN	0340	333	6.	*	2 JAN	1405	458	0.
1 JAN	0655	84	26.	*	1 JAN	1720	209	84.	*	2 JAN	0345	334	6.	*	2 JAN	1410	459	0.
1 JAN	0700	85	26.	*	1 JAN	1725	210	82.	*	2 JAN	0350	335	5.	*	2 JAN	1415	460	0.
1 JAN	0705	86	26.	*	1 JAN	1730	211	80.	*	2 JAN	0355	336	5.	*	2 JAN	1420	461	0.
1 JAN	0710	87	27.	*	1 JAN	1735	212	78.	*	2 JAN	0400	337	5.	*	2 JAN	1425	462	0.
1 JAN	0715	88	27.	*	1 JAN	1740	213	76.	*	2 JAN	0405	338	5.	*	2 JAN	1430	463	0.
1 JAN	0720	89	27.	*	1 JAN	1745	214	74.	*	2 JAN	0410	339	4.	*	2 JAN	1435	464	0.
1 JAN	0725	90	27.	*	1 JAN	1750	215	72.	*	2 JAN	0415	340	4.	*	2 JAN	1440	465	0.
1 JAN	0730	91	28.	*	1 JAN	1755	216	70.	*	2 JAN	0420	341	4.	*	2 JAN	1445	466	0.
1 JAN	0735	92	28.	*	1 JAN	1800	217	68.	*	2 JAN	0425	342	4.	*	2 JAN	1450	467	0.
1 JAN	0740	93	28.	*	1 JAN	1805	218	66.	*	2 JAN	0430	343	3.	*	2 JAN	1455	468	0.
1 JAN	0745	94	29.	*	1 JAN	1810	219	65.	*	2 JAN	0435	344	3.	*	2 JAN	1500	469	0.
1 JAN	0750	95	29.	*	1 JAN	1815	220	63.	*	2 JAN	0440	345	3.	*	2 JAN	1505	470	0.
1 JAN	0755	96	29.	*	1 JAN	1820	221	61.	*	2 JAN	0445	346	3.	*	2 JAN	1510	471	0.
1 JAN	0800	97	30.	*	1 JAN	1825	222	60.	*	2 JAN	0450	347	3.	*	2 JAN	1515	472	0.
1 JAN	0805	98	30.	*	1 JAN	1830	223	58.	*	2 JAN	0455	348	2.	*	2 JAN	1520	473	0.
1 JAN	0810	99	31.	*	1 JAN	1835	224	57.	*	2 JAN	0500	349	2.	*	2 JAN	1525	474	0.
1 JAN	0815	100	32.	*	1 JAN	1840	225	55.	*	2 JAN	0505	350	2.	*	2 JAN	1530	475	0.
1 JAN	0820	101	32.	*	1 JAN	1845	226	54.	*	2 JAN	0510	351	2.	*	2 JAN	1535	476	0.
1 JAN	0825	102	33.	*	1 JAN	1850	227	53.	*	2 JAN	0515	352	2.	*	2 JAN	1540	477	0.
1 JAN	0830	103	33.	*	1 JAN	1855	228	51.	*	2 JAN	0520	353	2.	*	2 JAN	1545	478	0.
1 JAN	0835	104	34.	*	1 JAN	1900	229	50.	*	2 JAN	0525	354	2.	*	2 JAN	1550	479	0.
1 JAN	0840	105	34.	*	1 JAN	1905	230	49.	*	2 JAN	0530	355	2.	*	2 JAN	1555	480	0.
1 JAN	0845	106	34.	*	1 JAN	1910	231	47.	*	2 JAN	0535	356	1.	*	2 JAN	1600	481	0.
1 JAN	0850	107	35.	*	1 JAN	1915	232	46.	*	2 JAN	0540	357	1.	*	2 JAN	1605	482	0.
1 JAN	0855	108	35.	*	1 JAN	1920	233	45.	*	2 JAN	0545	358	1.	*	2 JAN	1610	483	0.
1 JAN	0900	109	35.	*	1 JAN	1925	234	44.	*	2 JAN	0550	359	1.	*	2 JAN	1615	484	0.
1 JAN	0905	110	36.	*	1 JAN	1930	235	42.	*	2 JAN	0555	360	1.	*	2 JAN	1620	485	0.
1 JAN	0910	111	36.	*	1 JAN	1935	236	41.	*	2 JAN	0600	361	1.	*	2 JAN	1625	486	0.
1 JAN	0915	112	37.	*	1 JAN	1940	237	40.	*	2 JAN	0605	362	1.	*	2 JAN	1630	487	0.
1 JAN	0920	113	37.	*	1 JAN	1945	238	39.	*	2 JAN	0610	363	1.	*	2 JAN	1635	488	0.
1 JAN	0925	114	38.	*	1 JAN	1950	239	38.	*	2 JAN	0615	364	1.	*	2 JAN	1640	489	0.
1 JAN	0930	115	39.	*	1 JAN	1955	240	37.	*	2 JAN	0620	365	1.	*	2 JAN	1645	490	0.
1 JAN	0935	116	39.	*	1 JAN	2000	241	36.	*	2 JAN	0625	366	1.	*	2 JAN	1650	491	0.
1 JAN	0940	117	40.	*	1 JAN	2005	242	35.	*	2 JAN	0630	367	1.	*	2 JAN	1655	492	0.
1 JAN	0945	118	41.	*	1 JAN	2010	243	34.	*	2 JAN	0635	368	1.	*	2 JAN	1700	493	0.
1 JAN	0950	119	42.	*	1 JAN	2015	244	34.	*	2 JAN	0640	369	1.	*	2 JAN	1705	494	0.
1 JAN	0955	120	42.	*	1 JAN	2020	245	33.	*	2 JAN	0645	370	1.	*	2 JAN	1710	495	0.
1 JAN	1000	121	43.	*	1 JAN	2025	246	32.	*	2 JAN	0650	371	1.	*	2 JAN	1715	496	0.
1 JAN	1005	122	44.	*	1 JAN	2030	247	32.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	45.	*	1 JAN	2035	248	31.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	46.	*	1 JAN	2040	249	31.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	46.	*	1 JAN	2045	250	30.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)	(CFS)				
+ 8703.	12.83		2101.	549.	317.	317.
		(INCHES)	1.460	1.525	1.528	1.528
		(AC-FT)	1042.	1088.	1090.	1090.

CUMULATIVE AREA = 13.38 SQ MI

****

HYDROGRAPH AT C010
TRANSPOSITION AREA 90.0 SQ MI

****

DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW	DA MON HRMN	ORD	FLOW
1 JAN 0000	1	0.	1 JAN 1025	126	47.	1 JAN 2050	251	29.	2 JAN 0715	376	0.
1 JAN 0005	2	0.	1 JAN 1030	127	48.	1 JAN 2055	252	29.	2 JAN 0720	377	0.
1 JAN 0010	3	0.	1 JAN 1035	128	49.	1 JAN 2100	253	29.	2 JAN 0725	378	0.
1 JAN 0015	4	0.	1 JAN 1040	129	50.	1 JAN 2105	254	29.	2 JAN 0730	379	0.
1 JAN 0020	5	1.	1 JAN 1045	130	51.	1 JAN 2110	255	29.	2 JAN 0735	380	0.
1 JAN 0025	6	1.	1 JAN 1050	131	53.	1 JAN 2115	256	29.	2 JAN 0740	381	0.
1 JAN 0030	7	1.	1 JAN 1055	132	56.	1 JAN 2120	257	28.	2 JAN 0745	382	0.
1 JAN 0035	8	1.	1 JAN 1100	133	59.	1 JAN 2125	258	28.	2 JAN 0750	383	0.
1 JAN 0040	9	2.	1 JAN 1105	134	64.	1 JAN 2130	259	28.	2 JAN 0755	384	0.
1 JAN 0045	10	2.	1 JAN 1110	135	71.	1 JAN 2135	260	28.	2 JAN 0800	385	0.
1 JAN 0050	11	2.	1 JAN 1115	136	80.	1 JAN 2140	261	27.	2 JAN 0805	386	0.
1 JAN 0055	12	2.	1 JAN 1120	137	91.	1 JAN 2145	262	27.	2 JAN 0810	387	0.
1 JAN 0100	13	2.	1 JAN 1125	138	105.	1 JAN 2150	263	27.	2 JAN 0815	388	0.
1 JAN 0105	14	2.	1 JAN 1130	139	121.	1 JAN 2155	264	27.	2 JAN 0820	389	0.
1 JAN 0110	15	2.	1 JAN 1135	140	160.	1 JAN 2200	265	26.	2 JAN 0825	390	0.
1 JAN 0115	16	2.	1 JAN 1140	141	262.	1 JAN 2205	266	26.	2 JAN 0830	391	0.
1 JAN 0120	17	3.	1 JAN 1145	142	435.	1 JAN 2210	267	26.	2 JAN 0835	392	0.
1 JAN 0125	18	3.	1 JAN 1150	143	742.	1 JAN 2215	268	26.	2 JAN 0840	393	0.
1 JAN 0130	19	3.	1 JAN 1155	144	1208.	1 JAN 2220	269	25.	2 JAN 0845	394	0.
1 JAN 0135	20	3.	1 JAN 1200	145	1932.	1 JAN 2225	270	25.	2 JAN 0850	395	0.
1 JAN 0140	21	3.	1 JAN 1205	146	2937.	1 JAN 2230	271	25.	2 JAN 0855	396	0.
1 JAN 0145	22	4.	1 JAN 1210	147	3738.	1 JAN 2235	272	25.	2 JAN 0900	397	0.
1 JAN 0150	23	4.	1 JAN 1215	148	4015.	1 JAN 2240	273	25.	2 JAN 0905	398	0.
1 JAN 0155	24	4.	1 JAN 1220	149	3988.	1 JAN 2245	274	24.	2 JAN 0910	399	0.
1 JAN 0200	25	5.	1 JAN 1225	150	4060.	1 JAN 2250	275	24.	2 JAN 0915	400	0.
1 JAN 0205	26	5.	1 JAN 1230	151	4501.	1 JAN 2255	276	24.	2 JAN 0920	401	0.
1 JAN 0210	27	5.	1 JAN 1235	152	5557.	1 JAN 2300	277	24.	2 JAN 0925	402	0.
1 JAN 0215	28	6.	1 JAN 1240	153	6951.	1 JAN 2305	278	24.	2 JAN 0930	403	0.
1 JAN 0220	29	6.	1 JAN 1245	154	7969.	1 JAN 2310	279	24.	2 JAN 0935	404	0.
1 JAN 0225	30	7.	1 JAN 1250	155	8465.	1 JAN 2315	280	23.	2 JAN 0940	405	0.
1 JAN 0230	31	7.	1 JAN 1255	156	8456.	1 JAN 2320	281	23.	2 JAN 0945	406	0.
1 JAN 0235	32	7.	1 JAN 1300	157	8148.	1 JAN 2325	282	23.	2 JAN 0950	407	0.
1 JAN 0240	33	8.	1 JAN 1305	158	7642.	1 JAN 2330	283	23.	2 JAN 0955	408	0.
1 JAN 0245	34	8.	1 JAN 1310	159	7051.	1 JAN 2335	284	23.	2 JAN 1000	409	0.
1 JAN 0250	35	9.	1 JAN 1315	160	6483.	1 JAN 2340	285	23.	2 JAN 1005	410	0.
1 JAN 0255	36	9.	1 JAN 1320	161	5894.	1 JAN 2345	286	23.	2 JAN 1010	411	0.
1 JAN 0300	37	10.	1 JAN 1325	162	5291.	1 JAN 2350	287	22.	2 JAN 1015	412	0.
1 JAN 0305	38	10.	1 JAN 1330	163	4737.	1 JAN 2355	288	22.	2 JAN 1020	413	0.
1 JAN 0310	39	11.	1 JAN 1335	164	4295.	2 JAN 0000	289	22.	2 JAN 1025	414	0.
1 JAN 0315	40	11.	1 JAN 1340	165	3917.	2 JAN 0005	290	22.	2 JAN 1030	415	0.
1 JAN 0320	41	12.	1 JAN 1345	166	3536.	2 JAN 0010	291	22.	2 JAN 1035	416	0.
1 JAN 0325	42	12.	1 JAN 1350	167	3176.	2 JAN 0015	292	21.	2 JAN 1040	417	0.
1 JAN 0330	43	13.	1 JAN 1355	168	2865.	2 JAN 0020	293	21.	2 JAN 1045	418	0.
1 JAN 0335	44	13.	1 JAN 1400	169	2621.	2 JAN 0025	294	21.	2 JAN 1050	419	0.
1 JAN 0340	45	14.	1 JAN 1405	170	2398.	2 JAN 0030	295	20.	2 JAN 1055	420	0.
1 JAN 0345	46	14.	1 JAN 1410	171	2114.	2 JAN 0035	296	20.	2 JAN 1100	421	0.
1 JAN 0350	47	14.	1 JAN 1415	172	1733.	2 JAN 0040	297	20.	2 JAN 1105	422	0.
1 JAN 0355	48	15.	1 JAN 1420	173	1130.	2 JAN 0045	298	20.	2 JAN 1110	423	0.
1 JAN 0400	49	15.	1 JAN 1425	174	764.	2 JAN 0050	299	19.	2 JAN 1115	424	0.
1 JAN 0405	50	16.	1 JAN 1430	175	661.	2 JAN 0055	300	19.	2 JAN 1120	425	0.
1 JAN 0410	51	16.	1 JAN 1435	176	596.	2 JAN 0100	301	19.	2 JAN 1125	426	0.
1 JAN 0415	52	17.	1 JAN 1440	177	538.	2 JAN 0105	302	19.	2 JAN 1130	427	0.
1 JAN 0420	53	17.	1 JAN 1445	178	489.	2 JAN 0110	303	19.	2 JAN 1135	428	0.
1 JAN 0425	54	17.	1 JAN 1450	179	449.	2 JAN 0115	304	18.	2 JAN 1140	429	0.
1 JAN 0430	55	18.	1 JAN 1455	180	412.	2 JAN 0120	305	18.	2 JAN 1145	430	0.
1 JAN 0435	56	18.	1 JAN 1500	181	377.	2 JAN 0125	306	18.	2 JAN 1150	431	0.
1 JAN 0440	57	18.	1 JAN 1505	182	346.	2 JAN 0130	307	18.	2 JAN 1155	432	0.
1 JAN 0445	58	18.	1 JAN 1510	183	320.	2 JAN 0135	308	17.	2 JAN 1200	433	0.
1 JAN 0450	59	19.	1 JAN 1515	184	298.	2 JAN 0140	309	17.	2 JAN 1205	434	0.
1 JAN 0455	60	19.	1 JAN 1520	185	276.	2 JAN 0145	310	17.	2 JAN 1210	435	0.
1 JAN 0500	61	19.	1 JAN 1525	186	255.	2 JAN 0150	311	16.	2 JAN 1215	436	0.
1 JAN 0505	62	19.	1 JAN 1530	187	235.	2 JAN 0155	312	16.	2 JAN 1220	437	0.
1 JAN 0510	63	20.	1 JAN 1535	188	218.	2 JAN 0200	313	16.	2 JAN 1225	438	0.
1 JAN 0515	64	20.	1 JAN 1540	189	203.	2 JAN 0205	314	15.	2 JAN 1230	439	0.
1 JAN 0520	65	20.	1 JAN 1545	190	192.	2 JAN 0210	315	15.	2 JAN 1235	440	0.
1 JAN 0525	66	20.	1 JAN 1550	191	181.	2 JAN 0215	316	14.	2 JAN 1240	441	0.
1 JAN 0530	67	21.	1 JAN 1555	192	171.	2 JAN 0220	317	14.	2 JAN 1245	442	0.
1 JAN 0535	68	21.	1 JAN 1600	193	160.	2 JAN 0225	318	13.	2 JAN 1250	443	0.
1 JAN 0540	69	21.	1 JAN 1605	194	151.	2 JAN 0230	319	13.	2 JAN 1255	444	0.
1 JAN 0545	70	21.	1 JAN 1610	195	142.	2 JAN 0235	320	12.	2 JAN 1300	445	0.
1 JAN 0550	71	21.	1 JAN 1615	196	134.	2 JAN 0240	321	11.	2 JAN 1305	446	0.
1 JAN 0555	72	22.	1 JAN 1620	197	126.	2 JAN 0245	322	11.	2 JAN 1310	447	0.
1 JAN 0600	73	22.	1 JAN 1625	198	119.	2 JAN 0250	323	10.	2 JAN 1315	448	0.
1 JAN 0605	74	22.	1 JAN 1630	199	113.	2 JAN 0255	324	10.	2 JAN 1320	449	0.
1 JAN 0610	75	23.	1 JAN 1635	200	107.	2 JAN 0300	325	9.	2 JAN 1325	450	0.
1 JAN 0615	76	23.	1 JAN 1640	201	103.	2 JAN 0305	326	9.	2 JAN 1330	451	0.
1 JAN 0620	77	23.	1 JAN 1645	202	100.	2 JAN 0310	327	8.	2 JAN 1335	452	0.
1 JAN 0625	78	24.	1 JAN 1650	203	97.	2 JAN 0315	328	8.	2 JAN 1340	453	0.
1 JAN 0630	79	24.	1 JAN 1655	204	94.	2 JAN 0320	329	8.	2 JAN 1345	454	0.
1 JAN 0635	80	24.	1 JAN 1700	205	91.	2 JAN 0325	330	7.	2 JAN 1350	455	0.
1 JAN 0640	81	24.	1 JAN 1705	206	88.	2 JAN 0330	331	7.	2 JAN 1355	456	0.
1 JAN 0645	82	25.	1 JAN 1710	207	86.	2 JAN 0335	332	6.	2 JAN 1400	457	0.
1 JAN 0650	83	25.	1 JAN 1715	208	83.	2 JAN 0340	333	6.	2 JAN 1405	458	0.
1 JAN 0655	84	25.	1 JAN 1720	209	81.	2 JAN 0345	334	6.	2 JAN 1410	459	0.
1 JAN 0700	85	25.	1 JAN 1725	210	79.	2 JAN 0350	335	5.	2 JAN 1415	460	0.
1 JAN 0705	86	26.	1 JAN 1730	211	77.	2 JAN 0355	336	5.	2 JAN 1420	461	0.
1 JAN 0710	87	26.	1 JAN 1735	212	74.	2 JAN 0400	337	5.	2 JAN 1425	462	0.
1 JAN 0715	88	26.	1 JAN 1740	213	73.	2 JAN 0405	338	4.	2 JAN 1430	463	0.
1 JAN 0720	89	27.	1 JAN 1745	214	71.	2 JAN 0410	339	4.	2 JAN 1435	464	0.
1 JAN 0725	90	27.	1 JAN 1750	215	69.	2 JAN 0415	340	4.	2 JAN 1440	465	0.
1 JAN 0730	91	27.	1 JAN 1755	216	67.	2 JAN 0420	341	4.	2 JAN 1445	466	0.
1 JAN 0735	92	27.	1 JAN 1800	217	65.	2 JAN 0425	342	3.	2 JAN 1450	467	0.
1 JAN 0740	93	28.	1 JAN 1805	218	63.	2 JAN 0430	343	3.	2 JAN 1455	468	0.
1 JAN 0745	94	28.	1 JAN 1810	219	62.	2 JAN 0435	344	3.	2 JAN 1500	469	0.
1 JAN 0750	95	28.	1 JAN 1815	220	60.	2 JAN 0440	345	3.	2 JAN 1505	470	0.
1 JAN 0755	96	29.	1 JAN 1820	221	58.	2 JAN 0445	346	3.	2 JAN 1510	471	0.
1 JAN 0800	97	29.	1 JAN 1825	222	57.	2 JAN 0450	347	3.	2 JAN 1515	472	0.
1 JAN 0805	98	29.	1 JAN 1830	223	55.	2 JAN 0455	348	2.	2 JAN 1520	473	0.
1 JAN 0810	99	30.	1 JAN 1835	224	54.	2 JAN 0500	349	2.	2 JAN 1525	474	0.
1 JAN 0815	100	30.	1 JAN 1840	225	53.	2 JAN 0505	350	2.	2 JAN 1530	475	0.
1 JAN 0820	101	31.	1 JAN 1845	226	51.	2 JAN 0510	351	2.	2 JAN 1535	476	0.
1 JAN 0825	102	32.	1 JAN 1850	227	50.	2 JAN 0515	352	2.	2 JAN 1540	477	0.
1 JAN 0830	103	33.	1 JAN 1855	228	49.	2 JAN 0520	353	2.	2 JAN 1545	478	0.

1 JAN	0835	104	33.	*	1 JAN	1900	229	48.	*	2 JAN	0525	354	2.	*	2 JAN	1550	479	0.
1 JAN	0840	105	33.	*	1 JAN	1905	230	46.	*	2 JAN	0530	355	1.	*	2 JAN	1555	480	0.
1 JAN	0845	106	34.	*	1 JAN	1910	231	45.	*	2 JAN	0535	356	1.	*	2 JAN	1600	481	0.
1 JAN	0850	107	34.	*	1 JAN	1915	232	44.	*	2 JAN	0540	357	1.	*	2 JAN	1605	482	0.
1 JAN	0855	108	34.	*	1 JAN	1920	233	43.	*	2 JAN	0545	358	1.	*	2 JAN	1610	483	0.
1 JAN	0900	109	35.	*	1 JAN	1925	234	42.	*	2 JAN	0550	359	1.	*	2 JAN	1615	484	0.
1 JAN	0905	110	35.	*	1 JAN	1930	235	41.	*	2 JAN	0555	360	1.	*	2 JAN	1620	485	0.
1 JAN	0910	111	36.	*	1 JAN	1935	236	40.	*	2 JAN	0600	361	1.	*	2 JAN	1625	486	0.
1 JAN	0915	112	36.	*	1 JAN	1940	237	39.	*	2 JAN	0605	362	1.	*	2 JAN	1630	487	0.
1 JAN	0920	113	37.	*	1 JAN	1945	238	38.	*	2 JAN	0610	363	1.	*	2 JAN	1635	488	0.
1 JAN	0925	114	37.	*	1 JAN	1950	239	37.	*	2 JAN	0615	364	1.	*	2 JAN	1640	489	0.
1 JAN	0930	115	38.	*	1 JAN	1955	240	36.	*	2 JAN	0620	365	1.	*	2 JAN	1645	490	0.
1 JAN	0935	116	39.	*	1 JAN	2000	241	35.	*	2 JAN	0625	366	1.	*	2 JAN	1650	491	0.
1 JAN	0940	117	39.	*	1 JAN	2005	242	34.	*	2 JAN	0630	367	1.	*	2 JAN	1655	492	0.
1 JAN	0945	118	40.	*	1 JAN	2010	243	33.	*	2 JAN	0635	368	1.	*	2 JAN	1700	493	0.
1 JAN	0950	119	41.	*	1 JAN	2015	244	33.	*	2 JAN	0640	369	1.	*	2 JAN	1705	494	0.
1 JAN	0955	120	42.	*	1 JAN	2020	245	32.	*	2 JAN	0645	370	1.	*	2 JAN	1710	495	0.
1 JAN	1000	121	42.	*	1 JAN	2025	246	32.	*	2 JAN	0650	371	0.	*	2 JAN	1715	496	0.
1 JAN	1005	122	43.	*	1 JAN	2030	247	31.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	44.	*	1 JAN	2035	248	31.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	45.	*	1 JAN	2040	249	30.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	46.	*	1 JAN	2045	250	30.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	41.58-HR
+ (CFS)	(HR)					
		(CFS)				
+ 8465.	12.83		2049.	535.	309.	309.
		(INCHES)	1.424	1.487	1.490	1.490
		(AC-FT)	1016.	1061.	1063.	1063.

CUMULATIVE AREA = 13.38 SQ MI

-----DSS---ZOPEN: Existing File Opened, File: UNE100.DSS
Unit: 71; DSS Version: 6-EA
-----DSS---ZWRITE Unit 71; Vers. 10: /UNNAMED/C010/FLOW/31DEC1989/5MIN/CALC/
-----DSS---ZWRITE Unit 71; Vers. 10: /UNNAMED/C010/FLOW/01JAN1990/5MIN/CALC/
-----DSS---ZWRITE Unit 71; Vers. 10: /UNNAMED/C010/FLOW/02JAN1990/5MIN/CALC/

****

INTERPOLATED HYDROGRAPH AT C010

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	JAN	0000	1	0.	1	JAN	1025	126	51.	1	JAN	2050	251	37.	2	JAN	0715	376	0.
1	JAN	0005	2	0.	1	JAN	1030	127	53.	1	JAN	2055	252	36.	2	JAN	0720	377	0.
1	JAN	0010	3	0.	1	JAN	1035	128	54.	1	JAN	2100	253	36.	2	JAN	0725	378	0.
1	JAN	0015	4	0.	1	JAN	1040	129	56.	1	JAN	2105	254	35.	2	JAN	0730	379	0.
1	JAN	0020	5	1.	1	JAN	1045	130	59.	1	JAN	2110	255	34.	2	JAN	0735	380	0.
1	JAN	0025	6	1.	1	JAN	1050	131	63.	1	JAN	2115	256	34.	2	JAN	0740	381	0.
1	JAN	0030	7	1.	1	JAN	1055	132	68.	1	JAN	2120	257	33.	2	JAN	0745	382	0.
1	JAN	0035	8	1.	1	JAN	1100	133	76.	1	JAN	2125	258	32.	2	JAN	0750	383	0.
1	JAN	0040	9	2.	1	JAN	1105	134	86.	1	JAN	2130	259	32.	2	JAN	0755	384	0.
1	JAN	0045	10	2.	1	JAN	1110	135	98.	1	JAN	2135	260	31.	2	JAN	0800	385	0.
1	JAN	0050	11	2.	1	JAN	1115	136	111.	1	JAN	2140	261	31.	2	JAN	0805	386	0.
1	JAN	0055	12	2.	1	JAN	1120	137	126.	1	JAN	2145	262	30.	2	JAN	0810	387	0.
1	JAN	0100	13	2.	1	JAN	1125	138	145.	1	JAN	2150	263	30.	2	JAN	0815	388	0.
1	JAN	0105	14	2.	1	JAN	1130	139	168.	1	JAN	2155	264	29.	2	JAN	0820	389	0.
1	JAN	0110	15	3.	1	JAN	1135	140	220.	1	JAN	2200	265	29.	2	JAN	0825	390	0.
1	JAN	0115	16	3.	1	JAN	1140	141	352.	1	JAN	2205	266	29.	2	JAN	0830	391	0.
1	JAN	0120	17	3.	1	JAN	1145	142	567.	1	JAN	2210	267	29.	2	JAN	0835	392	0.
1	JAN	0125	18	3.	1	JAN	1150	143	926.	1	JAN	2215	268	29.	2	JAN	0840	393	0.
1	JAN	0130	19	3.	1	JAN	1155	144	1477.	1	JAN	2220	269	28.	2	JAN	0845	394	0.
1	JAN	0135	20	3.	1	JAN	1200	145	2335.	1	JAN	2225	270	28.	2	JAN	0850	395	0.
1	JAN	0140	21	4.	1	JAN	1205	146	3452.	1	JAN	2230	271	28.	2	JAN	0855	396	0.
1	JAN	0145	22	4.	1	JAN	1210	147	4209.	1	JAN	2235	272	28.	2	JAN	0900	397	0.
1	JAN	0150	23	4.	1	JAN	1215	148	4425.	1	JAN	2240	273	27.	2	JAN	0905	398	0.
1	JAN	0155	24	5.	1	JAN	1220	149	4405.	1	JAN	2245	274	27.	2	JAN	0910	399	0.
1	JAN	0200	25	5.	1	JAN	1225	150	4622.	1	JAN	2250	275	27.	2	JAN	0915	400	0.
1	JAN	0205	26	5.	1	JAN	1230	151	5508.	1	JAN	2255	276	27.	2	JAN	0920	401	0.
1	JAN	0210	27	6.	1	JAN	1235	152	6997.	1	JAN	2300	277	26.	2	JAN	0925	402	0.
1	JAN	0215	28	6.	1	JAN	1240	153	8527.	1	JAN	2305	278	26.	2	JAN	0930	403	0.
1	JAN	0220	29	7.	1	JAN	1245	154	9512.	1	JAN	2310	279	26.	2	JAN	0935	404	0.
1	JAN	0225	30	7.	1	JAN	1250	155	9825.	1	JAN	2315	280	26.	2	JAN	0940	405	0.
1	JAN	0230	31	8.	1	JAN	1255	156	9717.	1	JAN	2320	281	26.	2	JAN	0945	406	0.
1	JAN	0235	32	8.	1	JAN	1300	157	9318.	1	JAN	2325	282	25.	2	JAN	0950	407	0.
1	JAN	0240	33	9.	1	JAN	1305	158	8714.	1	JAN	2330	283	25.	2	JAN	0955	408	0.
1	JAN	0245	34	9.	1	JAN	1310	159	7983.	1	JAN	2335	284	25.	2	JAN	1000	409	0.
1	JAN	0250	35	10.	1	JAN	1315	160	7222.	1	JAN	2340	285	25.	2	JAN	1005	410	0.
1	JAN	0255	36	10.	1	JAN	1320	161	6552.	1	JAN	2345	286	25.	2	JAN	1010	411	0.
1	JAN	0300	37	11.	1	JAN	1325	162	5923.	1	JAN	2350	287	25.	2	JAN	1015	412	0.
1	JAN	0305	38	12.	1	JAN	1330	163	5280.	1	JAN	2355	288	25.	2	JAN	1020	413	0.
1	JAN	0310	39	12.	1	JAN	1335	164	4708.	2	JAN	0000	289	24.	2	JAN	1025	414	0.
1	JAN	0315	40	13.	1	JAN	1340	165	4262.	2	JAN	0005	290	24.	2	JAN	1030	415	0.
1	JAN	0320	41	13.	1	JAN	1345	166	3880.	2	JAN	0010	291	24.	2	JAN	1035	416	0.
1	JAN	0325	42	14.	1	JAN	1350	167	3495.	2	JAN	0015	292	23.	2	JAN	1040	417	0.
1	JAN	0330	43	14.	1	JAN	1355	168	3137.	2	JAN	0020	293	23.	2	JAN	1045	418	0.
1	JAN	0335	44	15.	1	JAN	1400	169	2832.	2	JAN	0025	294	23.	2	JAN	1050	419	0.
1	JAN	0340	45	15.	1	JAN	1405	170	2598.	2	JAN	0030	295	22.	2	JAN	1055	420	0.
1	JAN	0345	46	16.	1	JAN	1410	171	2367.	2	JAN	0035	296	22.	2	JAN	1100	421	0.
1	JAN	0350	47	16.	1	JAN	1415	172	2071.	2	JAN	0040	297	22.	2	JAN	1105	422	0.
1	JAN	0355	48	16.	1	JAN	1420	173	1668.	2	JAN	0045	298	22.	2	JAN	1110	423	0.
1	JAN	0400	49	17.	1	JAN	1425	174	1072.	2	JAN	0050	299	21.	2	JAN	1115	424	0.
1	JAN	0405	50	17.	1	JAN	1430	175	770.	2	JAN	0055	300	21.	2	JAN	1120	425	0.
1	JAN	0410	51	18.	1	JAN	1435	176	674.	2	JAN	0100	301	21.	2	JAN	1125	426	0.
1	JAN	0415	52	18.	1	JAN	1440	177	611.	2	JAN	0105	302	21.	2	JAN	1130	427	0.
1	JAN	0420	53	19.	1	JAN	1445	178	555.	2	JAN	0110	303	21.	2	JAN	1135	428	0.
1	JAN	0425	54	19.	1	JAN	1450	179	506.	2	JAN	0115	304	20.	2	JAN	1140	429	0.
1	JAN	0430	55	19.	1	JAN	1455	180	466.	2	JAN	0120	305	20.	2	JAN	1145	430	0.
1	JAN	0435	56	20.	1	JAN	1500	181	431.	2	JAN	0125	306	20.	2	JAN	1150	431	0.
1	JAN	0440	57	20.	1	JAN	1505	182	397.	2	JAN	0130	307	20.	2	JAN	1155	432	0.

1 JAN	0445	58	20.	*	1 JAN	1510	183	366.	*	2 JAN	0135	308	19.	*	2 JAN	1200	433	0.
1 JAN	0450	59	21.	*	1 JAN	1515	184	339.	*	2 JAN	0140	309	19.	*	2 JAN	1205	434	0.
1 JAN	0455	60	21.	*	1 JAN	1520	185	317.	*	2 JAN	0145	310	18.	*	2 JAN	1210	435	0.
1 JAN	0500	61	21.	*	1 JAN	1525	186	296.	*	2 JAN	0150	311	18.	*	2 JAN	1215	436	0.
1 JAN	0505	62	21.	*	1 JAN	1530	187	276.	*	2 JAN	0155	312	18.	*	2 JAN	1220	437	0.
1 JAN	0510	63	22.	*	1 JAN	1535	188	257.	*	2 JAN	0200	313	17.	*	2 JAN	1225	438	0.
1 JAN	0515	64	22.	*	1 JAN	1540	189	239.	*	2 JAN	0205	314	17.	*	2 JAN	1230	439	0.
1 JAN	0520	65	22.	*	1 JAN	1545	190	223.	*	2 JAN	0210	315	16.	*	2 JAN	1235	440	0.
1 JAN	0525	66	22.	*	1 JAN	1550	191	210.	*	2 JAN	0215	316	16.	*	2 JAN	1240	441	0.
1 JAN	0530	67	23.	*	1 JAN	1555	192	199.	*	2 JAN	0220	317	15.	*	2 JAN	1245	442	0.
1 JAN	0535	68	23.	*	1 JAN	1600	193	189.	*	2 JAN	0225	318	14.	*	2 JAN	1250	443	0.
1 JAN	0540	69	23.	*	1 JAN	1605	194	180.	*	2 JAN	0230	319	14.	*	2 JAN	1255	444	0.
1 JAN	0545	70	23.	*	1 JAN	1610	195	171.	*	2 JAN	0235	320	13.	*	2 JAN	1300	445	0.
1 JAN	0550	71	24.	*	1 JAN	1615	196	162.	*	2 JAN	0240	321	13.	*	2 JAN	1305	446	0.
1 JAN	0555	72	24.	*	1 JAN	1620	197	154.	*	2 JAN	0245	322	12.	*	2 JAN	1310	447	0.
1 JAN	0600	73	24.	*	1 JAN	1625	198	147.	*	2 JAN	0250	323	11.	*	2 JAN	1315	448	0.
1 JAN	0605	74	25.	*	1 JAN	1630	199	140.	*	2 JAN	0255	324	11.	*	2 JAN	1320	449	0.
1 JAN	0610	75	25.	*	1 JAN	1635	200	133.	*	2 JAN	0300	325	10.	*	2 JAN	1325	450	0.
1 JAN	0615	76	25.	*	1 JAN	1640	201	127.	*	2 JAN	0305	326	10.	*	2 JAN	1330	451	0.
1 JAN	0620	77	26.	*	1 JAN	1645	202	122.	*	2 JAN	0310	327	9.	*	2 JAN	1335	452	0.
1 JAN	0625	78	26.	*	1 JAN	1650	203	117.	*	2 JAN	0315	328	9.	*	2 JAN	1340	453	0.
1 JAN	0630	79	27.	*	1 JAN	1655	204	113.	*	2 JAN	0320	329	8.	*	2 JAN	1345	454	0.
1 JAN	0635	80	27.	*	1 JAN	1700	205	109.	*	2 JAN	0325	330	8.	*	2 JAN	1350	455	0.
1 JAN	0640	81	27.	*	1 JAN	1705	206	106.	*	2 JAN	0330	331	7.	*	2 JAN	1355	456	0.
1 JAN	0645	82	28.	*	1 JAN	1710	207	103.	*	2 JAN	0335	332	7.	*	2 JAN	1400	457	0.
1 JAN	0650	83	28.	*	1 JAN	1715	208	101.	*	2 JAN	0340	333	7.	*	2 JAN	1405	458	0.
1 JAN	0655	84	28.	*	1 JAN	1720	209	99.	*	2 JAN	0345	334	6.	*	2 JAN	1410	459	0.
1 JAN	0700	85	29.	*	1 JAN	1725	210	97.	*	2 JAN	0350	335	6.	*	2 JAN	1415	460	0.
1 JAN	0705	86	29.	*	1 JAN	1730	211	95.	*	2 JAN	0355	336	6.	*	2 JAN	1420	461	0.
1 JAN	0710	87	29.	*	1 JAN	1735	212	93.	*	2 JAN	0400	337	5.	*	2 JAN	1425	462	0.
1 JAN	0715	88	29.	*	1 JAN	1740	213	91.	*	2 JAN	0405	338	5.	*	2 JAN	1430	463	0.
1 JAN	0720	89	30.	*	1 JAN	1745	214	88.	*	2 JAN	0410	339	5.	*	2 JAN	1435	464	0.
1 JAN	0725	90	30.	*	1 JAN	1750	215	87.	*	2 JAN	0415	340	4.	*	2 JAN	1440	465	0.
1 JAN	0730	91	31.	*	1 JAN	1755	216	85.	*	2 JAN	0420	341	4.	*	2 JAN	1445	466	0.
1 JAN	0735	92	32.	*	1 JAN	1800	217	83.	*	2 JAN	0425	342	4.	*	2 JAN	1450	467	0.
1 JAN	0740	93	32.	*	1 JAN	1805	218	81.	*	2 JAN	0430	343	4.	*	2 JAN	1455	468	0.
1 JAN	0745	94	33.	*	1 JAN	1810	219	79.	*	2 JAN	0435	344	3.	*	2 JAN	1500	469	0.
1 JAN	0750	95	33.	*	1 JAN	1815	220	77.	*	2 JAN	0440	345	3.	*	2 JAN	1505	470	0.
1 JAN	0755	96	34.	*	1 JAN	1820	221	75.	*	2 JAN	0445	346	3.	*	2 JAN	1510	471	0.
1 JAN	0800	97	34.	*	1 JAN	1825	222	73.	*	2 JAN	0450	347	3.	*	2 JAN	1515	472	0.
1 JAN	0805	98	34.	*	1 JAN	1830	223	71.	*	2 JAN	0455	348	3.	*	2 JAN	1520	473	0.
1 JAN	0810	99	35.	*	1 JAN	1835	224	70.	*	2 JAN	0500	349	2.	*	2 JAN	1525	474	0.
1 JAN	0815	100	35.	*	1 JAN	1840	225	68.	*	2 JAN	0505	350	2.	*	2 JAN	1530	475	0.
1 JAN	0820	101	35.	*	1 JAN	1845	226	66.	*	2 JAN	0510	351	2.	*	2 JAN	1535	476	0.
1 JAN	0825	102	36.	*	1 JAN	1850	227	65.	*	2 JAN	0515	352	2.	*	2 JAN	1540	477	0.
1 JAN	0830	103	36.	*	1 JAN	1855	228	63.	*	2 JAN	0520	353	2.	*	2 JAN	1545	478	0.
1 JAN	0835	104	37.	*	1 JAN	1900	229	62.	*	2 JAN	0525	354	2.	*	2 JAN	1550	479	0.
1 JAN	0840	105	37.	*	1 JAN	1905	230	60.	*	2 JAN	0530	355	2.	*	2 JAN	1555	480	0.
1 JAN	0845	106	37.	*	1 JAN	1910	231	58.	*	2 JAN	0535	356	1.	*	2 JAN	1600	481	0.
1 JAN	0850	107	38.	*	1 JAN	1915	232	57.	*	2 JAN	0540	357	1.	*	2 JAN	1605	482	0.
1 JAN	0855	108	38.	*	1 JAN	1920	233	55.	*	2 JAN	0545	358	1.	*	2 JAN	1610	483	0.
1 JAN	0900	109	38.	*	1 JAN	1925	234	54.	*	2 JAN	0550	359	1.	*	2 JAN	1615	484	0.
1 JAN	0905	110	39.	*	1 JAN	1930	235	52.	*	2 JAN	0555	360	1.	*	2 JAN	1620	485	0.
1 JAN	0910	111	39.	*	1 JAN	1935	236	50.	*	2 JAN	0600	361	1.	*	2 JAN	1625	486	0.
1 JAN	0915	112	40.	*	1 JAN	1940	237	49.	*	2 JAN	0605	362	1.	*	2 JAN	1630	487	0.
1 JAN	0920	113	40.	*	1 JAN	1945	238	48.	*	2 JAN	0610	363	1.	*	2 JAN	1635	488	0.
1 JAN	0925	114	41.	*	1 JAN	1950	239	46.	*	2 JAN	0615	364	1.	*	2 JAN	1640	489	0.
1 JAN	0930	115	42.	*	1 JAN	1955	240	45.	*	2 JAN	0620	365	1.	*	2 JAN	1645	490	0.
1 JAN	0935	116	42.	*	1 JAN	2000	241	44.	*	2 JAN	0625	366	1.	*	2 JAN	1650	491	0.
1 JAN	0940	117	43.	*	1 JAN	2005	242	43.	*	2 JAN	0630	367	1.	*	2 JAN	1655	492	0.
1 JAN	0945	118	44.	*	1 JAN	2010	243	42.	*	2 JAN	0635	368	1.	*	2 JAN	1700	493	0.
1 JAN	0950	119	45.	*	1 JAN	2015	244	41.	*	2 JAN	0640	369	1.	*	2 JAN	1705	494	0.
1 JAN	0955	120	46.	*	1 JAN	2020	245	41.	*	2 JAN	0645	370	1.	*	2 JAN	1710	495	0.
1 JAN	1000	121	47.	*	1 JAN	2025	246	40.	*	2 JAN	0650	371	1.	*	2 JAN	1715	496	0.
1 JAN	1005	122	47.	*	1 JAN	2030	247	39.	*	2 JAN	0655	372	0.	*	2 JAN	1720	497	0.
1 JAN	1010	123	48.	*	1 JAN	2035	248	39.	*	2 JAN	0700	373	0.	*	2 JAN	1725	498	0.
1 JAN	1015	124	49.	*	1 JAN	2040	249	38.	*	2 JAN	0705	374	0.	*	2 JAN	1730	499	0.
1 JAN	1020	125	50.	*	1 JAN	2045	250	38.	*	2 JAN	0710	375	0.	*	2 JAN	1735	500	0.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	41.58-HR
(CFS)	(HR)					
		(CFS)				
9825.	12.83		2360.	617.	357.	357.
		(INCHES)	1.640	1.714	1.717	1.717
		(AC-FT)	1170.	1223.	1225.	1225.

CUMULATIVE AREA = 13.38 SQ MI

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	U1	1474.	12.08	147.	40.	23.	.81		
ROUTED TO	001002	974.	12.67	147.	40.	23.	.81		
HYDROGRAPH AT	U2	2857.	12.25	456.	120.	70.	1.76		
2 COMBINED AT	C002L	3267.	12.33	596.	159.	92.	2.57		
HYDROGRAPH AT	U3	2233.	12.33	363.	94.	54.	1.61		
HYDROGRAPH AT									

+	U4	1198.	12.25	139.	37.	21.	.82
+	3 COMBINED AT C002	6492.	12.33	1075.	283.	163.	4.99
+	ROUTED TO 002003	5797.	12.42	1073.	283.	163.	4.99
+	HYDROGRAPH AT U6	1132.	12.17	121.	32.	19.	.69
+	2 COMBINED AT C003L	6303.	12.42	1181.	312.	180.	5.68
+	HYDROGRAPH AT U5	1897.	12.25	231.	61.	35.	1.29
+	HYDROGRAPH AT U7	726.	12.33	113.	30.	17.	.74
+	3 COMBINED AT C003	8359.	12.33	1482.	391.	226.	7.70
+	ROUTED TO 003007	7726.	12.67	1481.	391.	226.	7.70
+	HYDROGRAPH AT U12	1588.	12.17	163.	42.	24.	.98
+	2 COMBINED AT C007L	8039.	12.58	1621.	427.	247.	8.69
+	HYDROGRAPH AT U8	529.	12.08	49.	14.	8.	.33
+	ROUTED TO 004006	289.	13.08	49.	14.	8.	.33
+	HYDROGRAPH AT U9	687.	12.25	80.	20.	12.	.43
+	2 COMBINED AT C006L	693.	12.25	129.	33.	19.	.76
+	HYDROGRAPH AT U10	1160.	12.17	124.	31.	18.	.74
+	ROUTED TO 005006	971.	12.25	124.	31.	18.	.74
+	HYDROGRAPH AT U11	1328.	12.25	142.	36.	21.	.92
+	2 COMBINED AT C006R	2274.	12.25	263.	66.	38.	1.66
+	2 COMBINED AT C006	2938.	12.25	387.	98.	57.	2.42
+	ROUTED TO 006007	2762.	12.33	387.	98.	57.	2.42
+	2 COMBINED AT C007	9664.	12.50	1958.	512.	296.	11.11
+	ROUTED TO 007010	9077.	12.92	1957.	512.	296.	11.11
+	HYDROGRAPH AT U13	1539.	12.17	170.	45.	26.	1.03
+	2 COMBINED AT C010L	9203.	12.92	2101.	551.	318.	12.14
+	HYDROGRAPH AT U14	1112.	12.25	170.	44.	26.	.65
+	ROUTED TO 008010	965.	12.50	169.	44.	26.	.65
+	HYDROGRAPH AT U15	1083.	12.17	129.	32.	19.	.58
+	2 COMBINED AT C010R	1673.	12.25	296.	76.	44.	1.24
+	2 COMBINED AT C010	9825.	12.83	2360.	617.	357.	13.38
+	HYDROGRAPH AT U13A	472.	12.25	63.	17.	10.	.35

*** NORMAL END OF HEC-1 ***

```
-----DSS---ZCLOSE Unit:  71,   File: UNE100.DSS
          Pointer Utilization:    .25
          Number of Records:      3
          File Size:     14.8  Kbytes
          Percent Inactive:     .0
```

APPENDIX C

DISKETTE WITH HEC-1 INPUT FILES

APPENDIX D

HEC-1 MODEL INDIRECT METHOD VERIFICATION WORKSHEETS

WATERSHED AREA = 8414 ACRES = 13.15 sq. miles

100-yr peak discharge, existing conditions = 9,825 cfs

UNIT peak discharge = $\frac{9,825 \text{ cfs}}{13.15 \text{ sq. mi.}}$ = 747 $\frac{\text{cfs}}{\text{sq. mi.}}$

INDIRECT METHOD 3

MEAN BASIN ELEVATION = 1712 feet (by grid method w/ 90 data pts.)

FIGURE 10-1

PEAK DISCHARGE RELATIONS AND ENVELOPE CURVES

SONORAN WASH

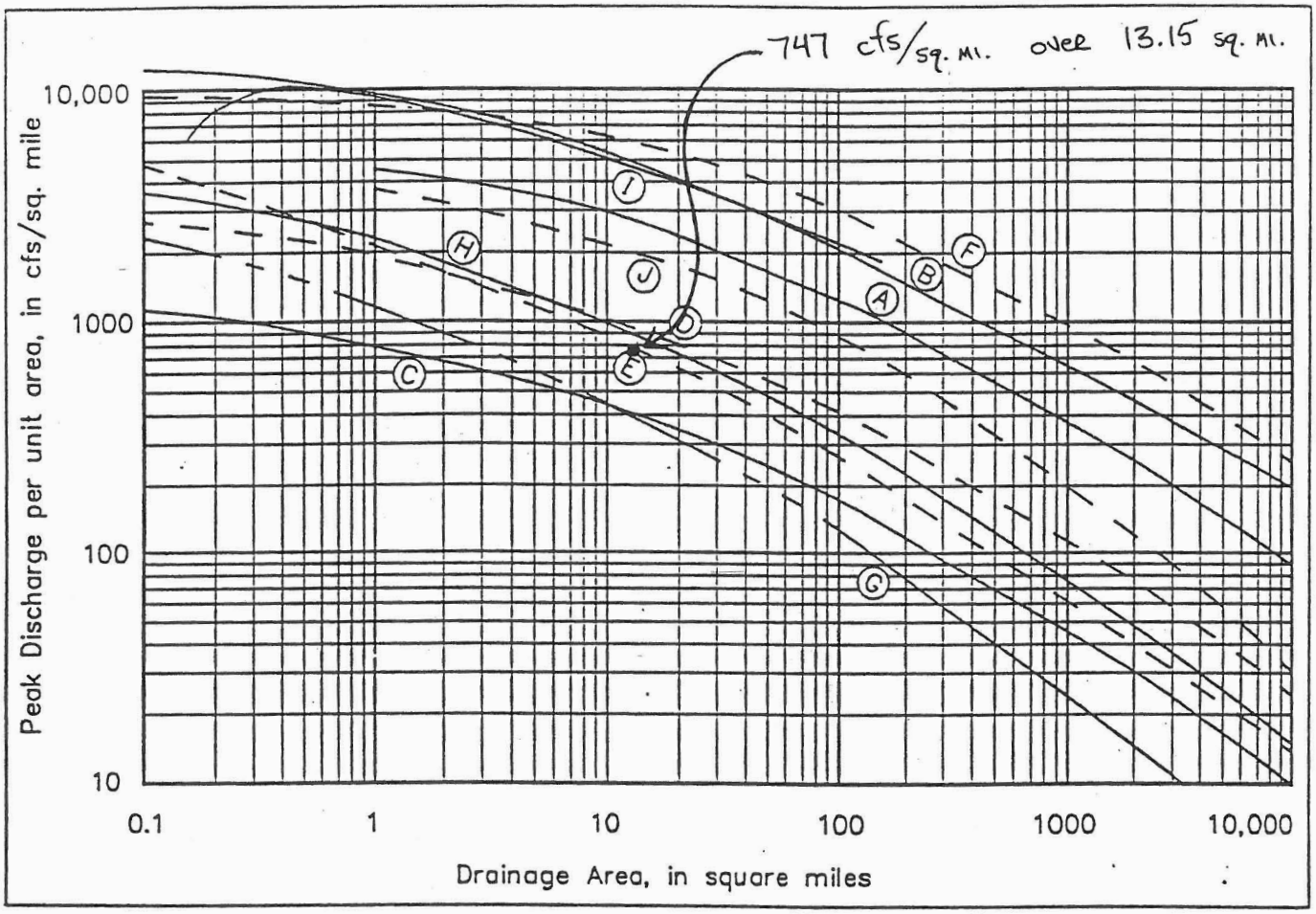
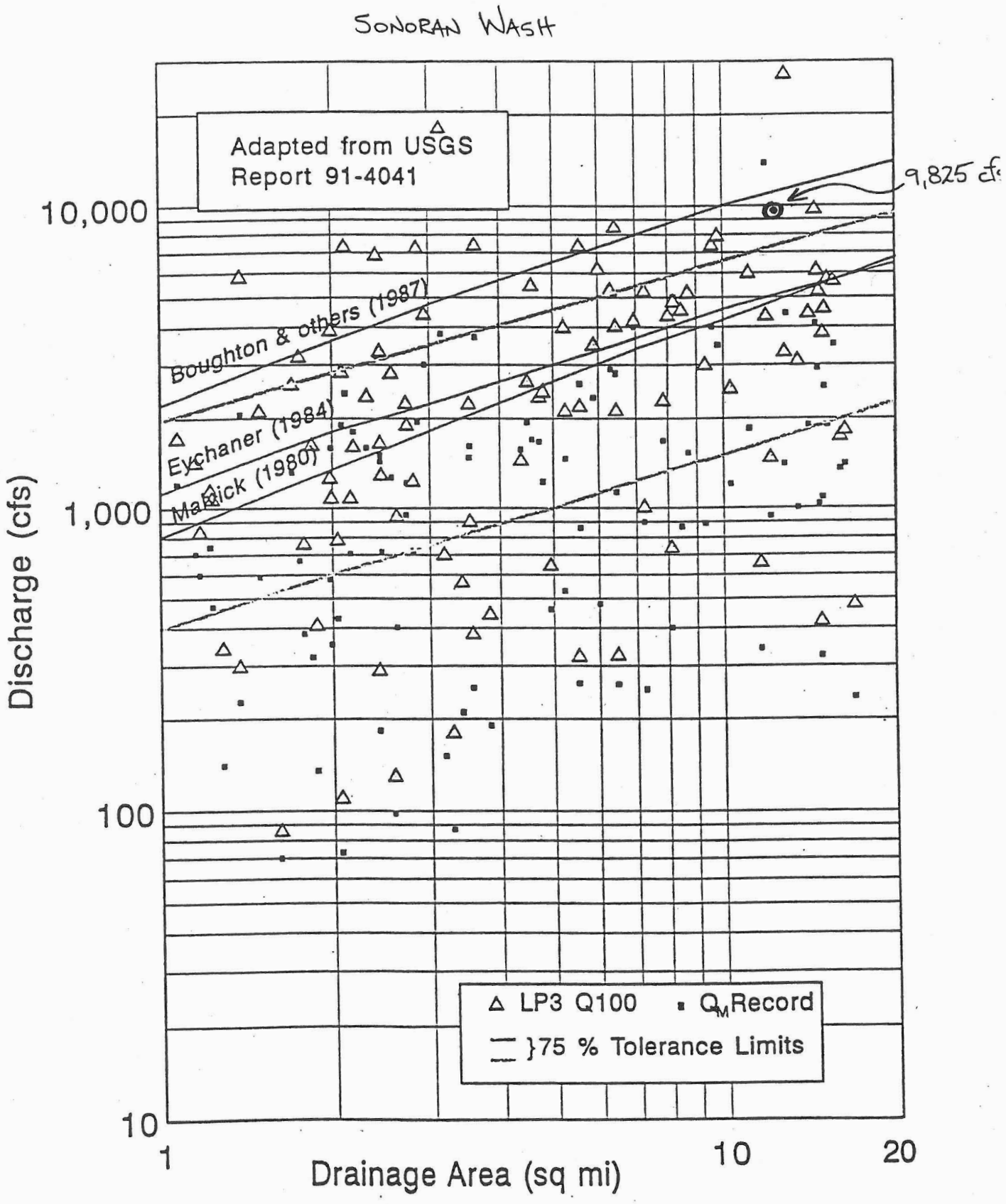


FIGURE 10-4

100-YEAR PEAK DISCHARGE BY LP3 ANALYSIS (LP3 Q100) AND MAXIMUM RECORDED DISCHARGE (Q_M RECORD) vs. DRAINAGE AREA FOR 1 TO 20 SQUARE MILES



SONORAN WASH

FIGURE 10-20

SCATTER DIAGRAM OF INDEPENDENT VARIABLES FOR R12 REGRESSION EQUATION

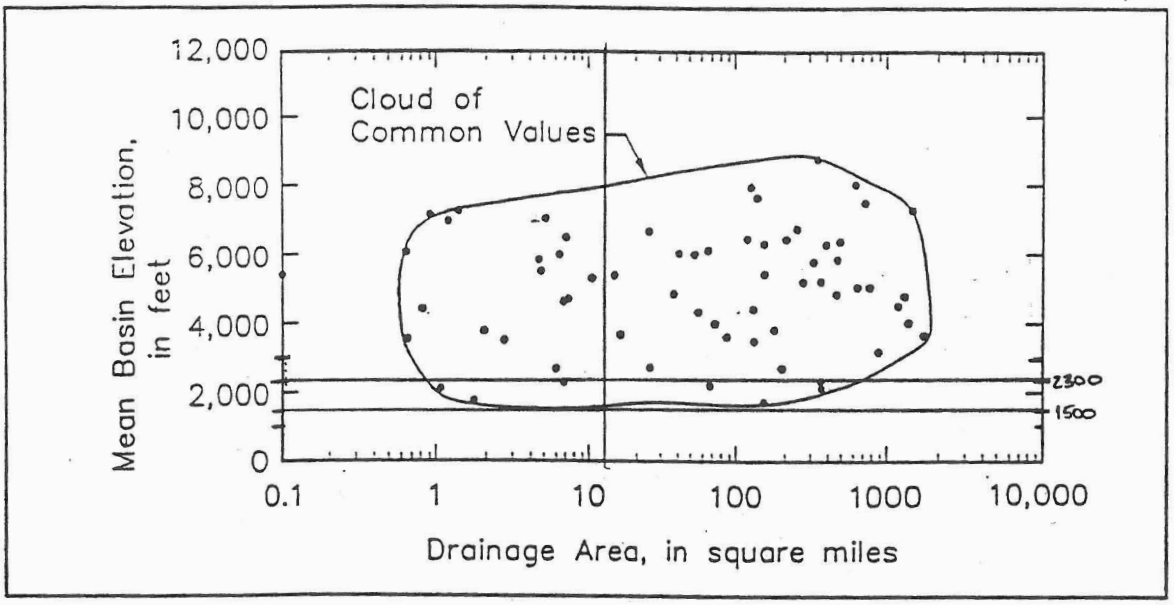
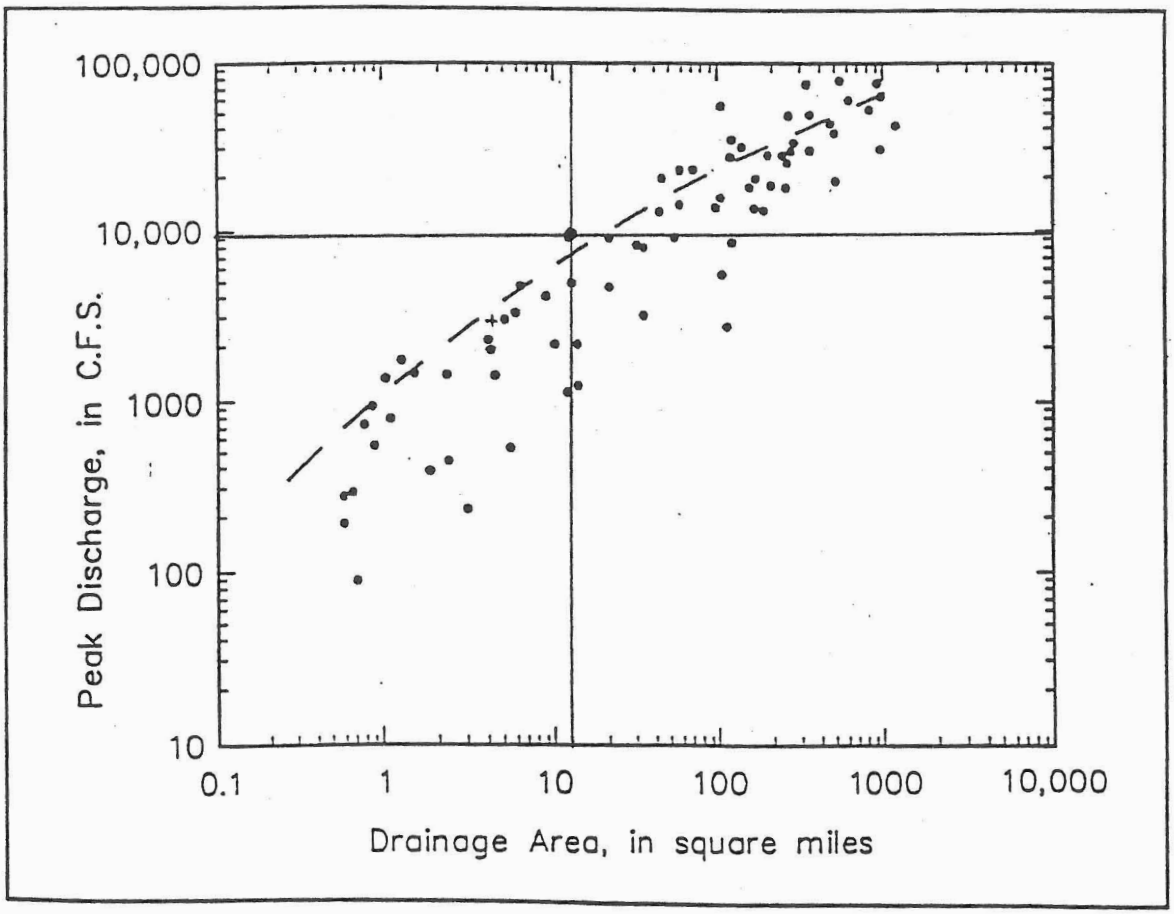


FIGURE 10-21

Q_{100} DATA POINTS AND 100-YEAR PEAK DISCHARGE RELATION FOR R12



SONORAN WASH

TABLE 10-6

FLOOD MAGNITUDE-FREQUENCY RELATIONS FOR THE CENTRAL ARIZONA REGION (R12)

Equation: Q, peak discharge, in cubic feet per second; AREA, drainage area, in square miles; and ELEV, mean basin elevation, in feet divided by 1,000.

AREA = 13.15 sq. mi.

ELEV = 1712 feet

Recurrence interval, in years	Equation	Average standard error of model, in percent
2	$Q = 41.1\ AREA^{0.629}$	102
5	$Q = 238\ AREA^{0.687}\ ELEV^{-0.358}$	64
10	$Q = 479\ AREA^{0.661}\ ELEV^{-0.398}$	47
25	$Q = 942\ AREA^{0.630}\ ELEV^{-0.383}$	34
50	$LOG\ Q = 7.36 - 4.17\ AREA^{-0.08} - 0.440\ LOG\ ELEV$	30
100	$LOG\ Q = 6.55 - 3.17\ AREA^{-0.11} - 0.454\ LOG\ ELEV$	31

$$\log Q = 6.55 - 3.17\left(13.15^{-0.11}\right) - 0.454 \log\left(\frac{1712}{1000}\right)$$

$$\log Q = 4.0563$$

$$Q = 11{,}384 \text{ cfs}$$

Upper limit = 11,384 (1.31) = 14,913 cfs

Lower limit = 11,384 (0.69) = 7,855 cfs

HEC-1 Model 100-yr Q = 9,825 cfs

HEC-RAS Output Files

APPENDIX E

HEC-RAS MODEL

HEC-RAS September 1998 Version 2.2
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX        XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Sonoran Wash - FEMA Analysis
Project File : Sonoran_Wash.prj
Run Date and Time: 8/28/01 3:09:58 PM

Project in English units

Project Description:
Skunk Creek Watercourse Master Plan

Floodplain delineation study for Sonoran
Wash upstream of the CAP by Stantec Consulting Inc. for the Flood Control
District of Maricopa County
FCD:

PLAN DATA

Plan Title: Method 1 Encroachment Model
Plan File : p:\82000141\Design Calculations\Hec-Ras\Phase 2\SW FEMA\Sonoran_Wash.p01

Geometry Title: UpdatedExisting Cond Geo for 100-year
Geometry File : p:\82000141\Design Calculations\Hec-Ras\Phase 2\SW FEMA\Sonoran_Wash.g04

Flow Title : 100-yr, Existing Condition
Flow File : p:\82000141\Design Calculations\Hec-Ras\Phase 2\SW FEMA\Sonoran_Wash.F01

Plan Summary Information:
Number of: Cross Sections = 49 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = Unnamed Trib Reach = Reach 1

RS	Profile	Method	Value1	Value2
3.84	100yr - FW	1	9946.42	10031.17
3.79	100yr - FW	1	9902.31	10030.95
3.76	100yr - FW	1	9959.21	10131.27
3.73	100yr - FW	1	9986.19	10169.83
3.70	100yr - FW	1	9890	10055.04
3.65	100yr - FW	1	9870	10070
3.61	100yr - FW	1	9954.03	10075.81
3.54	100yr - FW	1	9951.95	10120
3.46	100yr - FW	1	9979.06	10093.5
3.40	100yr - FW	1	9957	10096.77
3.31	100yr - FW	1	9820	10021.06
3.24	100yr - FW	1	9870.21	10037.96
3.15	100yr - FW	1	9905.47	10065.23
3.10	100yr - FW	1	9959.56	10104.1
3.05	100yr - FW	1	9964.11	10122.07
2.97	100yr - FW	1	9910	10096.67
2.93	100yr - FW	1	9846.73	10055.56
2.88	100yr - FW	1	9783	10027.56
2.84	100yr - FW	1	9796.51	10023.52

2.77	100yr - FW	1	983410040.56	
2.73	100yr - FW	1	981010039.96	
2.69	100yr - FW	1	984310368.91	
2.64	100yr - FW	1	9973.3910295.76	
2.58	100yr - FW	1	9971.65	10180
2.52	100yr - FW	1	9870.0510182.67	
2.46	100yr - FW	1	9802.6310028.43	
2.41	100yr - FW	1	9845	10135
2.35	100yr - FW	1	9906.210112.44	
2.28	100yr - FW	1	9966.0710129.75	
2.19	100yr - FW	1	9984.19	10238.5
2.13	100yr - FW	1	9840	10232
2.08	100yr - FW	1	9852.8810334.75	
1.99	100yr - FW	1	9913.3510276.96	
1.90	100yr - FW	1	9946.1110566.05	
1.84	100yr - FW	1	9970	10330
1.77	100yr - FW	1	971710062.21	
1.72	100yr - FW	1	9738.0110033.26	
1.65	100yr - FW	1	9834.7910136.72	
1.56	100yr - FW	1	9862.6810239.98	
1.48	100yr - FW	1	9970.88	10370
1.38	100yr - FW	1	9980.15	10550
1.33	100yr - FW	1	9977.4310532.86	
1.29	100yr - FW	1	9944.91	10465
1.25	100yr - FW	1	979010333.67	
1.21	100yr - FW	1	9741.7110299.59	
1.15	100yr - FW	1	9788.6110217.16	
1.09	100yr - FW	1	9832.7410227.55	
1.00	100yr - FW	1	9883.5110262.27	
0.92	100yr - FW	1	9891.4710583.58	
0.82	100yr - FW	1	9624.8810318.81	
0.77	100yr - FW	1	9530.8110374.93	
0.73	100yr - FW	1	9441.7910380.05	
0.66	100yr - FW	1	9188.6910222.51	
0.57	100yr - FW	1	9188.2310097.99	
0.52	100yr - FW	1	9920	10080

River = Sonoran Wash Reach = Sonoran Wash

RS	Profile	Method	Value1	Value2
3.84	100yr - FW	1	9946.4210031.17	
3.79	100yr - FW	1	9902.310030.95	
3.76	100yr - FW	1	9959.2110131.27	
3.73	100yr - FW	1	9986.1910169.83	
3.70	100yr - FW	1	989010055.04	
3.65	100yr - FW	1	9870	10070
3.61	100yr - FW	1	9954.0310075.81	
3.54	100yr - FW	1	9951.95	10120
3.46	100yr - FW	1	9979.06	10093.5
3.40	100yr - FW	1	995710096.77	
3.31	100yr - FW	1	982010021.06	
3.24	100yr - FW	1	9870.210037.96	
3.15	100yr - FW	1	9905.4710065.23	
3.10	100yr - FW	1	9959.56	10104.1
3.05	100yr - FW	1	9964.110122.07	
2.97	100yr - FW	1	991010096.67	
2.93	100yr - FW	1	9846.7310055.56	
2.88	100yr - FW	1	978310027.56	
2.84	100yr - FW	1	9796.510023.52	
2.77	100yr - FW	1	983410040.56	
2.73	100yr - FW	1	981010039.96	
2.69	100yr - FW	1	984310368.91	
2.64	100yr - FW	1	9973.3910295.76	
2.58	100yr - FW	1	9971.65	10180
2.52	100yr - FW	1	9870.0510182.67	
2.46	100yr - FW	1	9802.6310028.43	
2.41	100yr - FW	1	9845	10135
2.35	100yr - FW	1	9906.210112.44	
2.28	100yr - FW	1	9966.0710129.75	
2.19	100yr - FW	1	9984.19	10238.5
2.13	100yr - FW	1	9840	10232
2.08	100yr - FW	1	9852.8810334.75	
1.99	100yr - FW	1	9913.3510276.96	
1.90	100yr - FW	1	9946.1110566.05	
1.84	100yr - FW	1	9970	10330
1.77	100yr - FW	1	971710062.21	
1.72	100yr - FW	1	9738.0110033.26	
1.65	100yr - FW	1	9834.7910136.72	
1.56	100yr - FW	1	9862.6810239.98	
1.48	100yr - FW	1	9970.88	10370
1.38	100yr - FW	1	9980.15	10550
1.33	100yr - FW	1	9977.4310532.86	
1.29	100yr - FW	1	9944.91	10465
1.25	100yr - FW	1	979010333.67	
1.21	100yr - FW	1	9741.7110299.59	
1.15	100yr - FW	1	9788.6110217.16	
1.09	100yr - FW	1	9832.7410227.55	
1.00	100yr - FW	1	9883.5110262.27	
0.92	100yr - FW	1	9891.4710583.58	

FLOW DATA

Flow Title: 100-yr, Existing Condition

Flow File : p:\82000141\Design Calculations\Hec-Ras\Phase 2\SW FEMA\Sonoran_Wash.F01

Flow Data (cfs)

River	Reach	RS	100yr - FP	100yr - FW
Sonoran Wash	Sonoran Wash	3.84	3300	3300
Sonoran Wash	Sonoran Wash	3.65	6500	6500
Sonoran Wash	Sonoran Wash	2.69	8400	8400
Sonoran Wash	Sonoran Wash	1.99	9700	9700

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Sonoran Wash	Sonoran Wash	100yr - FP		Known WS = 1532.1
Sonoran Wash	Sonoran Wash	100yr - FW		Known WS = 1533.1

GEOMETRY DATA

Geometry Title: UpdatedExisting Cond Geo for 100-year
Geometry File : p:\82000141\Design Calculations\Hec-Ras\Phase 2\SW FEMA\Sonoran_Wash.g04

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.84

INPUT
Description:
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9547.62	1632	9553.35	1631.83	9575.75	1631.15	9580.03	1631.02	9581.49	1630.99
9596.35	1630.8	9601.38	1630.78	9605.66	1630.72	9640.94	1630.1	9641.66	1630.09
9645.57	1630	9648.99	1629.98	9649.33	1629.97	9649.83	1629.96	9650.36	1629.94
9650.92	1629.9	9651.68	1629.91	9654.59	1629.85	9656.59	1629.84	9705.05	1629.11
9710.53	1629.1	9713.24	1629.1	9714.01	1629.09	9715.07	1629.07	9718	1629.06
9721.33	1629	9724.03	1629.04	9724.6	1629.03	9726.16	1629.01	9726.22	1629.01
9726.29	1629	9728.04	1628.95	9729.54	1628.92	9730.04	1628.9	9731.77	1628.82
9732.79	1628.8	9733.11	1628.84	9735.34	1628.74	9737.83	1628.7	9739.64	1628.72
9740.21	1628.7	9742.5	1628.76	9746.82	1628.85	9747.76	1628.85	9752.39	1628.9
9754.89	1628.8	9756.14	1628.82	9757.47	1628.81	9776.96	1628.72	9778.11	1628.71
9779.25	1628.7	9779.46	1628.74	9781.55	1628.85	9783.39	1628.88	9786.22	1628.88
9793.09	1628.8	9795.13	1628.83	9802.11	1628.67	9810.66	1628.48	9821.08	1628.2
9827.94	1628	9838.5	1627.71	9884.12	1626.7	9885.02	1626.68	9886.31	1626.7
9887.55	1626.7	9888.66	1626.73	9890.64	1626.68	9892.03	1626.67	9892.85	1626.6
9894.31	1626.6	9895.79	1626.54	9908.25	1626.34	9920.43	1626.14	9921.69	1626.1
9926.77	1626	9928.9	1626	9930.36	1625.95	9932.06	1625.87	9970.95	1625.45
9978.04	1625.4	9980.97	1624.77	9984.1	1624	9988.54	1622.84	9990.86	1622.31
9991.24	1622.2	9992.08	1622	9992.12	1621.98	9992.19	1621.96	9992.32	1621.93
9992.66	1621.8	9993.14	1621.71	9996.1	1621.71	10000	1621.710000.03		1621.69
10008.18	1621.610008.47		1621.6810009.24		162210011.12		1622.7910013.77		1624
10018.17	1625.810019.37		1626.1110037.26		1625.29 10047.9		1624.9610049.44		1624.92
10051.35	1625.210059.96		162610067.24		1626.7210073.87		1627.4410080.74		1627.6
10094.49	1627.710100.26		1627.7910101.32		1627.810105.66		1627.8410109.98		1627.91
10110.32	1627.910110.93		1627.9210115.06		162810120.43		1628.1510123.11		1628.16
10132.44	1628.410168.68		1629.0810170.63		1629.0910172.51		1629.1 10174.4		1629.11
10176.49	1629.110183.65		1629.2510201.66		1629.6110221.63		163010263.62		1630.84
10276.28	163110282.65		1631.0710291.14		1631.18 10347.2		1632		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9547.62	.06	9978.04	.04510019.37		.05510073.87		.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9978.0410019.37 285.32 272.62 229.06 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1628.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1628.20	Reach Len. (ft)	285.32	272.62	229.06
Crit W.S. (ft)	1627.95	Flow Area (sq ft)	256.87	215.18	151.83
E.G. Slope (ft/ft)	0.008215	Area (sq ft)	256.87	215.18	151.83
Q Total (cfs)	3300.00	Flow (cfs)	800.90	1893.74	605.36
Top Width (ft)	303.39	Top Width (ft)	156.87	41.33	105.19
Vel Total (ft/s)	5.29	Avg. Vel. (ft/s)	3.12	8.80	3.99
Max Chl Dpth (ft)	6.60	Hydr. Depth (ft)	1.64	5.21	1.44
Conv. Total (cfs)	36408.9	Conv. (cfs)	8836.3	20893.6	6679.0
Length Wtd. (ft)	266.73	Wetted Per. (ft)	156.91	42.67	105.36
Min Ch El (ft)	1621.60	Shear (lb/sq ft)	0.84	2.59	0.74
Alpha	1.78	Stream Power (lb/ft s)	2.62	22.76	2.95
Frctn Loss (ft)	2.24	Cum Volume (acre-ft)	157.88	152.80	241.68
C & E Loss (ft)	0.09	Cum SA (acres)	78.16	26.55	112.40

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1630.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1629.15	Reach Len. (ft)	285.32	272.62	229.06

Crit W.S. (ft)		Flow Area (sq ft)	114.08	254.76	39.12
E.G. Slope (ft/ft)	0.008471	Area (sq ft)	114.08	254.76	39.12
Q Total (cfs)	3300.00	Flow (cfs)	570.96	2547.92	181.12
Top Width (ft)	84.75	Top Width (ft)	31.62	41.33	11.80
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	5.00	10.00	4.63
Max Chl Dpth (ft)	7.55	Hydr. Depth (ft)	3.61	6.16	3.32
Conv. Total (cfs)	35854.2	Conv. (cfs)	6203.4	27682.9	1967.8
Length Wtd. (ft)	275.00	Wetted Per. (ft)	35.06	42.67	15.40
Min Ch El (ft)	1621.60	Shear (lb/sq ft)	1.72	3.16	1.34
Alpha	1.26	Stream Power (lb/ft s)	8.61	31.58	6.22
Frctn Loss (ft)	2.29	Cum Volume (acre-ft)	82.83	172.39	176.17
C & E Loss (ft)	0.13	Cum SA (acres)	22.96	26.58	53.59

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.79

INPUT
Description:
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9590.27	1628.3	9602.9	1628	9604.16	1627.98	9620.36	1627.76	9624.4	1627.7
9665.5	1627.2	9684.24	1626.88	9698.29	1626.67	9709.3	1626.5	9721.48	1626.33
9738.26	1626	9769.44	1625.62	9776.29	1625.54	9778.56	1625.52	9784.03	1625.48
9789.61	1625.4	9795.37	1625.37	9836.76	1624.88	9868.14	1624.54	9880.82	1624.39
9886.25	1624.3	9895.46	1624.23	9908.67	1624.12	9918.2	1624	9933.29	1623.72
9945.92	1623.5	9946.84	1623.52	9949.22	1623.61	9953.71	1623.69	9956.7	1623.75
9974.88	1624	9978.6	1624	9978.8	1624	9980.05	1624	9981.73	1624
9982.48	1624	9983.25	1623.99	9983.71	1623.99	9991.13	1622.6	9994.01	1622.06
9994.35	1622	9995.06	1621.86	9996.25	1621.64	9996.4	1621.65	9997.57	1621.82
10000	1621.51	10012.17	1621.19	10014.72	1621.05	10018.99	162210	10027.25	1623.8
10027.65	1623.88	10028.31	1624	10029.5	1624.23	10029.62	1624.31	10030.41	1624.23
10033.95	1624.17	10038.65	1624.02	10043.77	162410	10044.76	1624	10048	1624
10049.51	162410	10049.59	1624	10050	162410	10057.25	162410	10061.47	1624
10061.84	162410	10063.95	1623.99	10065.32	1623.97	10065.69	162410	10065.82	1623.96
10069.25	1623.55	10074.63	1622.97	10079.66	1623.69	10081.88	162410	10082.28	1624.07
10083.24	1624.21	10084.33	1624.01	10084.4	162410	10085.07	162410	10102.87	1623.77
10104.08	1623.78	10104.98	1623.81	10105.83	1623.81	10107.51	1623.91	10108.72	1624
10116.25	1624.48	10121.37	1624.89	10127.22	1625.32	10134.88	1625.91	10136.79	1625.99
10139	1626.15	10139.5	1626.17	10140.3	1626.21	10141.38	1626.21	10146.87	1626.22
10169.18	1626.52	10175.02	1626.66	10181.3	1626.82	10188.18	162710	10201.25	1627.32
10225.71	162810	10261.38	1629.31	10280.67	163010	10281.16	1630		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9590.27	.06	9983.71	.045	10029.62	.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

9983.71	10029.62	184.88	180.77	123.11	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1626.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1626.16	Reach Len. (ft)	184.88	180.77	123.11
Crit W.S. (ft)		Flow Area (sq ft)	367.99	182.11	214.12
E.G. Slope (ft/ft)	0.008578	Area (sq ft)	367.99	182.11	214.12
Q Total (cfs)	3300.00	Flow (cfs)	1081.35	1383.22	835.43
Top Width (ft)	409.38	Top Width (ft)	253.76	45.91	109.71
Vel Total (ft/s)	4.32	Avg. Vel. (ft/s)	2.94	7.60	3.90
Max Chl Dpth (ft)	5.11	Hydr. Depth (ft)	1.45	3.97	1.95
Conv. Total (cfs)	35630.7	Conv. (cfs)	11675.5	14934.9	9020.3
Length Wtd. (ft)	161.96	Wetted Per. (ft)	253.78	46.53	109.97
Min Ch El (ft)	1621.05	Shear (lb/sq ft)	0.78	2.10	1.04
Alpha	1.66	Stream Power (lb/ft s)	2.28	15.92	4.07
Frctn Loss (ft)	1.40	Cum Volume (acre-ft)	155.83	151.56	240.72
C & E Loss (ft)	0.04	Cum SA (acres)	76.81	26.28	111.84

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1628.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1627.18	Reach Len. (ft)	184.88	180.77	123.11
Crit W.S. (ft)		Flow Area (sq ft)	270.75	228.87	3.90
E.G. Slope (ft/ft)	0.008157	Area (sq ft)	270.75	228.87	3.90
Q Total (cfs)	3300.00	Flow (cfs)	1316.88	1974.19	8.93
Top Width (ft)	128.65	Top Width (ft)	81.41	45.91	1.33
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)	4.86	8.63	2.29
Max Chl Dpth (ft)	6.13	Hydr. Depth (ft)	3.33	4.99	2.93
Conv. Total (cfs)	36539.0	Conv. (cfs)	14581.0	21859.1	98.9
Length Wtd. (ft)	168.83	Wetted Per. (ft)	84.43	46.53	4.29
Min Ch El (ft)	1621.05	Shear (lb/sq ft)	1.63	2.50	0.46
Alpha	1.26	Stream Power (lb/ft s)	7.94	21.61	1.06
Frctn Loss (ft)	1.57	Cum Volume (acre-ft)	81.57	170.88	176.06
C & E Loss (ft)	0.02	Cum SA (acres)	22.59	26.30	53.56

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.76

INPUT
Description:
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9481.34	1626.9	9484.55	1626.93	9487.74	1626.92	9489.59	1626.91	9490.07	1626.91
9490.31	1626.9	9491.64	1626.9	9492.64	1626.9	9493.46	1626.89	9494.1	1626.89
9519.07	1626.7	9523.06	1626.65	9528.4	1626.63	9535.47	1626.6	9540.35	1626.59
9541.28	1626.6	9687.7	1626	9705.14	1626	9711.12	1626	9734.19	1626
9741.38	1626	9744.75	1626	9767.63	1626	9770.85	1626	9771.24	1626
9772.51	1626	9772.92	1626	9779.47	1625.89	9792.03	1625.7	9800.72	1625.58
9814.95	1625.3	9820.17	1625.25	9824.5	1625.17	9830.17	1624.97	9835.05	1624.79
9837.91	1624.7	9840.16	1624.6	9857.01	1624	9885.39	1622.83	9885.89	1622.81
9885.9	1622.8	9886.69	1622.8	9896.59	1622.73	9900.58	1622.68	9922.74	1622.61
9943.75	1622.5	9962.49	1622.4	9962.54	1622.38	9965.43	1622.46	9967.81	1622.57
9970.42	1622.6	9973.45	1622.72	9977.47	1622.79	9978.33	1622.81	9981.25	1622.86
9981.36	1622.8	9982.03	1622.79	9982.58	1622.73	9987.12	1622	9997.13	1620.49
9997.9	1620.4	9999.17	1620.2	9999.5	1620.15	10000	1620.41	10003.52	1620.64
10004.82	1620.81	10007.48	1621.13	10014.38	1622	10015.32	1622.12	10015.7	1622.16
10016.45	1622.31	10018.57	1622.51	10024.03	1623.17	10024.64	1623.17	10027.96	1623.19
10030.03	1623.21	10031.92	1623.16	10033.79	1623.15	10035.09	1623.16	10036.49	1623.15
10037.98	1623.11	10039.52	1623.07	10084.38	1623.69	10086.07	1623.69	10094.76	1623.57
10094.95	1623.61	10094.97	1623.54	10096.42	1623.31	10104.61	1622	10107.02	1621.63
10107.67	1621.51	10108.93	1621.33	10111.22	1621.69	10112.24	1621.86	10113.25	1622
10119.93	1623.11	10121.86	1623.35	10129.04	1623.32	10152.87	1623.16	10162.89	1622.01
10163.04	1622	10163.08	1621.99	10166.37	1621.61	10173.52	1621.96	10174.54	1622
10183.96	1622.41	10184.87	1622.48	10186.03	1622.54	10188	1622.65	10191.13	1622.65
10194.32	1622.61	10202.68	1622.62	10208.96	1623.2	10217.57	1622	10221.14	1624.33
10227.03	1624.81	10240.39	1625.25	10263.15	1622	10276.76	1626.51	10316.03	1628
10317.87	1628.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9481.34	.06	9981.25	.045	10024.03	.06	10094.97	.045	10121.86	.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9981.25 10024.03 161.68 172.64 149.88 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1625.20	Element			
Vel Head (ft)	0.35	Wt. n-Val.	0.060	0.045	0.054
W.S. Elev (ft)	1624.85	Reach Len. (ft)	161.68	172.64	149.88
Crit W.S. (ft)		Flow Area (sq ft)	265.62	138.39	371.95
E.G. Slope (ft/ft)	0.008771	Area (sq ft)	265.62	138.39	371.95
Q Total (cfs)	3300.00	Flow (cfs)	910.61	929.69	1459.70
Top Width (ft)	394.94	Top Width (ft)	147.75	42.78	204.40
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)	3.43	6.72	3.92
Max Chl Dpth (ft)	4.70	Hydr. Depth (ft)	1.80	3.23	1.82
Conv. Total (cfs)	35237.2	Conv. (cfs)	9723.4	9927.2	15586.6
Length Wtd. (ft)	157.54	Wetted Per. (ft)	147.81	43.22	205.00
Min Ch El (ft)	1620.15	Shear (lb/sq ft)	0.98	1.75	0.99
Alpha	1.26	Stream Power (lb/ft s)	3.37	11.78	3.90
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	154.49	150.90	239.89
C & E Loss (ft)	0.04	Cum SA (acres)	75.96	26.10	111.39

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1626.43	Element			
Vel Head (ft)	0.76	Wt. n-Val.	0.060	0.045	0.053
W.S. Elev (ft)	1625.67	Reach Len. (ft)	161.68	172.64	149.88
Crit W.S. (ft)		Flow Area (sq ft)	67.34	173.47	272.96
E.G. Slope (ft/ft)	0.010670	Area (sq ft)	67.34	173.47	272.96
Q Total (cfs)	3300.00	Flow (cfs)	330.82	1494.25	1474.93
Top Width (ft)	172.06	Top Width (ft)	22.04	42.78	107.24
Vel Total (ft/s)	6.42	Avg. Vel. (ft/s)	4.91	8.61	5.40
Max Chl Dpth (ft)	5.52	Hydr. Depth (ft)	3.06	4.05	2.55
Conv. Total (cfs)	31947.7	Conv. (cfs)	3202.7	14466.0	14278.9
Length Wtd. (ft)	158.47	Wetted Per. (ft)	25.30	43.22	109.99
Min Ch El (ft)	1620.15	Shear (lb/sq ft)	1.77	2.67	1.65
Alpha	1.19	Stream Power (lb/ft s)	8.71	23.03	8.93
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	80.85	170.05	175.67
C & E Loss (ft)	0.12	Cum SA (acres)	22.37	26.12	53.41

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.73

INPUT
Description:
Station Elevation Data num= 131

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

9675.66	1625.9	9681.38	1625.93	9686.88	1625.9	9690.76	1625.83	9705.38	1626
9708.82	1626	9715.78	1626	9718.92	1626	9721.46	1626	9740.16	1626
9742.37	1626	9747.58	1626	9750.02	1626	9752.7	1626	9756.1	1626
9775.89	1626	9778.51	1626	9780.26	1626	9817.55	1625.48	9828	1625.42
9833.79	1625.4	9840.61	1625.29	9906.56	1624.49	9906.62	1624.49	9906.74	1624.48
9908.68	1624.3	9915.06	1624	9919.71	1623.68	9919.77	1623.67	9923.4	1623.34
9927.8	1622.9	9929.09	1622.82	9930.83	1622.74	9938.25	1622	9947.01	1621.03
9957.4	1620	9960.71	1619.66	9960.9	1619.64	9961.62	1619.75	9963.53	1620
9967.01	1620.5	9970.21	1620.98	9972.1	1621.24	9973.52	1621.46	9980.55	1621.67
9986.19	1621.8	9990.94	1620.75	9992.11	1620.47	9994.03	1620	9995.4	1619.68
9998.78	1618.9	10000	1619.111	10000.85	1619.341	10002.13	1619.51	10002.99	1619.63
10005.65	1620	10010.78	1620.71	10011.71	1620.841	10014.25	1621.281	10017.34	1621.81
10020.12	1621.81	10020.47	1621.831	10021.25	1621.831	10025.98	1621.871	10028.12	1621.85
10032.44	1621.81	10037.65	1621.791	10043.68	1621.661	10046.05	1621.631	10051.89	1621.57
10052.45	1621.61	10056.95	1621.481	10058.94	1621.371	10059.12	1621.351	10059.27	1621.34
10059.44	1621.31	10062.48	1621.211	10063.22	1621.181	10064.18	1621.141	10064.98	1621.1
10069.41	1620.91	10071.32	1620.831	10075.12	1620.671	10079.93	1620.421	10081.33	1620.36
10082.65	1620.31	10088.69	1619.941	10089.18	1619.941	10090.07	1620.051	10092.89	1620.27
10106.65	1621.21	10106.94	1621.291	10107.41	1621.281	10108.77	1621.411	10110.32	1621.55
10111.43	1621.61	10112.53	1621.61	10113.35	1621.621	10113.97	1621.631	10114.62	1621.64
10135.94	1621.61	10142.25	1621.461	10146.16	1621.37	10154.5	1620.51	10160.76	1620
10162.65	1619.81	10163.42	1619.781	10164.78	1619.861	10165.38	1619.96	10165.7	1619.95
10172.18	1619.51	10175.11	1619.31	10181	1619.021	10181.12	1619.011	10181.27	1619
10181.38	1619	10188.17	1620	10190.13	1620.341	10192.94	1620.91	10195.23	1620.9
10205.45	1622	10205.88	1622	10206.86	1622.111	10210.98	1622.51	10222.39	1623.46
10238.49	1623.91	10243.06	1624	10249.27	1624.321	10256.25	1624.591	10287.51	1626
10300.75	1626.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9675.66	.06	9986.19	.045	10017.34	.061	10111.43	.061	10146.16	.045
10192.94	.055								

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9986.19	10017.34	177.18	267.76	153.48	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1624.24	Element			
Vel Head (ft)	0.24	Wt. n-Val.	0.060	0.045	0.053
W.S. Elev (ft)	1624.00	Reach Len. (ft)	177.18	267.76	153.48
Crit W.S. (ft)		Flow Area (sq ft)	168.36	113.52	599.71
E.G. Slope (ft/ft)	0.004238	Area (sq ft)	168.36	113.52	599.71
Q Total (cfs)	3300.00	Flow (cfs)	480.45	571.05	2248.49
Top Width (ft)	328.03	Top Width (ft)	71.15	31.15	225.73
Vel Total (ft/s)	3.74	Avg. Vel. (ft/s)	2.85	5.03	3.75
Max Chl Dpth (ft)	5.10	Hydr. Depth (ft)	2.37	3.64	2.66
Conv. Total (cfs)	50688.9	Conv. (cfs)	7379.9	8771.5	34537.5
Length Wtd. (ft)	199.91	Wetted Per. (ft)	71.49	31.71	226.26
Min Ch El (ft)	1618.90	Shear (lb/sq ft)	0.62	0.95	0.70
Alpha	1.08	Stream Power (lb/ft s)	1.78	4.76	2.63
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	153.68	150.40	238.22
C & E Loss (ft)	0.00	Cum SA (acres)	75.56	25.95	110.65

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1625.18	Element			
Vel Head (ft)	0.36	Wt. n-Val.		0.045	0.056
W.S. Elev (ft)	1624.81	Reach Len. (ft)	177.18	267.76	153.48
Crit W.S. (ft)		Flow Area (sq ft)		138.85	561.93
E.G. Slope (ft/ft)	0.005120	Area (sq ft)		138.85	561.93
Q Total (cfs)	3300.00	Flow (cfs)		826.43	2473.57
Top Width (ft)	183.64	Top Width (ft)		31.15	152.49
Vel Total (ft/s)	4.71	Avg. Vel. (ft/s)		5.95	4.40
Max Chl Dpth (ft)	5.91	Hydr. Depth (ft)		4.46	3.69
Conv. Total (cfs)	46118.4	Conv. (cfs)		11549.6	34568.8
Length Wtd. (ft)	206.81	Wetted Per. (ft)		34.73	157.86
Min Ch El (ft)	1618.90	Shear (lb/sq ft)		1.28	1.14
Alpha	1.06	Stream Power (lb/ft s)		7.61	5.01
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	80.73	169.43	174.23
C & E Loss (ft)	0.03	Cum SA (acres)	22.33	25.97	52.96

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.70

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9655.33	1624.4	9669.94	1624.32	9672.79	1624.31	9674.01	1624.31	9681.2	1624.29
9696.22	1624.3	9701.69	1624.25	9705.42	1624.24	9714.58	1624.21	9739	1624.15
9785.01	1624	9785.03	1624	9785.05	1624	9785.09	1624	9785.28	1624
9786.59	1624	9787.43	1623.94	9792.42	1623.59	9801.24	1623.11	9807.49	1622.75
9820.35	1622	9823.02	1621.83	9845.62	1620	9850.17	1619.54	9851.38	1619.4
9864.06	1619.6	9876.28	1619.82	9879.85	1619.88	9881.47	1619.91	9882.01	1619.93
9886.21	1620	9900.86	1620.02	9900.87	1620.02	9902.51	1620.03	9903.23	1620.03
9904.8	1620	9923.72	1620	9929.04	1619.89	9929.34	1619.88	9929.69	1619.87
9930.05	1619.9	9930.74	1619.84	9931.36	1619.83	9932.25	1619.81	9933.29	1619.78
9934.54	1619.8	9940.84	1619.59	9964.99	1619	9969.09	1618.87	9977.45	1618.61
9979.89	1618.5	9980.22	1618.47	9980.88	1618.37	9982.69	1618	9988.63	1616.72

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  9992.2    1616 9994.05 1615.65 9994.63 1615.54   10000  1615.6 10001.9 1615.71
10005.12  1615.810005.34 1615.8710005.55    161610012.52 1617.5310014.51    1618
10015.25  1618.210027.24 1619.7610029.42    162010032.77 1620.38 10040.9 1621.22
10047.39    162210051.06 1622.4110053.68  1622.710062.22 1623.0810081.72    1624
10127.18  1625.510136.11 1625.81 10141.1 1625.97

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9655.33     .06 9923.72     .06 9979.89    .04510053.68    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9979.8910053.68           195.28  254.18  297.16            .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1623.54   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.25    Wt. n-Val.               0.060      0.045     0.055
  W.S. Elev (ft)            1623.29   Reach Len. (ft)          195.28     254.18    297.16
  Crit W.S. (ft)                      Flow Area (sq ft)        564.82     342.78      3.92
  E.G. Slope (ft/ft)       0.002866   Area (sq ft)             564.82     342.78      3.92
  Q Total (cfs)             3300.00   Flow (cfs)              1623.39    1674.07     2.54
  Top Width (ft)             268.86   Top Width (ft)           182.01      73.79    13.06
  Vel Total (ft/s)             3.62   Avg. Vel. (ft/s)           2.87       4.88     0.65
  Max Chl Dpth (ft)            7.75   Hydr. Depth (ft)           3.10       4.65     0.30
  Conv. Total (cfs)         61639.3   Conv. (cfs)             30322.5    31269.2     47.5
  Length Wtd. (ft)           231.54   Wetted Per. (ft)         182.19      74.65    13.07
  Min Ch El (ft)            1615.54   Shear (lb/sq ft)           0.55       0.82     0.05
  Alpha                        1.23   Stream Power (lb/ft s)     1.59       4.01     0.03
  Frctn Loss (ft)              0.80   Cum Volume (acre-ft)     152.19     148.99    237.16
  C & E Loss (ft)              0.02   Cum SA (acres)            75.04      25.63    110.23

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1624.49   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.28    Wt. n-Val.               0.060      0.045     0.055
  W.S. Elev (ft)            1624.21   Reach Len. (ft)          195.28     254.18    297.16
  Crit W.S. (ft)                      Flow Area (sq ft)        416.68     410.32      2.01
  E.G. Slope (ft/ft)       0.002202   Area (sq ft)             416.68     410.32      2.01
  Q Total (cfs)             3300.00   Flow (cfs)              1317.67    1980.29     2.04
  Top Width (ft)             165.04   Top Width (ft)            89.89      73.79     1.36
  Vel Total (ft/s)             3.98   Avg. Vel. (ft/s)           3.16       4.83     1.01
  Max Chl Dpth (ft)            8.67   Hydr. Depth (ft)           4.64       5.56     1.48
  Conv. Total (cfs)         70319.9   Conv. (cfs)             28078.4    42198.1     43.5
  Length Wtd. (ft)           235.48   Wetted Per. (ft)          94.12      74.65     2.81
  Min Ch El (ft)            1615.54   Shear (lb/sq ft)           0.61       0.76     0.10
  Alpha                        1.13   Stream Power (lb/ft s)     1.92       3.65     0.10
  Frctn Loss (ft)              0.68   Cum Volume (acre-ft)      79.88     167.74    173.24
  C & E Loss (ft)              0.03   Cum SA (acres)            22.15      25.65     52.69

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 3.65

INPUT
Description:
Station Elevation Data    num=      87
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9713.47  1623.9 9731.48 1623.46 9738.83 1623.26 9744.52 1623.11 9776.96    1622
  9787.4  1621.6 9792.39 1621.47 9793.97 1621.41 9794.59 1621.36 9797.03 1621.12
 9810.45    1620 9815.51 1619.37 9821.56 1618.62 9826.34    1618 9832.98 1617.19
 9833.66  1617.1 9835.59 1617.27 9850.19 1617.89 9851.47 1617.95 9851.91 1617.97
 9852.08    1618  9852.2 1617.98 9852.31 1617.98 9852.95    1618 9866.35 1618.11
  9872.5  1618.1 9890.58    1618 9904.88 1617.73 9905.67 1617.72 9906.66 1617.71
 9907.83  1617.7 9909.12 1617.67 9911.04 1617.64 9912.27 1617.63 9913.33 1617.61
 9925.81  1617.4 9927.77 1617.38 9929.08 1617.35 9932.79 1617.27 9940.27 1617.09
 9945.35    1617 9945.57 1616.97 9947.32 1617.11 9960.13    1618  9962.1 1618.14
 9965.17  1618.3 9965.28 1618.31 9965.62 1618.23 9966.77    1618 9974.72  1616.3
 9976.01    1616 9976.38 1615.92  9980.5 1615.07 9981.24  1615.1 9986.72 1615.32
  9991.3  1614.9 9992.81 1614.65 9993.77 1614.48   10000 1614.2610000.48 1614.26
10007.75    161410008.25 1613.9810009.22 1613.9710009.36 1613.95 10009.4 1613.95
10009.88  1614.110017.21    161610022.28 1617.2410025.26    161810026.93 1618.42
10028.42  1618.610028.68 1618.6110029.36 1618.6510032.71 1618.5710034.18 1618.54
10093.87  1619.810101.48    162010104.01 1620.09 10157.3 1621.89 10157.4 1621.89
10157.65  1621.910163.65    162210164.22    162210167.89 1622.0210213.54 1623.22
10226.53  1623.5   10242    1624

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9713.47     .06 9866.35     .06 9965.28    .04510029.36    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9965.2810029.36           198.65  205.64  187.36            .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1622.72   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.46    Wt. n-Val.               0.060      0.045     0.055
  W.S. Elev (ft)            1622.26   Reach Len. (ft)          198.65     205.64    187.36
```

Crit W.S. (ft)		Flow Area (sq ft)	721.84	420.88	297.29
E.G. Slope (ft/ft)	0.003826	Area (sq ft)	721.84	420.88	297.29
Q Total (cfs)	6500.00	Flow (cfs)	2723.75	2984.16	792.08
Top Width (ft)	407.56	Top Width (ft)	195.88	64.08	147.60
Vel Total (ft/s)	4.51	Avg. Vel. (ft/s)	3.77	7.09	2.66
Max Chl Dpth (ft)	8.31	Hydr. Depth (ft)	3.69	6.57	2.01
Conv. Total (cfs)	105091.7	Conv. (cfs)	44037.5	48247.8	12806.4
Length Wtd. (ft)	200.29	Wetted Per. (ft)	196.22	65.07	147.66
Min Ch El (ft)	1613.95	Shear (lb/sq ft)	0.88	1.54	0.48
Alpha	1.47	Stream Power (lb/ft s)	3.32	10.95	1.28
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	149.31	146.77	236.13
C & E Loss (ft)	0.08	Cum SA (acres)	74.19	25.22	109.68

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1623.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1623.20	Reach Len. (ft)	198.65	205.64	187.36
Crit W.S. (ft)		Flow Area (sq ft)	527.15	480.97	175.43
E.G. Slope (ft/ft)	0.003397	Area (sq ft)	527.15	480.97	175.43
Q Total (cfs)	6500.00	Flow (cfs)	2298.26	3512.83	688.91
Top Width (ft)	200.00	Top Width (ft)	95.28	64.08	40.64
Vel Total (ft/s)	5.49	Avg. Vel. (ft/s)	4.36	7.30	3.93
Max Chl Dpth (ft)	9.25	Hydr. Depth (ft)	5.53	7.51	4.32
Conv. Total (cfs)	111515.2	Conv. (cfs)	39429.5	60266.8	11819.0
Length Wtd. (ft)	201.23	Wetted Per. (ft)	100.43	65.07	44.55
Min Ch El (ft)	1613.95	Shear (lb/sq ft)	1.11	1.57	0.84
Alpha	1.23	Stream Power (lb/ft s)	4.85	11.45	3.28
Frctn Loss (ft)	1.12	Cum Volume (acre-ft)	77.76	165.14	172.63
C & E Loss (ft)	0.13	Cum SA (acres)	21.73	25.25	52.55

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.61

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9825.74	1622	9880.74	1620.1	9882.83	1620.01	9883.22	1620	9904.72	1618.89
9909.6	1618.74	9912.48	1618.3	9913.69	1618.22	9914.26	1618.17	9917.09	1618
9948.8	1616.23	9953.45	1616	9959	1615.67	9962.52	1615.48	9967.86	1615.64
9979.07	1615.95	9981.37	1615.2	9985.3	1614	9988.92	1612.84	9991.59	1612
9993.25	1611.42	9993.66	1611.31	10001.69	1611.92	10002.35	1611.97	10002.49	1611.98
10002.56	1611.99	10002.72	1612	10002.79	1612.01	10002.84	1612.01	10002.9	1612.01
10006.32	1612.28	10007	1612.31	10007.06	1612.34	10010.84	1613.04	10015.61	1614
10021.56	1615.14	10023.82	1615.51	10024.19	1615.62	10025.84	1616	10026.77	1616.17
10028.21	1616.45	10034.05	1616.31	10093.37	1617.51	10094.6	1617.51	10101.45	1617.79
10107.32	1618	10119.8	1618.3	10126.4	1618.51	10129.49	1618.59	10164.86	1620
10189.14	1620.74	10198.98	1621	10219.07	1621.69	10222.91	1621.81		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9825.74	.06	9979.07	.045	10028.21	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9979.07	10028.21	390.89	389.3 386.91	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1621.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1620.19	Reach Len. (ft)	390.89	389.30	386.91
Crit W.S. (ft)		Flow Area (sq ft)	268.45	330.76	326.07
E.G. Slope (ft/ft)	0.009602	Area (sq ft)	268.45	330.76	326.07
Q Total (cfs)	6500.00	Flow (cfs)	1248.90	3755.62	1495.48
Top Width (ft)	293.05	Top Width (ft)	100.98	49.14	142.93
Vel Total (ft/s)	7.02	Avg. Vel. (ft/s)	4.65	11.35	4.59
Max Chl Dpth (ft)	8.89	Hydr. Depth (ft)	2.66	6.73	2.28
Conv. Total (cfs)	66334.2	Conv. (cfs)	12745.3	38327.1	15261.7
Length Wtd. (ft)	388.71	Wetted Per. (ft)	101.13	50.32	142.99
Min Ch El (ft)	1611.30	Shear (lb/sq ft)	1.59	3.94	1.37
Alpha	1.69	Stream Power (lb/ft s)	7.40	44.74	6.27
Frctn Loss (ft)	2.74	Cum Volume (acre-ft)	147.05	144.99	234.79
C & E Loss (ft)	0.19	Cum SA (acres)	73.52	24.96	109.06

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1622.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1620.63	Reach Len. (ft)	390.89	389.30	386.91
Crit W.S. (ft)		Flow Area (sq ft)	123.04	352.43	187.99
E.G. Slope (ft/ft)	0.010794	Area (sq ft)	123.04	352.43	187.99
Q Total (cfs)	6500.00	Flow (cfs)	816.14	4426.19	1257.67
Top Width (ft)	121.78	Top Width (ft)	25.04	49.14	47.60
Vel Total (ft/s)	9.80	Avg. Vel. (ft/s)	6.63	12.56	6.69
Max Chl Dpth (ft)	9.33	Hydr. Depth (ft)	4.91	7.17	3.95
Conv. Total (cfs)	62562.6	Conv. (cfs)	7855.4	42602.2	12105.1
Length Wtd. (ft)	388.82	Wetted Per. (ft)	29.73	50.32	51.09
Min Ch El (ft)	1611.30	Shear (lb/sq ft)	2.79	4.72	2.48
Alpha	1.27	Stream Power (lb/ft s)	18.50	59.28	16.59
Frctn Loss (ft)	2.69	Cum Volume (acre-ft)	76.28	163.17	171.85
C & E Loss (ft)	0.32	Cum SA (acres)	21.46	24.98	52.36

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.54

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9832.04	1622	9832.05	1622	9866.89	1620.82	9892.47	1620	9912.33	1618.81
9926.26	1618	9939.21	1617.1	9941.3	1616.94	9943.94	1616.75	9946.26	1616.57
9954.21	1616	9955.05	1615.99	9955.06	1615.99	9955.11	1615.99	9959.09	1615.46
9971.85	1614	9977.15	1613.02	9979.33	1612.45	9979.81	1612.37	9981.48	1612
9991.46	1610.2	9992.52	1610	9992.92	1609.94	9993.18	1609.89	9999.18	1610
9999.42	1610	9999.45	1610	10000	161010003.75		161010004.36		1610
10005.93	1610	10007.7	161010008.63		1610.0610012.15		1610.2210012.65		1610.25
10020.81	1611.310027.35		161210033.89		161310035.57		1613.2910038.15		1613.68
10038.3	1613.710040.99		1613.9210041.29		1613.9410042.62		161410043.84		1614
10046.26	1613.910048.79		1613.7710052.42		1613.8310053.62		1613.8210054.17		1613.8
10054.86	1613.810075.39		1613.7710084.07		1613.7810099.34		161410102.85		1614
10105.8	1614	10114.6	1613.8610115.52		1613.8510122.68		1613.8210133.95		1613.68
10134.27	1613.710134.44		1613.6810134.51		1613.6810134.56		1613.6810140.57		1614
10144.52	1614.210149.28		1614.5210158.52		1614.6410160.18		1614.6510162.26		1614.67
10165.31	1614.710169.11		1614.8110175.79		1614.9710189.17		1615.2810189.19		1615.28
10193.93	1615.810195.26		1615.9610195.63		161610201.93		1616.5710221.65		1618
10221.69	161810221.74		161810239.22		1618.9410244.72		1619.1910257.25		1619.59
10260.81	1619.710268.12		1619.99						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9832.04	.06	9955.05	.04510042.62		.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9955.0510042.62 435.96 440.05 442.16 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1618.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1617.89	Reach Len. (ft)	435.96	440.05	442.16
Crit W.S. (ft)		Flow Area (sq ft)	26.35	501.96	587.09
E.G. Slope (ft/ft)	0.005383	Area (sq ft)	26.35	501.96	587.09
Q Total (cfs)	6500.00	Flow (cfs)	46.75	3872.02	2581.23
Top Width (ft)	292.37	Top Width (ft)	27.25	87.57	177.55
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)	1.77	7.71	4.40
Max Chl Dpth (ft)	8.00	Hydr. Depth (ft)	0.97	5.73	3.31
Conv. Total (cfs)	88597.3	Conv. (cfs)	637.2	52777.0	35183.1
Length Wtd. (ft)	440.59	Wetted Per. (ft)	27.32	88.34	177.71
Min Ch El (ft)	1609.89	Shear (lb/sq ft)	0.32	1.91	1.11
Alpha	1.27	Stream Power (lb/ft s)	0.58	14.73	4.88
Frctn Loss (ft)	2.77	Cum Volume (acre-ft)	145.73	141.27	230.74
C & E Loss (ft)	0.06	Cum SA (acres)	72.94	24.35	107.64

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1619.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1618.69	Reach Len. (ft)	435.96	440.05	442.16
Crit W.S. (ft)		Flow Area (sq ft)	8.15	571.42	373.84
E.G. Slope (ft/ft)	0.004835	Area (sq ft)	8.15	571.42	373.84
Q Total (cfs)	6500.00	Flow (cfs)	17.95	4554.86	1927.19
Top Width (ft)	168.05	Top Width (ft)	3.10	87.57	77.38
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)	2.20	7.97	5.16

Max Chl Dpth (ft)	8.80	Hydr. Depth (ft)	2.63	6.53	4.83
Conv. Total (cfs)	93475.2	Conv. (cfs)	258.2	65502.5	27714.5
Length Wtd. (ft)	440.65	Wetted Per. (ft)	5.63	88.34	82.24
Min Ch El (ft)	1609.89	Shear (lb/sq ft)	0.44	1.95	1.37
Alpha	1.13	Stream Power (lb/ft s)	0.96	15.56	7.07
Frctn Loss (ft)	2.59	Cum Volume (acre-ft)	75.69	159.04	169.36
C & E Loss (ft)	0.06	Cum SA (acres)	21.33	24.37	51.80

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.46

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9842.22	1617.9	9861.63	1617.15	9889.72	1616	9925.71	1614.04	9926.49	1614
9931.41	1613.7	9946.39	1612.61	9948.8	1612.35	9950.56	1612.16	9952.02	1612
9959.18	1611.2	9964.66	1610.64	9969.13	1610.23	9971.96	1610	9976.94	1609.61
9979.06	1609.4	9980.67	1608.81	9982.76	1608	9986.86	1606.4	9987.92	1606
9988.43	1605.8	9989.12	1605.57	9989.96	1605.47	9990.94	1605.26	10000	1605.37
10005.42	1605.510009.65		1605.610010.06		1605.710010.85		1605.8810011.07		1605.94
10011.17	160610011.21		1605.9710011.23		1605.98	10011.3	160610012.09		1606.19
10019.54	1608	10021.1	1608.410027.91		161010029.48		1610.4210030.23		1610.66
10030.3	1610.710030.36		1610.6610030.46		1610.6710030.55		1610.6510034.43		1610.81
10035.73	1610.8	10106.9	1610.54	10110.9	1610.5810110.91		1610.5810110.96		1610.58
10110.98	1610.610112.79		1610.9710113.98		1611.1910119.67		161210134.56		1613.4
10141.54	161410153.74		161510165.85		161610171.58		1616.4210181.15		1617.1
10192.5	161810196.91		1618.2710198.61		1618.35	10200.7	1618.4610211.23		1619.16
10228.12	162010229.27		1620.03						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9842.22	.06	9979.06	.045	10030.3	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9979.06	10030.3	267.6	296.32	322.93	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1615.73	Element			
Vel Head (ft)	1.28	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1614.45	Reach Len. (ft)	267.60	296.32	322.93
Crit W.S. (ft)		Flow Area (sq ft)	139.88	386.82	364.42
E.G. Slope (ft/ft)	0.007451	Area (sq ft)	139.88	386.82	364.42
Q Total (cfs)	6500.00	Flow (cfs)	519.41	4167.92	1812.67
Top Width (ft)	228.85	Top Width (ft)	60.88	51.24	116.73
Vel Total (ft/s)	7.29	Avg. Vel. (ft/s)	3.71	10.77	4.97
Max Chl Dpth (ft)	9.19	Hydr. Depth (ft)	2.30	7.55	3.12
Conv. Total (cfs)	75303.5	Conv. (cfs)	6017.4	48285.9	21000.1
Length Wtd. (ft)	302.30	Wetted Per. (ft)	61.10	52.63	116.98
Min Ch El (ft)	1605.26	Shear (lb/sq ft)	1.06	3.42	1.45
Alpha	1.55	Stream Power (lb/ft s)	3.95	36.84	7.21
Frctn Loss (ft)	2.04	Cum Volume (acre-ft)	144.90	136.78	225.91
C & E Loss (ft)	0.13	Cum SA (acres)	72.50	23.64	106.14

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1616.85	Element			
Vel Head (ft)	1.45	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1615.40	Reach Len. (ft)	267.60	296.32	322.93
Crit W.S. (ft)		Flow Area (sq ft)		435.70	297.36
E.G. Slope (ft/ft)	0.007264	Area (sq ft)		435.70	297.36
Q Total (cfs)	6500.00	Flow (cfs)		4669.56	1830.44
Top Width (ft)	114.44	Top Width (ft)		51.24	63.20
Vel Total (ft/s)	8.87	Avg. Vel. (ft/s)		10.72	6.16
Max Chl Dpth (ft)	10.14	Hydr. Depth (ft)		8.50	4.71
Conv. Total (cfs)	76263.1	Conv. (cfs)		54786.9	21476.2
Length Wtd. (ft)	304.19	Wetted Per. (ft)		58.63	68.03
Min Ch El (ft)	1605.26	Shear (lb/sq ft)		3.37	1.98
Alpha	1.19	Stream Power (lb/ft s)		36.12	12.20
Frctn Loss (ft)	1.98	Cum Volume (acre-ft)	75.65	153.96	165.95
C & E Loss (ft)	0.10	Cum SA (acres)	21.32	23.67	51.09

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.40

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9781.06	1616	9822.91	1614.86	9854.08	1614	9869.67	1613.19	9872.55	1613.09

9877.05	1612.9	9883.4	1612.62	9896.85	1612	9912.11	1611.34	9913.25	1611.29	
9914.75	1611.1	9916.06	1610.91	9917.43	1610.67	9918.22	1610.54	9918.76	1610.47	
9922.45	1610	9926.53	1609.41	9930.32	1608.89	9939.23	1609.09	9968.21	1608.92	
9970.35	1608.8	9970.57	1608.76	9971.46	1608.56	9973.61	1608	9981.86	1606.16	
9982.41	1606	9983.01	1605.84	9983.21	1605.8	9984.73	1605.47	9987.2	1604.93	
9994.96	1604.6	10000	1604.3510003.63		1604.110006.33		1604.7110012.22		1606	
10019.07	1607.510020.95		1607.9610021.82		1607.9810022.45		160810032.47		1608.15	
10043.27	1608.310060.77		1608.5310064.37		1608.5810069.85		1608.6610076.75		1608.75	
10085.89	1608.910096.09		1609.0310107.37		1609.1610118.92		1609.3110133.36		1609.51	
10142.19	1609.610143.27		1609.8110144.07		1609.9110144.74		161010154.75		1611.41	
10159.23	161210162.87		1612.4810174.31		161410182.95		1615.0910191.93		1616	
10213.93	1617.910215.48		161810216.09		1618.04					

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9781.06	.06	9970.35	.04510020.95		.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9970.3510020.95		401.74	459.84 480.49	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1613.55	Element			
Vel Head (ft)	0.84	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1612.72	Reach Len. (ft)	401.74	459.84	480.49
Crit W.S. (ft)		Flow Area (sq ft)	217.17	349.08	507.10
E.G. Slope (ft/ft)	0.006172	Area (sq ft)	217.17	349.08	507.10
Q Total (cfs)	6500.00	Flow (cfs)	763.82	3243.94	2492.23
Top Width (ft)	283.45	Top Width (ft)	89.14	50.60	143.70
Vel Total (ft/s)	6.06	Avg. Vel. (ft/s)	3.52	9.29	4.91
Max Chl Dpth (ft)	8.62	Hydr. Depth (ft)	2.44	6.90	3.53
Conv. Total (cfs)	82734.1	Conv. (cfs)	9722.2	41289.9	31721.9
Length Wtd. (ft)	449.91	Wetted Per. (ft)	89.35	51.49	143.93
Min Ch El (ft)	1604.10	Shear (lb/sq ft)	0.94	2.61	1.36
Alpha	1.47	Stream Power (lb/ft s)	3.29	24.28	6.67
Frctn Loss (ft)	2.67	Cum Volume (acre-ft)	143.80	134.28	222.68
C & E Loss (ft)	0.07	Cum SA (acres)	72.04	23.30	105.18

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1614.77	Element			
Vel Head (ft)	1.12	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1613.65	Reach Len. (ft)	401.74	459.84	480.49
Crit W.S. (ft)		Flow Area (sq ft)	62.96	396.52	389.95
E.G. Slope (ft/ft)	0.005872	Area (sq ft)	62.96	396.52	389.95
Q Total (cfs)	6500.00	Flow (cfs)	275.10	3912.63	2312.27
Top Width (ft)	139.77	Top Width (ft)	13.35	50.60	75.82
Vel Total (ft/s)	7.65	Avg. Vel. (ft/s)	4.37	9.87	5.93
Max Chl Dpth (ft)	9.55	Hydr. Depth (ft)	4.72	7.84	5.14
Conv. Total (cfs)	84824.1	Conv. (cfs)	3590.0	51059.3	30174.8
Length Wtd. (ft)	451.21	Wetted Per. (ft)	18.02	51.49	80.44
Min Ch El (ft)	1604.10	Shear (lb/sq ft)	1.28	2.82	1.78
Alpha	1.23	Stream Power (lb/ft s)	5.60	27.86	10.54
Frctn Loss (ft)	2.68	Cum Volume (acre-ft)	75.46	151.13	163.40
C & E Loss (ft)	0.09	Cum SA (acres)	21.28	23.32	50.57

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.31

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9676.2	1614	9680.19	1613.76	9709.76	1612	9736.92	1610.19	9739.8	1610
9742.92	1609.7	9764.99	1608	9768.82	1607.67	9770.17	1607.55	9772.58	1607.34
9773.04	1607.3	9775.74	1606.88	9779.73	1606.25	9780.45	1606.13	9781.38	1606
9782.88	1605.8	9783.5	1605.71	9787.85	1605.11	9791.87	1604.52	9793.53	1604.67
9796.81	1604.9	9810.28	1606	9811.65	1606.11	9819.15	1606.68	9821.55	1606.85
9824.44	1607.1	9835.38	1606.93	9840.19	1606.88	9850.46	1606.78	9856.89	1606.7
9869.42	1606.6	9869.77	1606.61	9871.18	1606.67	9872.8	1606.73	9880.81	1607.04
9895.41	1607.6	9899.08	1607.74	9901.23	1607.83	9902.48	1607.88	9905.63	1607.99
9906.41	1608	9908.4	1608.08	9909.55	1608.12	9910.37	1608.06	9911.46	1608
9924.21	1607	9928.31	1606.68	9931.42	1606.87	9948.97	1607.99	9959.39	1607.3
9973.52	1606.3	9973.89	1606.25	9974.8	1606	9977.21	1605.38	9983.02	1604
9984.35	1603.7	9991.03	1602.03	9991.36	1602.02	9994.22	1602	9994.47	1602
9994.64	1602	9995.28	1602	9998.94	1601.99	9999.14	1601.98	9999.48	1601.98
10000	160210001.81		1601.9710002.81		1601.95	10005.6	1601.9310007.24		1601.91
10007.3	1601.910007.44		1601.9510007.49		1601.9710007.51		1601.97	10007.6	1602
10011.16	1602.810013.02		1603.2810013.89		1603.4810015.73		160410017.05		1604.35
10018.49	1604.710021.06		1605.27	10023.7	1605.4310026.04		1605.5410030.24		1605.79
10034.49	160610039.47		1606.3110041.37		1606.3910044.87		1606.5510054.05		1607.04
10054.74	1607.210060.93		160810075.76		1609.8710076.85		161010077.71		1610.11
10086.5	1611.110093.46		161210111.83		1613.3910117.39		1613.82		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9676.2	.06	9824.44	.06	9948.97	.04510021.06		.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9948.9710021.06 366.29 396.52 408.42 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1610.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1610.21	Reach Len. (ft)	366.29	396.52	408.42
Crit W.S. (ft)		Flow Area (sq ft)	655.66	405.75	171.11
E.G. Slope (ft/ft)	0.005724	Area (sq ft)	655.66	405.75	171.11
Q Total (cfs)	6500.00	Flow (cfs)	2600.53	3178.50	720.97
Top Width (ft)	342.04	Top Width (ft)	212.39	72.09	57.56
Vel Total (ft/s)	5.27	Avg. Vel. (ft/s)	3.97	7.83	4.21
Max Chl Dpth (ft)	8.31	Hydr. Depth (ft)	3.09	5.63	2.97
Conv. Total (cfs)	85910.6	Conv. (cfs)	34371.3	42010.3	9529.0
Length Wtd. (ft)	383.69	Wetted Per. (ft)	212.94	73.08	57.82
Min Ch El (ft)	1601.90	Shear (lb/sq ft)	1.10	1.98	1.06
Alpha	1.38	Stream Power (lb/ft s)	4.36	15.54	4.46
Frctn Loss (ft)	2.67	Cum Volume (acre-ft)	139.77	130.29	218.94
C & E Loss (ft)	0.03	Cum SA (acres)	70.65	22.65	104.07

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1612.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.82	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1611.19	Reach Len. (ft)	366.29	396.52	408.42
Crit W.S. (ft)		Flow Area (sq ft)	518.93	475.95	
E.G. Slope (ft/ft)	0.005978	Area (sq ft)	518.93	475.95	
Q Total (cfs)	6500.00	Flow (cfs)	2476.67	4023.33	
Top Width (ft)	201.06	Top Width (ft)	128.97	72.09	
Vel Total (ft/s)	6.53	Avg. Vel. (ft/s)	4.77	8.45	
Max Chl Dpth (ft)	9.29	Hydr. Depth (ft)	4.02	6.60	
Conv. Total (cfs)	84070.7	Conv. (cfs)	32033.1	52037.6	
Length Wtd. (ft)	385.04	Wetted Per. (ft)	133.56	78.99	
Min Ch El (ft)	1601.90	Shear (lb/sq ft)	1.45	2.25	
Alpha	1.24	Stream Power (lb/ft s)	6.92	19.01	
Frctn Loss (ft)	2.81	Cum Volume (acre-ft)	72.77	146.52	161.25
C & E Loss (ft)	0.04	Cum SA (acres)	20.62	22.68	50.15

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.24

INPUT
Description:
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9673.96	1611.8	9678.05	1611.57	9692.16	1610.84	9699.23	1610.46	9703.12	1610.25
9708.57	1610	9712.93	1609.78	9714.11	1609.72	9717.62	1609.42	9723.36	1608.95
9726.71	1608.7	9729.48	1608.48	9734.86	1608	9750.09	1606.62	9758.23	1606
9766.89	1605.3	9776.95	1604.62	9783.83	1604.51	9797.28	1604.37	9803.88	1604.29
9808.36	1604.2	9811.41	1604.2	9813.04	1604.18	9829.43	1604.11	9830.32	1604.1
9831.2	1604.1	9843.48	1604	9843.89	1604	9844.27	1604	9844.51	1604
9844.71	1604	9845.24	1604.01	9853.85	1604	9854.05	1604.01	9854.31	1604.01
9854.61	1604	9855	1604.01	9863.17	1604.01	9863.54	1604.01	9864.07	1604.01
9864.97	1604	9866.17	1604.03	9872.5	1604.04	9873.7	1604.05	9876.09	1604.07
9878.41	1604.1	9879.64	1604.08	9881.25	1604.06	9881.32	1604.06	9881.97	1604.06
9883.98	1604.1	9887.35	1604.05	9890	1604.04	9891.9	1604.03	9893.38	1604.03
9893.98	1604	9899.8	1604.04	9904.24	1604.03	9910.18	1604.03	9928.59	1604
9928.85	1604	9933.04	1603.91	9938.01	1603.83	9939.58	1603.8	9941.29	1603.78
9943.9	1603.7	9948.55	1603.66	9959.88	1603.48	9973.11	1603.28	9973.99	1603.11
9975.75	1602.8	9979.71	1602	9987.59	1600.51	9988.71	1600.29	9990.2	1600
9990.23	1600	9990.28	1600	9990.31	1600	9990.36	1600	9990.39	1599.99
10000	1599.510001.57		1599.1910007.25		1598.77	10010.5	1599.7510011.11		1599.93
10011.2	160010011.36		160010011.59		1600.0710018.18		160210022.16		1603.22
10024.71	160410031.27		1605.9710031.38		160610031.67		1606.0910037.96		1608
10039.98	1608.610040.75		1608.78	10042.5	1608.9210045.83		1609.2910051.54		1610
10064.92	161110066.63		1611.0610082.61		1611.91				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9673.96	.06	9973.11	.04510037.96		.055

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9973.1110037.96 445.59 479.85 469.13 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1608.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1607.23	Reach Len. (ft)	445.59	479.85	469.13
Crit W.S. (ft)		Flow Area (sq ft)	677.65	347.93	
E.G. Slope (ft/ft)	0.008613	Area (sq ft)	677.65	347.93	
Q Total (cfs)	6500.00	Flow (cfs)	3201.82	3298.18	
Top Width (ft)	292.12	Top Width (ft)	229.79	62.33	
Vel Total (ft/s)	6.34	Avg. Vel. (ft/s)	4.72	9.48	
Max Chl Dpth (ft)	8.46	Hydr. Depth (ft)	2.95	5.58	

Conv. Total (cfs)	70037.1	Conv. (cfs)	34499.4	35537.7	
Length Wtd. (ft)	464.83	Wetted Per. (ft)	229.91	63.96	
Min Ch El (ft)	1598.77	Shear (lb/sq ft)	1.58	2.93	
Alpha	1.41	Stream Power (lb/ft s)	7.49	27.73	
Frctn Loss (ft)	3.24	Cum Volume (acre-ft)	134.17	126.86	218.13
C & E Loss (ft)	0.05	Cum SA (acres)	68.79	22.04	103.80

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1609.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1607.92	Reach Len. (ft)	445.59	479.85	469.13
Crit W.S. (ft)		Flow Area (sq ft)	418.20	391.60	
E.G. Slope (ft/ft)	0.009145	Area (sq ft)	418.20	391.60	
Q Total (cfs)	6500.00	Flow (cfs)	2460.45	4039.55	
Top Width (ft)	167.50	Top Width (ft)	102.91	64.59	
Vel Total (ft/s)	8.03	Avg. Vel. (ft/s)	5.88	10.32	
Max Chl Dpth (ft)	9.15	Hydr. Depth (ft)	4.06	6.06	
Conv. Total (cfs)	67970.1	Conv. (cfs)	25728.8	42241.3	
Length Wtd. (ft)	467.51	Wetted Per. (ft)	106.80	66.33	
Min Ch El (ft)	1598.77	Shear (lb/sq ft)	2.24	3.37	
Alpha	1.23	Stream Power (lb/ft s)	13.15	34.77	
Frctn Loss (ft)	3.09	Cum Volume (acre-ft)	68.83	142.57	161.25
C & E Loss (ft)	0.11	Cum SA (acres)	19.64	22.05	50.15

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.15

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9820.3	1608	9820.79	1607.94	9821.15	1607.92	9822.35	1607.87	9839.11	1607.07
9844.55	1606.1	9844.88	1606	9845.28	1605.93	9855.6	1604	9862.8	1602.65
9866.24	1602	9868.49	1601.62	9870.18	1601.27	9872.04	1600.93	9887.02	1600.67
9910.46	1600.3	9918.28	1600.12	9920.44	1600.09	9921.42	1600.08	9922.06	1600.07
9922.61	1600.1	9923.08	1600.04	9925.55	1600	9927.02	1599.92	9928.01	1599.86
9929.86	1599.8	9938.74	1599.28	9955.09	1598.41	9964.39	1599.14	9968.9	1599.49
9973.61	1598.9	9980.11	1598	9982.26	1597.73	9982.89	1597.65	9984.32	1597.45
9989.37	1596.8	9994.68	1596.49	9997.69	1596.35	9997.77	1596.35	9998.95	1596.29
10000	1596.210004.74		1596.0810006.72		1596.0210006.76		1596.0110006.79		1596.02
10009.7	1596.810012.15		1597.41	10013	1597.6210013.35		1597.710014.43		1598
10015.54	1598.310021.82		160010022.74		1600.1710022.97		1600.25	10028.6	1600.29
10031.38	1600.310038.87		1600.3510046.79		1600.4110048.54		1600.4310054.87		1600.48
10069.19	1601.2	10076.5	1601.5410084.17		1601.92	10097.2	1601.5210105.26		1601.28
10113.95	160110121.18		1601.7610123.51		160210124.89		1602.1410144.88		1604
10167.81	1605.810171.27		160610171.58		1606.02				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9820.3	.06	9925.55	.06	9968.9	.04510022.97		.05510084.17		.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9968.910022.97		273.66	262.05	262.19	.1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1604.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1604.11	Reach Len. (ft)	273.66	262.05	262.19
Crit W.S. (ft)		Flow Area (sq ft)	437.74	353.83	332.33
E.G. Slope (ft/ft)	0.005743	Area (sq ft)	437.74	353.83	332.33
Q Total (cfs)	6500.00	Flow (cfs)	2071.76	3069.37	1358.87
Top Width (ft)	291.29	Top Width (ft)	113.89	54.07	123.32
Vel Total (ft/s)	5.78	Avg. Vel. (ft/s)	4.73	8.67	4.09
Max Chl Dpth (ft)	8.10	Hydr. Depth (ft)	3.84	6.54	2.69
Conv. Total (cfs)	85774.1	Conv. (cfs)	27339.0	40503.4	17931.7
Length Wtd. (ft)	263.94	Wetted Per. (ft)	114.29	54.82	123.52
Min Ch El (ft)	1596.01	Shear (lb/sq ft)	1.37	2.31	0.96
Alpha	1.38	Stream Power (lb/ft s)	6.50	20.07	3.94
Frctn Loss (ft)	1.78	Cum Volume (acre-ft)	128.46	123.00	216.34
C & E Loss (ft)	0.02	Cum SA (acres)	67.03	21.40	103.13

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1605.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1605.08	Reach Len. (ft)	273.66	262.05	262.19
Crit W.S. (ft)		Flow Area (sq ft)	356.44	406.32	195.68
E.G. Slope (ft/ft)	0.005004	Area (sq ft)	356.44	406.32	195.68
Q Total (cfs)	6500.00	Flow (cfs)	1915.29	3607.93	976.78
Top Width (ft)	159.76	Top Width (ft)	63.43	54.07	42.26
Vel Total (ft/s)	6.78	Avg. Vel. (ft/s)	5.37	8.88	4.99

Max Chl Dpth (ft)	9.07	Hydr. Depth (ft)	5.62	7.51	4.63
Conv. Total (cfs)	91891.2	Conv. (cfs)	27076.7	51005.7	13808.8
Length Wtd. (ft)	263.79	Wetted Per. (ft)	68.23	54.82	46.36
Min Ch El (ft)	1596.01	Shear (lb/sq ft)	1.63	2.32	1.32
Alpha	1.22	Stream Power (lb/ft s)	8.77	20.56	6.58
Frctn Loss (ft)	1.77	Cum Volume (acre-ft)	64.87	138.18	160.20
C & E Loss (ft)	0.05	Cum SA (acres)	18.79	21.40	49.93

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.10

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9880.28	1606.7	9895.92	1606	9917.66	1604.89	9936.16	1604	9948.43	1603.09
9953.69	1602.8	9955.79	1602.75	9957.62	1602.49	9960.25	1602	9967.79	1600.37
9969.79	1600	9977.62	1598.33	9978.58	1598.13	9979.22	1598	9981.06	1597.66
9988.42	1596	9993.95	1594.82	9995.65	1594.45	10000	1594.47	10002.27	1594.5
10019.23	1594.61	10019.43	1594.65	10025.76	1596	10034.26	1597.87	10035.08	1598
10035.44	1598.11	10035.56	1598.09	10051.35	1598.56	10052.61	1598.61	10053.19	1598.63
10092.88	1599	10110.75	1599.17	10110.87	1599.17	10111.06	1599.15	10116.13	1599.29
10119.98	1599.31	10160.06	1599.58	10161.97	1599.55	10164.26	1599.53	10166.12	1599.5
10167.8	1599.51	10169.82	1599.44	10171.8	1599.38	10174.38	1599.33	10177.04	1599.3
10182.78	1599.21	10194.36	1599.03	10204.43	1598.86	10211.11	1599.62	10213.2	1599.85
10214.54	1600	10220.38	1600.63	10232.75	1602	10255.08	1603.49	10262.58	1604
10295.06	1606	10295.23	1606	10295.49	1606.01	10296.1	1606.04	10308.93	1606.65

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9880.28	.06	9955.79	.045	10035.44	.055	10160.06	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9955.79	10035.44	253.81	246.77	218.34	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1603.03	Element			
Vel Head (ft)	0.89	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1602.14	Reach Len. (ft)	253.81	246.77	218.34
Crit W.S. (ft)		Flow Area (sq ft)		411.06	566.40
E.G. Slope (ft/ft)	0.008068	Area (sq ft)		411.06	566.40
Q Total (cfs)	6500.00	Flow (cfs)		3720.01	2779.99
Top Width (ft)	275.33	Top Width (ft)		75.94	199.40
Vel Total (ft/s)	6.65	Avg. Vel. (ft/s)		9.05	4.91
Max Chl Dpth (ft)	7.69	Hydr. Depth (ft)		5.41	2.84
Conv. Total (cfs)	72365.6	Conv. (cfs)		41415.5	30950.1
Length Wtd. (ft)	233.84	Wetted Per. (ft)		77.12	199.60
Min Ch El (ft)	1594.45	Shear (lb/sq ft)		2.68	1.43
Alpha	1.29	Stream Power (lb/ft s)		24.29	7.02
Frctn Loss (ft)	1.41	Cum Volume (acre-ft)	127.09	120.70	213.64
C & E Loss (ft)	0.07	Cum SA (acres)	66.67	21.01	102.16

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1604.13	Element			
Vel Head (ft)	1.41	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1602.72	Reach Len. (ft)	253.81	246.77	218.34
Crit W.S. (ft)		Flow Area (sq ft)		455.43	273.94
E.G. Slope (ft/ft)	0.009442	Area (sq ft)		455.43	273.94
Q Total (cfs)	6500.00	Flow (cfs)		4751.97	1748.03
Top Width (ft)	144.54	Top Width (ft)		75.88	68.66
Vel Total (ft/s)	8.91	Avg. Vel. (ft/s)		10.43	6.38
Max Chl Dpth (ft)	8.27	Hydr. Depth (ft)		6.00	3.99
Conv. Total (cfs)	66893.4	Conv. (cfs)		48903.9	17989.4
Length Wtd. (ft)	237.31	Wetted Per. (ft)		77.66	72.29
Min Ch El (ft)	1594.45	Shear (lb/sq ft)		3.46	2.23
Alpha	1.14	Stream Power (lb/ft s)		36.07	14.25
Frctn Loss (ft)	1.51	Cum Volume (acre-ft)	63.75	135.58	158.79
C & E Loss (ft)	0.16	Cum SA (acres)	18.59	21.01	49.59

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 3.05

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9849.61	1606	9850.27	1606	9861.43	1605.45	9891.18	1604	9904.39	1603.23
9924.58	1602	9938.23	1601.02	9953.54	1600	9954.65	1599.92	9955.97	1599.83
9957.53	1599.7	9964.22	1599.08	9974.23	1598.18	9974.43	1598.12	9974.98	1598
9982.07	1596.1	9982.37	1596	9982.62	1595.93	9990.08	1594	9992.28	1593.42
9997.43	1592	9997.52	1591.95	9998.05	1591.79	9998.27	1591.8	9998.35	1591.8
9998.5	1591.8	10000	1591.91	10009.58	159	210011.48	1592.03	10013.48	1592.07
10021.26	1593.81	10021.92	159	410022.27	1594.08	10030.95	159	610032.31	1596.34
10032.48	1596.41	10033.45	1596.35	10042.55	1596	10048.3	1595.75	10052.63	1595.59
10058.63	1595.71	10073.06	159	610081.34	1596.17	10085.38	1596.26	10091.67	1596.37
10092.53	1596.41	10097.91	1596.66	10102.31	1596.91	10103.49	1596.94	10119.44	1597.36
10121.09	1597.31	10123.29	1597.31	10126.39	1597.25	10129.35	1597.22	10133.19	1597.14
10137.53	1597.11	10140.94	1597.11	10144.71	1597.15	10149.62	1597.24	10151.84	1597.26
10153.28	1597.31	10159.47	1597.46	10163.13	1597.41	10166.31	1597.34	10173.12	1597.24
10175.49	1597.21	10182.56	1597.06	10182.82	1597.09	10183.16	1597.14	10187.19	1597.63
10188.31	1597.81	10188.92	1597.86	10189.22	1597.88	10189.34	1597.91	10189.53	1597.92
10190.17	159	810197.29	1598.95	10200.64	1599.41	10202.83	1599.71	10205.25	1600
10206.1	1600.11	10215.66	1601.25	10222.02	160	210224.05	1602.24	10238.91	1604
10259.04	1605.41	10263.88	1605.79						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9849.61	.06	9974.23	.045	10032.48	.055	10119.44	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9974.23	10032.48	462.57	427.28	371.63	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1601.56	Element			
Vel Head (ft)	0.67	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1600.89	Reach Len. (ft)	462.57	427.28	371.63
Crit W.S. (ft)	1599.45	Flow Area (sq ft)	42.76	404.48	687.80
E.G. Slope (ft/ft)	0.004638	Area (sq ft)	42.76	404.48	687.80
Q Total (cfs)	6500.00	Flow (cfs)	83.74	3260.53	3155.73
Top Width (ft)	272.51	Top Width (ft)	34.06	58.25	180.19
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)	1.96	8.06	4.59
Max Chl Dpth (ft)	9.10	Hydr. Depth (ft)	1.26	6.94	3.82
Conv. Total (cfs)	95447.9	Conv. (cfs)	1229.7	47878.6	46339.6
Length Wtd. (ft)	414.87	Wetted Per. (ft)	34.17	59.59	180.49
Min Ch El (ft)	1591.79	Shear (lb/sq ft)	0.36	1.97	1.10
Alpha	1.31	Stream Power (lb/ft s)	0.71	15.84	5.06
Frctn Loss (ft)	2.94	Cum Volume (acre-ft)	126.96	118.39	210.50
C & E Loss (ft)	0.06	Cum SA (acres)	66.58	20.63	101.21

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1602.45	Element			
Vel Head (ft)	0.86	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1601.60	Reach Len. (ft)	462.57	427.28	371.63
Crit W.S. (ft)		Flow Area (sq ft)	29.98	445.50	472.69
E.G. Slope (ft/ft)	0.004595	Area (sq ft)	29.98	445.50	472.69
Q Total (cfs)	6500.00	Flow (cfs)	89.36	3812.27	2598.37
Top Width (ft)	157.97	Top Width (ft)	10.13	58.25	89.59
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)	2.98	8.56	5.50
Max Chl Dpth (ft)	9.81	Hydr. Depth (ft)	2.96	7.65	5.28
Conv. Total (cfs)	95893.9	Conv. (cfs)	1318.3	56242.1	38333.6
Length Wtd. (ft)	413.75	Wetted Per. (ft)	12.68	59.59	93.93
Min Ch El (ft)	1591.79	Shear (lb/sq ft)	0.68	2.14	1.44
Alpha	1.17	Stream Power (lb/ft s)	2.02	18.35	7.93
Frctn Loss (ft)	3.03	Cum Volume (acre-ft)	63.66	133.03	156.91
C & E Loss (ft)	0.09	Cum SA (acres)	18.56	20.63	49.20

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.97

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9714.04	1600	9716.35	1599.79	9719.13	1599.65	9727.11	1599.15	9735.06	1598.88
9736.58	1598.8	9736.73	1598.82	9739.55	1598.6	9740.84	1598.5	9742.52	1598.34
9743.71	1598.2	9746.07	1598	9760.52	1596.66	9767.82	1596	9771.97	1595.63
9772.68	1595.6	9776.59	1595.61	9783.09	1595.68	9789.38	1595.72	9789.86	1595.72
9794.24	1595.8	9797.25	1595.77	9799.42	1595.79	9799.93	1595.78	9859.86	1595.38
9860.94	1595.4	9863.09	1595.36	9865.5	1595.34	9865.88	1595.34	9866.37	1595.34
9878.95	1595.2	9880.14	1595.17	9881.22	1595.15	9885.3	1595.08	9890.82	1595.02
9942.98	1594.4	9943.75	1594.35	9944.25	1594.35	9944.94	1594.34	9945.23	1594.34
9945.69	1594.3	9945.91	1594.3	9946.11	1594.3	9955.14	1594.34	9969.97	1594.35

9972.53	1594.4	9975.61	1594.35	9976.14	1594.22	9977.07	1594	9983.59	1592.18
9984.19	1592	9984.71	1591.87	9985.11	1591.76	9988.58	1590.82	10000	1590.87
10001.75	1590.91	10008.75	1591.02	10016.26	1591.08	10016.67	1591.15	10021.18	1592
10025.73	1592.91	10026.12	1592.99	10039.09	1593.37	10057.28	1593.88	10057.36	1593.88
10058.06	1594	10058.1	1593.96	10058.62	159	10068.47	1594.81	10075.85	1595.38
10084.12	1596	10092.7	1596.79	10107.53	159	10123.03	1599.44	10128.94	1600
10132.03	1600.21	0151.91	1602						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9714.04	.06	9975.61	.045	10026.12	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9975.61	10026.12	258.19	218.23	157.54	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1598.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.25	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1597.31	Reach Len. (ft)	258.19	218.23	157.54
Crit W.S. (ft)	1597.31	Flow Area (sq ft)	462.34	290.08	193.35
E.G. Slope (ft/ft)	0.012098	Area (sq ft)	462.34	290.08	193.35
Q Total (cfs)	6500.00	Flow (cfs)	2052.37	3349.56	1098.07
Top Width (ft)	345.66	Top Width (ft)	222.14	50.51	73.00
Vel Total (ft/s)	6.87	Avg. Vel. (ft/s)	4.44	11.55	5.68
Max Chl Dpth (ft)	6.49	Hydr. Depth (ft)	2.08	5.74	2.65
Conv. Total (cfs)	59096.7	Conv. (cfs)	18659.7	30453.5	9983.4
Length Wtd. (ft)	224.31	Wetted Per. (ft)	222.24	51.17	73.18
Min Ch El (ft)	1590.82	Shear (lb/sq ft)	1.57	4.28	2.00
Alpha	1.70	Stream Power (lb/ft s)	6.97	49.44	11.33
Frctn Loss (ft)	1.78	Cum Volume (acre-ft)	124.28	114.98	206.74
C & E Loss (ft)	0.22	Cum SA (acres)	65.22	20.09	100.13

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1599.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.72	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1597.62	Reach Len. (ft)	258.19	218.23	157.54
Crit W.S. (ft)	1597.62	Flow Area (sq ft)	206.70	305.55	214.72
E.G. Slope (ft/ft)	0.013468	Area (sq ft)	206.70	305.55	214.72
Q Total (cfs)	6500.00	Flow (cfs)	1241.14	3853.94	1404.92
Top Width (ft)	186.67	Top Width (ft)	65.61	50.51	70.55
Vel Total (ft/s)	8.94	Avg. Vel. (ft/s)	6.00	12.61	6.54
Max Chl Dpth (ft)	6.80	Hydr. Depth (ft)	3.15	6.05	3.04
Conv. Total (cfs)	56010.3	Conv. (cfs)	10694.9	33209.3	12106.2
Length Wtd. (ft)		Wetted Per. (ft)	68.45	51.17	71.23
Min Ch El (ft)	1590.82	Shear (lb/sq ft)	2.54	5.02	2.53
Alpha	1.38	Stream Power (lb/ft s)	15.25	63.33	16.58
Frctn Loss (ft)		Cum Volume (acre-ft)	62.41	129.35	153.98
C & E Loss (ft)		Cum SA (acres)	18.16	20.10	48.51

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The cross section had to be extended vertically during the critical depth calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the *cross section slice/secant method to find critical depth.*

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.93

INPUT
Description:
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9624.57	1600	9636.55	1599.38	9664.53	1598.02	9665.18	1598.01	9665.67	1598.01
9675.5	1598	9675.63	1598	9675.81	1598	9676.82	1598.01	9678.81	1598
9679.31	1598	9680.21	1597.96	9683.21	1597.84	9703.33	1596.98	9719.13	1596.22
9719.52	1596.2	9720.93	1596.21	9721.86	1596.21	9722.2	1596.21	9724.54	1596.14
9728.67	1596	9733.41	1595.85	9733.96	1595.84	9734.06	1595.83	9734.66	1595.79
9734.67	1595.8	9735.12	1595.76	9737.83	1595.82	9738.69	1595.74	9741.24	1595.62
9744.38	1595.4	9748	1595.02	9749.76	1594.86	9750.66	1594.77	9752.52	1594.64
9753.89	1594.6	9762.35	1594.21	9762.68	1594.2	9767.04	1594	9769.79	1593.84
9770.34	1593.8	9770.92	1593.8	9772.39	1593.69	9790.42	1593.42	9790.61	1593.44
9792.3	1593.4	9816	1593.36	9825.21	1593.31	9825.89	1593.31	9827.96	1593.29

9829.09	1593.3	9830.92	1593.26	9831.87	1593.26	9843.02	1593.09	9850.52	1592.03
9850.73	1592	9851.86	1591.84	9854.95	1591.42	9859.56	1590.79	9859.75	1590.79
9878.33	1591.9	9879.42	1591.94	9879.66	1591.96	9880.64	1592	9880.85	1592.01
9881.21	1592	9883.08	1592.23	9887.88	1592.68	9888.13	1592.7	9888.32	1592.71
9888.77	1592.7	9913.68	1592.56	9913.93	1592.57	9914.1	1592.54	9916.69	1592
9917.55	1591.8	9919.49	1591.32	9922.63	1590.76	9947.72	1591.15	9954.32	1591.25
9963.42	1591.4	9968.22	1591.19	9992.93	1590	9999.27	1589.69	10000	1589.62
10001.36	1589.6	10006.3	1589.9210007.36		1590	10014.9	1590.5710016.79		1590.7
10018.89	1590.810021.72		1591.0310031.05		1591.76	10031.8	1591.8210033.19		1591.93
10033.22	1591.910034.94		1592	10035.7	1592.03	10036	1592.0310036.15		1592.03
10036.24	159210037.58		159210057.78		1592.0910084.83		1592.25	10088.4	1592.27
10089.12	1592.410094.67		1593.2410099.68		159410106.59		1595.0410112.82		1596
10117.63	1596.710125.96		159810136.76		1599.3510142.36		160010159.03		1601.57
10163.57	160210166.91		1602.2910174.84		1603.0710184.63		160410185.87		1604.11
10186.86	1604.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9624.57	.06	9719.13	.06	9843.02	.045	9888.32	.06	9963.42	.045
10036	.055								

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9963.42	10036	297.95	238.37	236.36	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1596.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.	0.055	0.045	0.055
W.S. Elev (ft)	1595.63	Reach Len. (ft)	297.95	238.37	236.36
Crit W.S. (ft)		Flow Area (sq ft)	664.83	360.41	220.34
E.G. Slope (ft/ft)	0.005621	Area (sq ft)	664.83	360.41	220.34
Q Total (cfs)	6500.00	Flow (cfs)	2988.35	2593.40	918.25
Top Width (ft)	369.29	Top Width (ft)	222.31	72.58	74.40
Vel Total (ft/s)	5.22	Avg. Vel. (ft/s)	4.49	7.20	4.17
Max Chl Dpth (ft)	6.03	Hydr. Depth (ft)	2.99	4.97	2.96
Conv. Total (cfs)	86699.8	Conv. (cfs)	39859.9	34591.9	12248.0
Length Wtd. (ft)	267.74	Wetted Per. (ft)	222.81	72.73	74.66
Min Ch El (ft)	1589.60	Shear (lb/sq ft)	1.05	1.74	1.04
Alpha	1.19	Stream Power (lb/ft s)	4.71	12.51	4.32
Frctn Loss (ft)	2.35	Cum Volume (acre-ft)	120.94	113.35	205.99
C & E Loss (ft)	0.06	Cum SA (acres)	63.90	19.78	99.86

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1597.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.054	0.045	0.055
W.S. Elev (ft)	1596.43	Reach Len. (ft)	297.95	238.37	236.36
Crit W.S. (ft)		Flow Area (sq ft)	555.04	418.38	85.83
E.G. Slope (ft/ft)	0.004977	Area (sq ft)	555.04	418.38	85.83
Q Total (cfs)	6500.00	Flow (cfs)	2987.57	3128.94	383.49
Top Width (ft)	208.83	Top Width (ft)	116.69	72.58	19.56
Vel Total (ft/s)	6.14	Avg. Vel. (ft/s)	5.38	7.48	4.47
Max Chl Dpth (ft)	6.83	Hydr. Depth (ft)	4.76	5.76	4.39
Conv. Total (cfs)	92140.0	Conv. (cfs)	42350.0	44354.0	5436.1
Length Wtd. (ft)	267.65	Wetted Per. (ft)	120.94	72.73	23.91
Min Ch El (ft)	1589.60	Shear (lb/sq ft)	1.43	1.79	1.12
Alpha	1.10	Stream Power (lb/ft s)	7.67	13.37	4.98
Frctn Loss (ft)	2.19	Cum Volume (acre-ft)	60.15	127.54	153.44
C & E Loss (ft)	0.08	Cum SA (acres)	17.62	19.79	48.35

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.88

INPUT
Description:
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9647.56	1595.8	9667.46	1594.43	9674.61	1594	9685.39	1593.48	9694.21	1593.07
9717.79	1592	9718.09	1592.01	9718.41	1592.02	9718.42	1592.01	9718.55	1591.99
9727.93	1590	9733.13	1588.9	9737.45	1588	9739.98	1587.44	9740.63	1587.28
9743.2	1587.5	9746.06	1587.77	9746.4	1587.81	9746.61	1587.83	9747	1587.91
9747.2	1588	9747.28	1588	9755.61	1589.96	9755.8	1590	9755.88	1590.02
9756.96	1590.3	9777.19	1590.61	9797.64	1590.92	9802.16	1590.48	9806.84	1590
9811.92	1589.5	9814.02	1589.28	9821.62	1589.43	9830.99	1589.6	9835.58	1589.96
9836.07	1590	9836.73	1590.05	9837.18	1590.08	9839.83	1590.3	9849.87	1591.13
9852.33	1591.1	9853.05	1591.11	9861.56	1591.09	9867.72	1591.08	9875.99	1591.01
9876.42	1591	9877.04	1591.01	9907.24	1591.09	9907.29	1591.1	9911.68	1590.78
9919.93	1590.2	9920.7	1590.1	9921.28	1590.06	9936.68	1591.47	9937.06	1591.5
9937.93	1591.5	9973.79	1590	9977.85	1589.81	9981.34	1589.62	9985.07	1589.13

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 9991.77  1588.3 9993.92    1588 9997.72  1587.5   10000 1587.1510003.19 1586.76
10007.84  1586.810013.24 1586.8810014.17 1587.0510015.23 1587.2910019.11    1588
10024.53  1589.110027.03 1589.5510027.56 1589.6710027.78 1589.6710028.69 1589.67
10032.94  1589.710035.01 1589.7910035.92  1589.810044.64 1589.8910047.56 1589.86
10051.64  1589.910053.46 1589.8210053.78 1589.8210054.53 1589.9610054.66 1589.99
10054.75    159010056.17 1590.2310064.04 1591.68 10065.8    159210066.29 1592.08
10078.42    159410080.64 1594.3310091.97    159610104.98 1597.8810105.78    1598
10106.73  1598.110108.08 1598.1810109.41 1598.2610109.52 1598.27 10111.4 1598.63
 10120.7  1599.2 10123.8 1599.5310130.44    1600

Manning's n Values        num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9647.56     .06 9717.79    .045 9756.96     .06 9849.87     .06 9981.34    .045
10027.56    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9981.3410027.56           237.82  234.26  230.56             .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)           1593.71   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.12   Wt. n-Val.               0.055      0.045      0.055
  W.S. Elev (ft)           1592.60   Reach Len. (ft)         237.82     234.26     230.56
  Crit W.S. (ft)           1592.60   Flow Area (sq ft)       586.82     216.11      94.58
  E.G. Slope (ft/ft)      0.015700   Area (sq ft)            586.82     216.11      94.58
  Q Total (cfs)            6500.00   Flow (cfs)             3468.41    2483.71     547.87
  Top Width (ft)            364.95   Top Width (ft)          276.73      46.22      42.00
  Vel Total (ft/s)            7.24   Avg. Vel. (ft/s)          5.91      11.49       5.79
  Max Chl Dpth (ft)           5.84   Hydr. Depth (ft)          2.12       4.68       2.25
  Conv. Total (cfs)        51875.0   Conv. (cfs)            27680.6    19821.9     4372.5
  Length Wtd. (ft)                   Wetted Per. (ft)        277.87      46.68      42.25
  Min Ch El (ft)           1586.76   Shear (lb/sq ft)          2.07       4.54       2.19
  Alpha                       1.37   Stream Power (lb/ft s)   12.23      52.15      12.71
  Frctn Loss (ft)                    Cum Volume (acre-ft)    116.66     111.77     205.13
  C & E Loss (ft)                    Cum SA (acres)           62.19      19.46      99.55


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)           1594.80   Element                Left OB    Channel   Right OB
  Vel Head (ft)               1.41   Wt. n-Val.               0.060      0.045
  W.S. Elev (ft)           1593.40   Reach Len. (ft)         237.82     234.26     230.56
  Crit W.S. (ft)           1593.40   Flow Area (sq ft)       554.37     253.04
  E.G. Slope (ft/ft)      0.015871   Area (sq ft)            554.37     253.04
  Q Total (cfs)            6500.00   Flow (cfs)             3413.86    3086.14
  Top Width (ft)            244.56   Top Width (ft)          198.34      46.22
  Vel Total (ft/s)            8.05   Avg. Vel. (ft/s)          6.16      12.20
  Max Chl Dpth (ft)           6.64   Hydr. Depth (ft)          2.80       5.47
  Conv. Total (cfs)        51594.6   Conv. (cfs)            27098.0    24496.7
  Length Wtd. (ft)          236.44   Wetted Per. (ft)        201.34      50.41
  Min Ch El (ft)           1586.76   Shear (lb/sq ft)          2.73       4.97
  Alpha                       1.40   Stream Power (lb/ft s)   16.80      60.67
  Frctn Loss (ft)             1.81   Cum Volume (acre-ft)     56.36     125.70     153.21
  C & E Loss (ft)             0.26   Cum SA (acres)           16.54      19.46      48.30


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program selected the water surface that had the least amount of error between computed
         and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The cross section had to be extended vertically during the critical depth calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to
         critical depth, the calculated water surface came back below critical depth.  This indicates
         that there is not a valid subcritical answer.  The program defaulted to critical depth.
Warning: The parabolic search method failed to converge on critical depth.  The program will try the
         cross section slice/secant method to find critical depth.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 2.84

INPUT
Description:
Station Elevation Data    num=     127
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9636.75     1594 9648.26 1593.68 9649.08 1593.67     9650 1593.65 9665.67  1593.3
 9677.27     1593 9684.09 1592.87 9717.64 1592.09 9720.99     1592 9754.36 1590.16
  9756.7     1590 9757.43     1590 9758.91 1589.81 9763.93 1589.09 9767.23 1588.69
 9770.22   1588.4 9774.99     1588 9777.07 1587.81 9777.84 1587.75 9783.73 1587.43
 9784.71   1587.4 9787.56 1587.23 9790.24     1587 9795.92 1586.51 9798.98 1586.27
  9800.3   1586.2 9801.37 1586.17 9802.15 1586.17 9802.99 1586.17 9803.27 1586.16
 9803.61   1586.2 9804.24 1586.14 9806.64 1586.18  9807.8 1586.17 9810.38 1586.16
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 9811.44  1586.1 9812.71 1586.08 9814.62    1586 9816.72  1585.9 9818.33 1585.85
 9820.05  1585.8 9823.22 1585.62 9828.18 1585.44 9832.24 1585.25 9835.88 1585.09
 9837.34    1585 9840.21 1584.99 9841.86 1584.95 9845.15 1584.84 9846.49  1584.8
  9848.8  1584.7 9850.37 1584.95 9852.49 1585.19 9858.06    1586 9859.01 1586.16
 9864.07  1586.8 9874.47    1588 9877.45 1588.38 9877.59 1588.39 9884.14 1588.36
 9887.92  1588.3 9888.94 1588.33 9889.85 1588.33 9909.35 1588.23 9911.21 1588.24
  9914.4  1588.2 9919.85 1588.27 9923.44 1588.27 9925.08  1588.1 9925.97    1588
 9929.34  1587.7 9932.78 1587.31 9935.71 1587.42 9940.12 1587.61 9951.11 1587.95
  9952.2  1587.9 9954.05 1587.97 9954.81 1587.99 9954.94    1588 9955.42 1588.01
 9955.59    1588 9956.66 1587.99 9957.24 1587.98 9960.27 1587.96 9969.89 1587.87
 9971.16  1587.8  9972.8  1587.8 9974.37 1587.78 9976.84  1587.7 9979.24 1587.64
 9980.38  1587.4  9986.6    1586 9992.31 1584.77 9993.38  1584.5 9996.14 1584.39
   10000  1584.210006.63 1584.0510006.99 1584.0510008.03 1584.28 10010.3  1584.7
 10011.7    158510012.27 1585.1310013.79 1585.4610016.21    158610020.64 1587.01
10022.77  1587.610023.52 1587.7310030.45 1587.6210058.12 1587.0310059.61 1587.45
10061.73    158810064.03 1588.8110068.42    159010074.25 1591.5310075.77    1592
10080.63  1593.410082.82    1594   10087 1595.1810089.73    1596   10091 1596.37
10096.63    159810096.73 1598.0310096.86 1598.0210096.87 1598.0210099.05 1598.17
   10127    160010127.28 1600.01

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9636.75     .06 9774.99    .045 9874.47     .06 9979.24    .04510023.52    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9979.2410023.52            330.86  324.24  320.86             .1      .3
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CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1591.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.049	0.045	0.055
W.S. Elev (ft)	1590.71	Reach Len. (ft)	330.86	324.24	320.86
Crit W.S. (ft)		Flow Area (sq ft)	769.63	234.49	138.29
E.G. Slope (ft/ft)	0.005710	Area (sq ft)	769.63	234.49	138.29
Q Total (cfs)	6500.00	Flow (cfs)	4171.91	1757.52	570.58
Top Width (ft)	326.79	Top Width (ft)	234.90	44.28	47.61
Vel Total (ft/s)	5.69	Avg. Vel. (ft/s)	5.42	7.50	4.13
Max Chl Dpth (ft)	6.66	Hydr. Depth (ft)	3.28	5.30	2.90
Conv. Total (cfs)	86016.2	Conv. (cfs)	55208.0	23257.7	7550.6
Length Wtd. (ft)	327.56	Wetted Per. (ft)	235.45	45.04	48.14
Min Ch El (ft)	1584.05	Shear (lb/sq ft)	1.17	1.86	1.02
Alpha	1.10	Stream Power (lb/ft s)	6.32	13.91	4.23
Frctn Loss (ft)	2.48	Cum Volume (acre-ft)	112.96	110.56	204.52
C & E Loss (ft)	0.04	Cum SA (acres)	60.79	19.22	99.31

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1592.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.	0.050	0.045	
W.S. Elev (ft)	1591.66	Reach Len. (ft)	330.86	324.24	320.86
Crit W.S. (ft)		Flow Area (sq ft)	831.99	276.43	
E.G. Slope (ft/ft)	0.004483	Area (sq ft)	831.99	276.43	
Q Total (cfs)	6500.00	Flow (cfs)	4562.52	1937.48	
Top Width (ft)	227.02	Top Width (ft)	182.74	44.28	
Vel Total (ft/s)	5.86	Avg. Vel. (ft/s)	5.48	7.01	
Max Chl Dpth (ft)	7.61	Hydr. Depth (ft)	4.55	6.24	
Conv. Total (cfs)	97082.1	Conv. (cfs)	68144.5	28937.6	
Length Wtd. (ft)	327.30	Wetted Per. (ft)	188.29	48.97	
Min Ch El (ft)	1584.05	Shear (lb/sq ft)	1.24	1.58	
Alpha	1.04	Stream Power (lb/ft s)	6.78	11.07	
Frctn Loss (ft)	2.33	Cum Volume (acre-ft)	52.57	124.27	153.21
C & E Loss (ft)	0.09	Cum SA (acres)	15.50	19.22	48.30

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.77

INPUT
Description:
Station Elevation Data num= 93

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9563.97    1590 9585.44 1589.67 9588.18 1589.61 9604.75 1589.36 9607.79 1589.32
 9611.94  1589.2 9616.25 1589.17 9621.38 1589.08 9627.73 1588.96 9636.04 1588.78
 9651.99  1588.4 9655.75 1588.36 9671.49    1588 9701.82 1587.15 9709.13 1586.96
 9715.01  1586.8 9722.74 1586.18    9725    1586 9737.34 1585.02  9748.8 1584.14
 9751.06  1584.2 9757.76 1584.45  9761.4 1584.53 9767.38 1584.69 9800.45 1585.91
 9801.14  1585.9 9801.42 1585.94  9801.6 1585.95 9801.74 1585.95  9801.9 1585.96
 9802.03  1585.9 9802.12  1585.9 9802.18  1585.9 9802.24  1585.9  9802.3 1585.98
 9803.11    1586 9803.12    1586 9803.42    1586 9807.85 1586.14 9810.04 1586.17
 9814.25  1586.1 9817.11  1586.1 9821.57 1586.07 9825.61    1586 9826.12 1585.99
 9828.87  1585.9 9831.01 1585.92 9841.38  1585.8 9850.35 1585.77 9855.73 1585.73
 9859.47  1585.7  9937.5 1585.82 9942.43 1585.83  9944.1 1585.85 9947.57 1584.84
 9948.81  1584.4 9950.34    1584 9951.43 1583.65 9957.32    1582 9957.61 1581.89
 9957.81  1581.8 9957.86 1581.84 9958.34 1581.84 9960.84  1581.8 9961.54 1581.88
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 9961.98  1581.8 9962.61 1581.88 9969.65    1582 9994.64 1582.64 10005.8 1582.88
10006.98  1582.910011.27 1583.3310018.63    158410022.36 1584.3210025.81 1584.61
10028.97  1585.3 10030.9 1585.7710031.94    158610032.62  1586.110040.61    1588
10047.46  1589.510049.38    159010050.79 1590.32 10058.1    159210071.16 1593.81
10072.45    159410074.61 1594.2510088.12 1595.7410090.45    159610094.34 1596.47
10098.38  1596.910100.05    159710133.44    1598

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9563.97     .06 9701.82    .045  9801.9     .06  9944.1    .04510047.46    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9944.110047.46           178.45  226.63  231.52             .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1588.75   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.91   Wt. n-Val.               0.052      0.045
  W.S. Elev (ft)            1587.84   Reach Len. (ft)         178.45     226.63     231.52
  Crit W.S. (ft)                      Flow Area (sq ft)       537.21     425.83
  E.G. Slope (ft/ft)        0.010465  Area (sq ft)            537.21     425.83
  Q Total (cfs)             6500.00   Flow (cfs)             2641.74    3858.26
  Top Width (ft)             362.89   Top Width (ft)          267.04      95.85
  Vel Total (ft/s)             6.75   Avg. Vel. (ft/s)          4.92       9.06
  Max Chl Dpth (ft)            6.04   Hydr. Depth (ft)          2.01       4.44
  Conv. Total (cfs)         63539.6   Conv. (cfs)            25823.9    37715.8
  Length Wtd. (ft)           202.36   Wetted Per. (ft)        267.25      96.94
  Min Ch El (ft)            1581.80   Shear (lb/sq ft)          1.31       2.87
  Alpha                        1.29   Stream Power (lb/ft s)    6.46      26.00
  Frctn Loss (ft)              1.82   Cum Volume (acre-ft)    107.99     108.11     204.01
  C & E Loss (ft)              0.08   Cum SA (acres)           58.89      18.70      99.14

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1589.79   Element                Left OB    Channel   Right OB
  Vel Head (ft)                1.48   Wt. n-Val.               0.060      0.045
  W.S. Elev (ft)            1588.31   Reach Len. (ft)         178.45     226.63     231.52
  Crit W.S. (ft)                      Flow Area (sq ft)       279.76     470.81
  E.G. Slope (ft/ft)        0.012997  Area (sq ft)            279.76     470.81
  Q Total (cfs)             6500.00   Flow (cfs)             1449.62    5050.38
  Top Width (ft)             206.56   Top Width (ft)          110.10      96.46
  Vel Total (ft/s)             8.66   Avg. Vel. (ft/s)          5.18      10.73
  Max Chl Dpth (ft)            6.51   Hydr. Depth (ft)          2.54       4.88
  Conv. Total (cfs)         57015.2   Conv. (cfs)            12715.4    44299.8
  Length Wtd. (ft)           208.31   Wetted Per. (ft)        112.53      97.88
  Min Ch El (ft)            1581.80   Shear (lb/sq ft)          2.02       3.90
  Alpha                        1.27   Stream Power (lb/ft s)   10.45      41.87
  Frctn Loss (ft)              2.10   Cum Volume (acre-ft)     48.35     121.49     153.21
  C & E Loss (ft)              0.19   Cum SA (acres)           14.39      18.70      48.30

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 2.73

INPUT
Description:
Station Elevation Data    num=     132
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
  9463.49   1589.9 9484.85 1589.49 9492.23 1589.36    9514 1588.94 9549.49 1588.36
   9555.6   1588.3   9571.4    1588 9574.83 1587.94 9593.73 1587.58 9605.41 1587.34
  9607.99   1587.3 9635.62 1586.73 9669.54    1586 9669.64    1586 9674.65 1585.84
  9679.95   1585.4 9680.78 1585.33 9687.21 1584.79 9690.14 1584.55  9692.1 1584.38
  9692.79   1584.3 9696.66    1584  9696.7 1583.99 9696.77 1583.99 9696.93 1583.99
  9697.49     1584 9698.79 1583.97 9706.84 1583.85 9709.46 1583.79 9713.28 1583.71
  9718.99   1583.6 9725.83 1583.42 9731.54 1583.27 9732.78 1583.31 9734.69  1583.3
  9735.25   1583.3 9738.23 1583.41 9739.36 1583.42 9740.54 1583.44 9741.54 1583.47
  9743.14   1583.5 9746.63  1583.6 9749.49 1583.68 9751.98 1583.73 9753.19 1583.77
  9753.86   1583.8 9754.45  1583.8 9755.07 1583.81 9755.53 1583.83 9755.91 1583.83
  9756.25   1583.8 9756.48 1583.85 9756.68 1583.85 9757.04 1583.88 9757.34 1583.89
  9757.44   1583.9 9760.88 1583.89 9761.22  1583.9 9778.16 1583.88 9778.55 1583.89
  9785.18   1583.9 9792.64 1583.93 9802.12 1583.99 9802.18 1583.99 9802.98 1583.99
  9805.39     1584 9806.67    1584 9807.03    1584 9814.31 1583.95 9816.21 1583.92
  9817.82   1583.9 9820.75 1583.92 9831.76 1583.86 9850.99 1583.73 9853.61 1583.58
  9854.79   1583.5 9859.21 1583.18 9860.98 1583.05 9862.56 1582.95 9866.62 1582.61
  9870.14   1582.3 9872.98 1582.53  9874.1 1582.61 9876.55  1582.8 9880.01 1583.03
  9885.59   1583.4 9885.92 1583.36 9921.18 1582.35 9925.04 1582.32 9928.88 1582.33
  9940.59   1582.3 9975.04 1582.09 9980.86    1582 9983.02  1581.9 9986.22 1581.61
  9986.57   1581.5 9988.14 1581.13 9992.48    1580 9994.15  1579.6 9994.56  1579.5
  9995.37   1579.3 9995.94 1579.19   10000  1578.910003.56 1578.7710012.49  1578.3
10014.95    157910016.17 1579.32 10018.3    158010021.51 1580.9510024.84    1582
10027.31  1582.910031.01    158410034.96 1584.91 10039.3    158610045.34  1587.2
10049.51    158810055.42 1589.1810059.49    159010067.87 1591.6410069.65    1592
10071.85  1592.410076.06 1592.8910076.15 1592.8910076.66 1592.8110076.83  1592.8
10077.43  1592.810081.55 1592.6910082.91 1592.6410084.51 1592.6510095.58 1592.96
10098.52    159310103.72 1592.88
```

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9463.49	.06	9831.76	.06	9983.02	.04	510045.34	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9983.02	10045.34	128.19	200.52 336.66	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1586.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1586.21	Reach Len. (ft)	128.19	200.52	336.66
Crit W.S. (ft)		Flow Area (sq ft)	883.38	300.09	
E.G. Slope (ft/ft)	0.007793	Area (sq ft)	883.38	300.09	
Q Total (cfs)	6500.00	Flow (cfs)	3907.05	2592.95	
Top Width (ft)	380.64	Top Width (ft)	323.29	57.34	
Vel Total (ft/s)	5.49	Avg. Vel. (ft/s)	4.42	8.64	
Max Chl Dpth (ft)	7.91	Hydr. Depth (ft)	2.73	5.23	
Conv. Total (cfs)	73629.3	Conv. (cfs)	44257.4	29371.9	
Length Wtd. (ft)	206.81	Wetted Per. (ft)	323.52	58.80	
Min Ch El (ft)	1578.30	Shear (lb/sq ft)	1.33	2.48	
Alpha	1.38	Stream Power (lb/ft s)	5.88	21.45	
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	105.08	106.22	204.01
C & E Loss (ft)	0.09	Cum SA (acres)	57.68	18.30	99.14

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1587.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.	0.060	0.045	
W.S. Elev (ft)	1586.65	Reach Len. (ft)	128.19	200.52	336.66
Crit W.S. (ft)		Flow Area (sq ft)	651.02	325.13	
E.G. Slope (ft/ft)	0.008030	Area (sq ft)	651.02	325.13	
Q Total (cfs)	6500.00	Flow (cfs)	3495.54	3004.46	
Top Width (ft)	229.96	Top Width (ft)	173.02	56.94	
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	5.37	9.24	
Max Chl Dpth (ft)	8.35	Hydr. Depth (ft)	3.76	5.71	
Conv. Total (cfs)	72536.5	Conv. (cfs)	39008.4	33528.1	
Length Wtd. (ft)	218.84	Wetted Per. (ft)	175.81	58.91	
Min Ch El (ft)	1578.30	Shear (lb/sq ft)	1.86	2.77	
Alpha	1.24	Stream Power (lb/ft s)	9.97	25.57	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	46.44	119.42	153.21
C & E Loss (ft)	0.16	Cum SA (acres)	13.81	18.30	48.30

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.69

INPUT
Description:
Station Elevation Data num= 179

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9470.36	1590	9475.13	1589.88	9480.6	1589.74	9549.68	1588	9566.59	1587.7
9664.6	1586	9690.07	1585.5	9692.13	1585.45	9693.4	1585.33	9705.98	1584
9712.18	1583.4	9713.51	1583.29	9716.1	1583.05	9740.12	1583.03	9741.63	1583.02
9774.21	1582.56	9779.8	1582.54	9781.16	1582.53	9781.96	1582.5	9786.38	1582.47
9792.34	1582.25	9792.68	1582.25	9792.98	1582.24	9793.93	1582.2	9793.98	1582.23
9796.45	1582.24	9800.72	1582.33	9802.84	1582.38	9804.21	1582.4	9806	1582.47
9809.24	1582.53	9809.92	1582.53	9810.71	1582.54	9811.56	1582.6	9813.87	1582.58
9855.4	1583.18	9858.23	1583.19	9859.83	1583.2	9862.42	1582.9	9868.74	1582
9871.43	1581.56	9872.07	1581.49	9874	1581.3	9874.93	1581.2	9880.22	1581.74
9883.14	1581.97	9883.42	1582	9886.31	1582.27	9888.45	1582.5	9888.5	1582.51
9888.65	1582.48	9891.57	1582.31	9902.07	1582.13	9903.05	1582.1	9903.59	1582.07
9907.48	1582	9909.54	1581.97	9910.47	1581.95	9913.91	1581.9	9924.29	1581.72
9925.61	1581.79	9927.5	1581.9	9928.77	1581.96	9929.65	1582	9930.34	1582.02
9930.83	1582.04	9943.18	1582.34	9957	1582.56	9961.7	1582.6	9965.02	1582.67
9970.32	1582.74	9973.49	1582.8	9974.39	1582.59	9977.22	1582	9983.48	1580.51
9985.42	1580	9987.84	1579.43	9988.27	1579.34	9990.32	1578.8	9991.6	1578.54
9992.12	1578.48	9996.47	1578	10000	1577.25	10009.46	1576.61	10009.65	1576.54
10011.58	1577.18	10012.05	1577.31	10013.97	1578	10018.77	1579.71	10019.75	1580
10020.68	1580.32	10020.86	1580.4	10021	1580.44	10021.62	1580.71	10024.12	1581.58
10024.54	1581.72	10025.39	1581.69	10034.3	1581.3	10040	1581.11	10043.53	1580.95
10045.67	1580.87	10052.79	1580.61	10053.32	1580.61	10055.56	1580.71	10055.76	1580.66
10058.03	1580.73	10060.44	1580.89	10062.85	1581	10064.71	1581.11	10066.12	1581.18
10077.33	1582	10080.62	1582.28	10081.66	1582.31	10082.66	1582.31	10090.42	1582.76
10092.89	1582.92	10094.77	1582.96	10099.61	1583	10109.32	1583	10113.56	1583.02
10157.54	1583.54	10169.13	1583.56	10183.08	1583.61	10212.48	1583.51	10214.86	1583.52
10217.38	1583.52	10217.4	1583.52	10217.41	1583.52	10222.22	1582.71	10223.56	1582.43
10224.28	1582.31	10225.86	1582	10230.2	1581.12	10231.35	1580.91	10235.99	1580.01
10236.74	1580.01	10236.89	1579.98	10243.49	1579.84	10244.64	1579.81	10246.53	1579.8
10247.66	1579.77	10251.12	1579.73	10252.16	1579.72	10252.53	1579.71	10255.02	1579.68
10255.86	1579.73	10257.79	1579.83	10258.68	1579.87	10266.64	1579.81	10267.48	1579.87
10267.77	1579.84	10268.39	1579.87	10269.01	1579.89	10271.04	1580	10278.77	1581.42

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10280.16 1581.6410282.59    158210286.27 1582.5410290.25  1583.110297.13    1584
10306.46    158510307.53 1585.1110309.53 1585.3610312.68  1585.810314.45 1586.02
10331.78 1585.6610346.27 1585.3310356.46 1585.1110359.79    158510365.08 1584.91
10372.46 1585.1510381.35 1585.4410385.03 1585.5610386.91  1585.610388.52 1585.68
10389.93 1585.71 10398.9    158610423.55  1587.310437.84    1588

Manning's n Values        num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9470.36     .06 9859.83     .06 9973.49    .04510024.54    .05510217.41    .036
10290.25    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9973.4910024.54           210.07  264.16  263.43             .1       .3
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CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1585.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.060	0.045	0.044
W.S. Elev (ft)	1585.40	Reach Len. (ft)	210.07	264.16	263.43
Crit W.S. (ft)		Flow Area (sq ft)	772.12	323.05	888.76
E.G. Slope (ft/ft)	0.003609	Area (sq ft)	772.12	323.05	888.76
Q Total (cfs)	8400.00	Flow (cfs)	2276.60	2150.07	3973.33
Top Width (ft)	654.41	Top Width (ft)	280.87	51.05	322.49
Vel Total (ft/s)	4.23	Avg. Vel. (ft/s)	2.95	6.66	4.47
Max Chl Dpth (ft)	8.86	Hydr. Depth (ft)	2.75	6.33	2.76
Conv. Total (cfs)	139823.0	Conv. (cfs)	37895.4	35789.2	66138.4
Length Wtd. (ft)	250.45	Wetted Per. (ft)	281.24	52.57	323.35
Min Ch El (ft)	1576.54	Shear (lb/sq ft)	0.62	1.38	0.62
Alpha	1.29	Stream Power (lb/ft s)	1.82	9.22	2.77
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	102.65	104.78	200.57
C & E Loss (ft)	0.03	Cum SA (acres)	56.79	18.05	97.89

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1586.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.060	0.045	0.045
W.S. Elev (ft)	1586.18	Reach Len. (ft)	210.07	264.16	263.43
Crit W.S. (ft)		Flow Area (sq ft)	505.91	362.87	1144.86
E.G. Slope (ft/ft)	0.002517	Area (sq ft)	505.91	362.87	1144.86
Q Total (cfs)	8400.00	Flow (cfs)	1540.17	2179.27	4680.55
Top Width (ft)	525.91	Top Width (ft)	130.49	51.05	344.37
Vel Total (ft/s)	4.17	Avg. Vel. (ft/s)	3.04	6.01	4.09
Max Chl Dpth (ft)	9.64	Hydr. Depth (ft)	3.88	7.11	3.32
Conv. Total (cfs)	167443.6	Conv. (cfs)	30701.4	43441.1	93301.0
Length Wtd. (ft)	258.84	Wetted Per. (ft)	133.90	52.57	346.42
Min Ch El (ft)	1576.54	Shear (lb/sq ft)	0.59	1.08	0.52
Alpha	1.17	Stream Power (lb/ft s)	1.81	6.51	2.12
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	44.74	117.84	148.78
C & E Loss (ft)	0.05	Cum SA (acres)	13.37	18.05	46.97

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.64

INPUT
Description:
Station Elevation Data num= 200

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9611.34	1589.9	9621.75	1589.42	9636.96	1588.65	9648.98	1588	9678.44	1586.69
9687.01	1586.3	9688.8	1586.27	9689.67	1586.26	9689.83	1586.26	9692.2	1586.27
9695.94	1586.3	9696.02	1586.27	9702.94	1586.25	9710.88	1586.22	9732.26	1586.13
9759.53	1586	9772.28	1585.88	9773.25	1585.87	9773.85	1585.87	9774.65	1585.85
9776.76	1585.8	9779.12	1585.77	9798.98	1585.53	9811.48	1585.34	9819.12	1585.2
9826.95	1585.1	9833.02	1584.14	9833.49	1584.07	9833.62	1584.05	9833.92	1584
9834.99	1583.8	9847.36	1582	9850.08	1581.56	9850.47	1581.5	9859.84	1581.26
9868.11	1581	9873.52	1580.9	9876.91	1580.81	9879.3	1580.74	9887.63	1580.58
9888.12	1580.6	9888.46	1580.56	9888.72	1580.56	9890.84	1580.52	9894.66	1580.29
9896.32	1580.2	9899.27	1580.03	9899.33	1580.02	9899.66	1580	9905.6	1579.62
9906.99	1579.5	9909.42	1579.67	9912.11	1579.82	9915.67	1580	9916.03	1580.02
9916.11	1580	9916.25	1580.03	9916.49	1580.05	9917.06	1580.08	9920.52	1580.08
9923.5	1580.1	9926.15	1580.07	9928.5	1580.06	9930.74	1580.04	9941.78	1580.17
9968.94	1580.3	9970.25	1580.39	9971.63	1580.42	9972.25	1580.41	9973.16	1580.4
9973.41	1580.4	9974	1580.31	9974.49	1580.27	9974.73	1580.26	9975.18	1580.07
9975.36	1580	9979.32	1578.4	9979.58	1578.3	9980.38	1578	9980.83	1577.8
9980.94	1577.7	9981.78	1577.41	9984.43	1576.35	9986.44	1576.2	9987.8	1576.07
9988.86	1576	9990.25	1576	9994.67	1576	10000	157610007.48		1576
10009.62	1576.110011.71		1576.2910016.35		1576.610024.23		1577.7510026.01		1578
10037.17	1579.510041.12		158010045.39		1580.5410051.59		1581.3310052.11		1581.4
10058.41	1580.610060.47		1580.3210063.07		158010063.77		1579.9210063.99		1579.89
10064.19	1579.910064.77		1579.810065.82		1579.6710069.34		1579.2610072.57		1578.88
10075.61	1579.110080.25		1579.4910082.27		1579.6510086.42		158010089.24		1580.25
10093.01	1580.610093.05		1580.5810119.02		1580.5110160.22		1580.8510162.49		1580.87
10164.21	1580.910165.52		1580.9110166.72		1580.92 10168.5		1580.9910170.58		1581.02
10172.85	1581.110173.72		1581.110174.62		1581.1210175.89		1581.1510176.99		1581.17
10178.25	1581.210182.83		1581.3310184.42		1581.3610187.54		1581.34 10187.8		1581.35
10191.03	1581.410191.04		1581.4210191.38		1581.4210191.43		1581.4310195.21		1581.46
10198.58	1581.510200.12		1581.4610226.14		1581.8710228.27		1582 10230.9		1582.09

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 10231.5  1582.110232.61 1582.1110233.27 1582.1310234.93 1582.1810236.88 1582.21
10239.01  1582.310242.84 1582.3410245.26 1582.4510245.59 1582.4710245.89  1582.5
10247.23  1582.6 10249.3 1582.7110251.22 1582.8710254.27 1582.9510256.11 1583.07
10257.97  1583.110258.62 1583.1710259.44 1583.2110260.75 1583.24 10261.6 1583.27
10263.08  1583.310263.73 1583.3310264.86 1583.3610266.37 1583.4310269.61  1583.5
10270.01  1583.510270.62 1583.5110270.89 1583.5110272.78 1583.58   10273 1583.58
10274.61  1583.610274.92 1583.6310276.44 1583.6410279.49 1583.6910281.22 1583.71
10282.61  1583.7 10287.5  1583.810291.67 1583.8410293.45  1583.910294.82 1583.93
10295.23  1583.910296.05 1583.9610296.71 1583.9810297.71    1584 10304.4 1584.18
   10308  1584.310309.07 1584.2910310.31 1584.3210312.31  1584.410315.66 1584.49
10318.37  1584.610323.78 1584.8710327.72 1585.1510341.11    158610342.55 1586.09

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9611.34     .06 9973.16    .04510052.11    .05510093.01    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9973.1610052.11            327.74  314.05   284.2            .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1584.60   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.66   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1583.95   Reach Len. (ft)         327.74     314.05     284.20
  Crit W.S. (ft)                      Flow Area (sq ft)        456.01     485.35     617.79
  E.G. Slope (ft/ft)       0.005797   Area (sq ft)             456.01     485.35     617.79
  Q Total (cfs)             8400.00   Flow (cfs)              1896.41    4056.10    2447.49
  Top Width (ft)             461.69   Top Width (ft)           138.96      78.95     243.78
  Vel Total (ft/s)             5.39   Avg. Vel. (ft/s)           4.16       8.36       3.96
  Max Chl Dpth (ft)            7.95   Hydr. Depth (ft)           3.28       6.15       2.53
  Conv. Total (cfs)        110324.5   Conv. (cfs)             24907.2    53272.3    32145.0
  Length Wtd. (ft)           305.18   Wetted Per. (ft)         139.22      80.09     244.09
  Min Ch El (ft)            1576.00   Shear (lb/sq ft)           1.19       2.19       0.92
  Alpha                        1.45   Stream Power (lb/ft s)     4.93      18.33       3.63
  Frctn Loss (ft)              2.05   Cum Volume (acre-ft)      99.69     102.33     196.02
  C & E Loss (ft)              0.02   Cum SA (acres)            55.78      17.65      96.18

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1585.52   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.78   Wt. n-Val.                        0.045      0.055
  W.S. Elev (ft)            1584.74   Reach Len. (ft)         327.74     314.05     284.20
  Crit W.S. (ft)                      Flow Area (sq ft)                  547.07     811.36
  E.G. Slope (ft/ft)       0.005555   Area (sq ft)                       547.07     811.36
  Q Total (cfs)             8400.00   Flow (cfs)                        4688.28    3711.72
  Top Width (ft)             322.37   Top Width (ft)                      78.72     243.65
  Vel Total (ft/s)             6.18   Avg. Vel. (ft/s)                    8.57       4.57
  Max Chl Dpth (ft)            8.74   Hydr. Depth (ft)                    6.95       3.33
  Conv. Total (cfs)        112698.8   Conv. (cfs)                       62900.4    49798.4
  Length Wtd. (ft)           300.84   Wetted Per. (ft)                    84.20     244.77
  Min Ch El (ft)            1576.00   Shear (lb/sq ft)                    2.25       1.15
  Alpha                        1.31   Stream Power (lb/ft s)             19.31       5.26
  Frctn Loss (ft)              2.05   Cum Volume (acre-ft)      43.52     115.08     142.87
  C & E Loss (ft)              0.05   Cum SA (acres)            13.05      17.65      45.19

Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 2.58

INPUT
Description:
Station Elevation Data    num=     145
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9693.43  1588.1 9694.74    1588  9714.4  1586.2 9716.52    1586 9717.07 1585.95
 9739.53    1584 9751.16 1583.55 9791.71    1582 9823.44 1580.82 9825.47 1580.75
 9825.62  1580.8 9825.94 1580.76 9827.99 1580.73 9840.64 1580.55 9846.34 1580.48
 9851.95  1580.4 9856.83 1580.33 9862.81 1580.24 9864.51 1580.21 9865.35  1580.2
 9878.21    1580 9891.25 1579.78 9892.32 1579.76 9894.45 1579.71 9895.09 1579.69
 9896.99  1579.7 9901.69 1579.52 9902.24 1579.51 9903.44 1579.55 9903.45 1579.55
 9931.67  1579.9 9933.44 1579.94 9934.18 1579.95 9934.66 1579.95 9935.34 1579.96
 9935.66    1580 9935.83 1579.97 9936.15 1579.97 9936.27 1579.98 9936.36 1579.98
 9936.43    1580 9938.42    1580 9939.76    1580 9958.81    1580    9962 1579.91
 9962.35  1579.9 9962.89  1579.9 9963.62 1579.89 9964.86 1579.86 9967.25 1579.82
 9972.13  1579.7 9972.62 1579.73 9972.68  1579.7 9973.52 1579.36 9976.65    1578
 9980.89  1576.2 9981.41    1576 9982.84 1575.42 9986.42    1574 9986.53 1573.89
 9986.57  1573.9 9986.71 1573.79 9987.08 1573.65 9994.39 1573.74   10000  1573.8
10003.56  1573.910013.86    157410015.24 1574.0210016.03 1574.0310017.78 1574.05
10019.19  1574.5 10020.6 1574.8610021.44  1575.110022.05 1575.2710022.49 1575.38
10022.74  1575.410024.94    157610026.68 1576.4910031.76    157810034.11 1578.73
10034.79  1578.910043.08 1578.8810056.54 1578.7510058.44 1578.2910059.03 1578.14
10059.67    157810061.46 1577.5610062.28 1577.3710068.03    157610068.91 1575.77
10069.39  1575.710069.56 1575.6210070.24  1575.710071.47 1575.8510071.96 1575.91
10072.76    157610079.17 1576.7910087.59 1577.8710090.57 1577.8810092.11 1577.86
10093.18  1577.9 10096.9 1577.8810103.26 1577.9610103.87 1577.9710104.28 1577.98
10104.68    157810106.53    157810158.38 1578.4610160.52 1578.4710165.58 1578.52
10171.82  1578.610175.41 1578.6110202.85 1579.0110202.99 1579.0210203.44 1579.04
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10203.52    157910203.99 1579.0510204.83 1579.0710205.22 1579.0910211.79 1579.33
10213.86  1579.410217.85 1579.5810219.97 1579.6610223.64 1579.8310224.79 1579.81
10276.01  1579.810279.47 1579.7610279.73 1579.7610280.47 1579.7410290.41  1579.9
10295.83    158010325.49 1581.0310341.32 1581.6610341.58 1581.6910343.55 1581.93
 10343.8    158210344.34    158210350.33  1582.710361.52    1584 10365.3 1584.43
10368.83  1584.810373.16 1585.2710379.14    158610386.14 1586.8910392.76 1587.67

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9693.43     .06 9972.62    .04510034.79    .05510079.17    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9972.1310034.79           323.76  326.08  295.37            .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1582.53   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.88   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1581.64   Reach Len. (ft)         323.76     326.08     295.37
  Crit W.S. (ft)                      Flow Area (sq ft)       246.64     400.30     802.17
  E.G. Slope (ft/ft)       0.007914   Area (sq ft)            246.64     400.30     802.17
  Q Total (cfs)             8400.00   Flow (cfs)              694.09    3974.80    3731.11
  Top Width (ft)             539.53   Top Width (ft)          170.79      62.66     306.08
  Vel Total (ft/s)             5.80   Avg. Vel. (ft/s)          2.81       9.93       4.65
  Max Chl Dpth (ft)            7.99   Hydr. Depth (ft)          1.44       6.39       2.62
  Conv. Total (cfs)         94420.8   Conv. (cfs)             7802.0    44679.0    41939.8
  Length Wtd. (ft)           313.99   Wetted Per. (ft)        170.85      64.60     306.66
  Min Ch El (ft)            1573.65   Shear (lb/sq ft)          0.71       3.06       1.29
  Alpha                        1.69   Stream Power (lb/ft s)    2.01      30.40       6.01
  Frctn Loss (ft)              1.34   Cum Volume (acre-ft)     97.04      99.14     191.39
  C & E Loss (ft)              0.16   Cum SA (acres)           54.61      17.14      94.38


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1583.42   Element                Left OB    Channel   Right OB
  Vel Head (ft)                1.29   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1582.13   Reach Len. (ft)         323.76     326.08     295.37
  Crit W.S. (ft)                      Flow Area (sq ft)         1.16     430.77     592.24
  E.G. Slope (ft/ft)       0.008583   Area (sq ft)              1.16     430.77     592.24
  Q Total (cfs)             8400.00   Flow (cfs)                1.45    4675.85    3722.70
  Top Width (ft)             208.35   Top Width (ft)            0.48      62.66     145.21
  Vel Total (ft/s)             8.20   Avg. Vel. (ft/s)          1.25      10.85       6.29
  Max Chl Dpth (ft)            8.48   Hydr. Depth (ft)          2.42       6.87       4.08
  Conv. Total (cfs)         90666.8   Conv. (cfs)              15.6    50469.6    40181.6
  Length Wtd. (ft)           314.36   Wetted Per. (ft)          2.90      64.60     149.18
  Min Ch El (ft)            1573.65   Shear (lb/sq ft)          0.21       3.57       2.13
  Alpha                        1.24   Stream Power (lb/ft s)    0.27      38.78      13.37
  Frctn Loss (ft)              1.32   Cum Volume (acre-ft)     43.52     111.56     138.29
  C & E Loss (ft)              0.25   Cum SA (acres)           13.05      17.14      43.92


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 2.52

INPUT
Description:
Station Elevation Data    num=     168
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9765.82  1587.3 9767.18 1587.37 9769.24 1587.41 9769.84 1587.31 9772.84 1586.83
 9778.12     1586 9781.74 1585.44 9784.45 1584.97 9789.64     1584 9798.39 1582.47
 9800.89     1582 9804.31 1581.37 9812.12     1580 9821.23 1578.54 9824.43     1578
 9830.77     1577 9836.32     1576 9837.07 1575.86  9837.1 1575.85 9838.32 1575.86
 9841.19  1575.9 9842.21 1575.92 9842.83 1575.93 9843.42 1575.92 9858.88     1576
 9860.98     1576 9868.52     1576 9869.16     1576 9878.72 1576.56 9879.18 1576.58
  9882.7  1576.6 9885.82 1576.59 9899.54  1576.6 9900.59 1576.61 9902.12 1576.62
 9905.05  1576.6 9906.22 1576.61 9909.45 1576.58 9910.93 1576.58 9915.56 1576.53
 9918.85  1576.5 9919.59 1576.48 9923.33 1576.46 9925.04 1576.46  9925.8 1576.29
  9926.5  1576.1 9926.67 1576.04 9926.88     1576 9929.03 1575.53 9935.68     1574
 9938.13  1573.5 9939.18 1573.39 9939.44 1573.34 9948.08 1573.15 9956.62 1572.98
 9957.17  1573.1 9962.97     1574 9964.01 1574.21 9964.61 1574.31 9965.59 1574.43
 9974.21  1574.6 9982.51 1574.86 9982.69 1574.82 9983.31 1574.69  9983.7 1574.58
  9986.1     1574 9992.12 1572.42 9993.56     1572  9994.1 1571.84 9994.32 1571.78
 9994.82  1571.6 9999.27 1571.87   10000  1571.910000.81 1571.9310003.41     1572
10004.62    157210005.59 1572.0610006.47 1572.0810008.64 1572.61 10011.6 1573.34
10012.67  1573.6 10014.4    157410014.92 1574.1410017.19 1574.6810019.78 1575.21
10023.53    157610028.26 1577.0810028.39 1577.1110030.56 1576.7910030.65 1576.77
10033.05  1576.310034.43    157610037.43 1575.37 10039.3 1574.9810042.94  1574.2
10043.16  1574.210044.64 1574.5610048.56 1575.3910049.98 1575.6810050.57  1575.8
10050.81  1575.910050.94 1575.8810051.59    157610051.76 1576.0510052.15 1576.11
10053.38  1576.310057.26 1576.4910058.97 1576.5710062.24 1576.7310066.71 1576.93
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10070.64  1577.110071.26 1577.1110071.33 1577.1110072.16  1577.110072.99  1577.1
10074.22  1577.110074.47 1577.0810090.65 1577.0910092.09 1577.0910134.81 1577.03
10137.66  1577.110139.12 1577.0410141.31 1577.0610142.78 1577.0510147.33 1577.07
10153.37  1577.110155.81 1577.1410156.76 1577.1310159.34 1577.0910160.18 1577.11
10161.24  1577.1 10161.8 1577.1410162.36 1577.1410162.88 1577.1310163.53 1577.12
10164.15  1577.110164.68 1577.1110170.27 1577.1310174.52 1577.1410191.21 1577.11
10191.46  1577.110191.69 1577.14 10193.9 1577.1710196.57 1577.1810198.04 1577.21
10201.01  1577.210203.86 1577.2410206.83 1577.2910208.13 1577.3610211.93 1577.47
10213.68  1577.610215.27  1577.610217.71 1577.6410220.46 1577.6710249.07    1578
10252.74  1578.210253.67 1578.2210253.95 1578.2310256.31 1578.3610261.88 1578.69
   10285    158010287.65 1580.1710288.49 1580.2410289.65 1580.4210293.05 1580.92
10299.45    158210307.44 1583.24 10312.1 1583.98

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9765.82     .06 9925.04    .04510028.39    .05510074.22    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9925.0410028.39            239.22  329.13  394.08             .1      .3
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CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1581.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1580.66	Reach Len. (ft)	239.22	329.13	394.08
Crit W.S. (ft)		Flow Area (sq ft)	450.82	702.39	868.05
E.G. Slope (ft/ft)	0.002670	Area (sq ft)	450.82	702.39	868.05
Q Total (cfs)	8400.00	Flow (cfs)	1416.84	4258.97	2724.19
Top Width (ft)	482.97	Top Width (ft)	116.70	103.35	262.92
Vel Total (ft/s)	4.16	Avg. Vel. (ft/s)	3.14	6.06	3.14
Max Chl Dpth (ft)	9.06	Hydr. Depth (ft)	3.86	6.80	3.30
Conv. Total (cfs)	162572.2	Conv. (cfs)	27421.4	82427.3	52723.5
Length Wtd. (ft)	321.34	Wetted Per. (ft)	117.12	104.84	263.57
Min Ch El (ft)	1571.60	Shear (lb/sq ft)	0.64	1.12	0.55
Alpha	1.36	Stream Power (lb/ft s)	2.02	6.77	1.72
Frctn Loss (ft)	1.66	Cum Volume (acre-ft)	94.45	95.01	185.72
C & E Loss (ft)	0.12	Cum SA (acres)	53.54	16.52	92.46

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1581.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1581.40	Reach Len. (ft)	239.22	329.13	394.08
Crit W.S. (ft)		Flow Area (sq ft)	267.86	778.42	710.73
E.G. Slope (ft/ft)	0.002495	Area (sq ft)	267.86	778.42	710.73
Q Total (cfs)	8400.00	Flow (cfs)	894.84	4886.44	2618.72
Top Width (ft)	312.62	Top Width (ft)	54.99	103.35	154.28
Vel Total (ft/s)	4.78	Avg. Vel. (ft/s)	3.34	6.28	3.68
Max Chl Dpth (ft)	9.80	Hydr. Depth (ft)	4.87	7.53	4.61
Conv. Total (cfs)	168173.4	Conv. (cfs)	17915.3	97829.6	52428.5
Length Wtd. (ft)	322.42	Wetted Per. (ft)	60.35	104.84	159.10
Min Ch El (ft)	1571.60	Shear (lb/sq ft)	0.69	1.16	0.70
Alpha	1.24	Stream Power (lb/ft s)	2.31	7.26	2.56
Frctn Loss (ft)	1.44	Cum Volume (acre-ft)	42.52	107.03	133.87
C & E Loss (ft)	0.11	Cum SA (acres)	12.84	16.52	42.90

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.46

INPUT
Description:
Station Elevation Data num= 194

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9710.13	1580	9724.88	1578.02	9725.03	1578	9725.17	1577.98	9743.45	1576
9747.12	1575.6	9748.23	1575.5	9750.17	1575.3	9752.87	1575	9756.24	1574.63
9759.55	1574.7	9763.52	1574.75	9770.1	1574.22	9772.24	1574.06	9772.58	1574.03
9773	1574	9773.13	1573.99	9773.16	1573.99	9773.51	1573.96	9773.95	1573.92
9774.21	1573.9	9776.35	1574	9779.56	1574.1	9791.96	1574.78	9795.12	1574.96
9798.17	1575.1	9798.46	1575.14	9799.89	1575.19	9799.92	1575.19	9800.94	1575.21
9801.1	1575.2	9808.66	1575.37	9810.44	1575.39	9815.49	1575.44	9818.42	1575.48
9821.92	1575.5	9822.95	1575.51	9829.75	1575.7	9832.05	1575.68	9835.49	1575.67
9836.61	1575.7	9840.61	1575.69	9842.72	1575.7	9845.71	1575.87	9846.88	1575.93
9847.32	1576	9848.19	1576	9849.36	1576.07	9849.92	1576.1	9852.65	1576.24
9857.77	1576.5	9866.12	1576.19	9869.18	1576.07	9871.02	1576	9885.51	1575.43
9889.53	1575.3	9893.3	1575.12	9894.8	1575.16	9901.9	1575.39	9904.5	1575.44
9911.82	1575.5	9915.49	1575.53	9918.05	1575.5	9920.07	1575.31	9922.14	1575.17
9924.35	1575	9927.63	1574.71	9928.16	1574.7	9937.55	1575.47	9939.69	1575.62
9939.93	1575.6	9940.07	1575.63	9940.16	1575.63	9941.8	1575.67	9941.81	1575.67
9941.82	1575.7	9942.08	1575.67	9944.17	1575.67	9946.02	1575.65	9948.26	1575.62

9948.91	1575.6	9953.83	1575.37	9957.83	1575.21	9958.4	1575.19	9959.85	1575.11
9965.3	1574.7	9966.73	1574.63	9967.3	1574.5	9968.6	1574.2	9968.78	1574.14
9968.98	1574.1	9969.19	1574	9970.16	1573.73	9973.73	1572.82	9977.04	1572
9983.83	1570	9983.93	1570	9984.22	1569.91	9985.21	1569.86	9986.2	1569.9
9986.83	1569.93	9987.06	1569.94	9998.59	1569.4	10000	156910008.19		1568.9
10010.1	1568.7610010.25		1568.8310011.13		1569.2610012.45		157010014.89		1571.1
10015.35	1571.3310016.69		157210018.23		1572.8310020.65		157410022.11		1574.7
10022.42	1574.7710023.01		1574.95	10023.2	1575.0410023.27		1575.0410035.21		1575.1
10045.94	1575.1210051.23		1575.1410057.71		1575.1710060.21		1575.3910066.98		1576
10080.73	1577.2610089.12		1578	10090.2	1578.0910090.46		1578.1110091.36		1578.1
10092.68	1578.1410096.11		1578.3710097.24		1578.4110098.61		1578.3810099.81		1578.4
10100.44	1578.3510109.57		1578.410111.69		1578.410113.61		1578.410115.25		1578.4
10116.98	1578.4410118.77		1578.4510120.29		1578.4510121.15		1578.4210170.23		1578
10208.8	1578.6410209.26		1578.6310210.14		1578.6210212.14		1578.6110218.56		1578.7
10222.48	1578.6810272.17		1578.6910273.64		1578.710275.04		1578.6910278.24		1578.7
10281.1	1578.6610281.12		1578.6510282.11		1578.6410285.65		1578.6410286.36		1578.6
10287.18	1578.6210290.36		1578.5910293.07		1578.6610294.82		1578.6310296.23		1578.6
10299	1578.5510299.78		1578.5310300.51		1578.510303.54		1578.4310303.83		1578.4
10305.83	1578.3810306.88		1578.4310306.98		1578.4410307.21		1578.4510310.33		1578.6
10312.27	1578.7310314.87		1578.8610316.77		1578.9910318.83		1579.11	10323.3	1579.4
10323.4	1579.3610323.64		1579.3710324.24		1579.4510327.22		1579.8310327.64		1579.9
10328.68	158010330.45		1580.2210331.41		1580.3610336.43		1581.0710342.58		1581.9
10344.78	1581.9610348.18		158210348.21		158210350.21		1582		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9710.13	.06	9857.77	.06	9941.82	.045	10023.2	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9941.82	10023.2	221.1	275.02	335.08	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1579.25	Element			
Vel Head (ft)	1.54	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1577.71	Reach Len. (ft)	221.10	275.02	335.08
Crit W.S. (ft)		Flow Area (sq ft)	486.80	444.31	125.50
E.G. Slope (ft/ft)	0.014037	Area (sq ft)	486.80	444.31	125.50
Q Total (cfs)	8400.00	Flow (cfs)	2467.41	5294.85	637.74
Top Width (ft)	358.16	Top Width (ft)	214.15	81.38	62.63
Vel Total (ft/s)	7.95	Avg. Vel. (ft/s)	5.07	11.92	5.08
Max Chl Dpth (ft)	8.95	Hydr. Depth (ft)	2.27	5.46	2.00
Conv. Total (cfs)	70898.2	Conv. (cfs)	20825.6	44689.9	5382.7
Length Wtd. (ft)	265.87	Wetted Per. (ft)	214.55	83.57	62.74
Min Ch El (ft)	1568.76	Shear (lb/sq ft)	1.99	4.66	1.75
Alpha	1.57	Stream Power (lb/ft s)	10.08	55.52	8.91
Frctn Loss (ft)	1.69	Cum Volume (acre-ft)	91.88	90.68	181.23
C & E Loss (ft)	0.31	Cum SA (acres)	52.64	15.82	90.98

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1580.29	Element			
Vel Head (ft)	1.56	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1578.73	Reach Len. (ft)	221.10	275.02	335.08
Crit W.S. (ft)		Flow Area (sq ft)	437.87	527.31	19.23
E.G. Slope (ft/ft)	0.010182	Area (sq ft)	437.87	527.31	19.23
Q Total (cfs)	8400.00	Flow (cfs)	2313.11	5999.25	87.64
Top Width (ft)	225.80	Top Width (ft)	139.19	81.38	5.23
Vel Total (ft/s)	8.53	Avg. Vel. (ft/s)	5.28	11.38	4.56
Max Chl Dpth (ft)	9.97	Hydr. Depth (ft)	3.15	6.48	3.68
Conv. Total (cfs)	83244.9	Conv. (cfs)	22923.1	59453.2	868.5
Length Wtd. (ft)	264.39	Wetted Per. (ft)	142.84	83.57	8.89
Min Ch El (ft)	1568.76	Shear (lb/sq ft)	1.95	4.01	1.37
Alpha	1.38	Stream Power (lb/ft s)	10.29	45.63	6.26
Frctn Loss (ft)	1.63	Cum Volume (acre-ft)	40.58	102.10	130.57
C & E Loss (ft)	0.22	Cum SA (acres)	12.31	15.83	42.18

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.41

INPUT
Description:
Station Elevation Data num= 275

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9642.5	1582	9643.88	1582	9659.48	1581.27	9661.08	1581.21	9663.47	1581.13
9666.9	1581	9675.85	1580.67	9675.99	1580.67	9676.04	1580.67	9677.53	1580.38
9679.41	1580	9687.11	1578.52	9689.91	1578	9697.38	1576.57	9698.86	1576.32
9700.6	1576	9702.36	1575.68	9704.51	1575.27	9714.22	1574.59	9717.41	1574.37
9718.62	1574.3	9719.54	1574.22	9720.05	1574.17	9722.04	1574	9724.54	1573.8

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 9726.02  1573.7 9729.54  1573.4 9735.36 1572.96 9738.74 1573.22 9742.72  1573.5
 9750.49    1574 9750.53    1574 9750.58    1574 9750.61    1574 9750.63    1574
 9753.69 1574.09 9754.34  1574.1  9759.2 1574.21 9761.28 1574.24 9763.84  1574.3
 9765.77 1574.36 9766.24 1574.31 9766.67 1574.26 9769.32    1574 9769.76    1574
  9770.6 1573.87 9787.45 1573.92 9787.66 1573.92 9787.81 1573.92 9788.12  1573.9
 9793.41 1573.52 9800.72 1572.99 9800.98    1573 9811.75 1573.53 9812.24  1573.5
 9822.06 1573.78 9823.78 1573.57 9824.91 1573.44 9829.28 1572.95 9831.01  1572.7
 9832.01 1572.63 9837.95 1572.51 9842.31  1572.4 9861.03 1572.22  9861.7  1572.3
 9862.41 1572.25 9862.72 1572.23 9862.96 1572.25 9866.22 1572.49 9867.36  1572.5
  9870.8 1572.68 9886.65 1573.32 9886.79 1573.32  9886.8 1573.32 9889.78  1573.3
 9890.05 1573.26 9893.74 1573.18 9894.41  1573.2 9895.26 1573.22 9899.57  1573.2
 9901.52 1573.21 9902.33 1573.21 9904.89 1573.24 9906.93 1573.27 9908.59  1573.3
 9910.98 1573.31 9913.24 1573.35 9917.39  1573.4 9919.38 1573.43 9921.36  1573.5
 9925.07 1573.52 9926.23 1573.54 9926.86 1573.54 9931.93  1573.6 9932.14  1573.6
 9937.01 1573.71 9937.36 1573.73 9938.03 1573.69 9938.14 1573.69 9940.43  1573.6
  9940.8 1573.62 9941.15 1573.61 9942.96 1573.53 9943.64  1573.5    9946  1573.4
 9948.05 1573.25 9949.77 1573.19  9951.2 1573.12 9951.56 1573.05 9952.12    1573
    9953 1572.97 9961.59 1572.85  9962.4 1572.86 9963.73 1572.88 9965.08  1572.9
 9968.49 1572.81 9970.64 1572.84 9971.75 1572.54  9972.4 1572.34 9973.31    1572
 9974.42 1571.68 9979.99    1570 9983.77 1568.98 9987.08    1568 9990.44  1567.2
 9990.58 1567.16 9993.73 1566.86   10000  1566.4 10002.1 1566.0510008.18  1565.5
10011.39 1566.6910015.16    156810018.21 1569.0610020.04 1569.6810020.96    1570
10021.69 1570.2510026.71    157210027.18 1572.1710027.38 1572.2710027.75  1572.4
10029.11 1572.9110032.23 1573.2310034.77 1573.4310036.99 1573.5810046.38    1574
 10050.6  1574.210060.64 1574.5310069.18 1574.3510077.42 1574.2310077.51  1574.3
10081.99 1574.2910089.97 1574.3810092.57 1574.3910094.06  1574.410097.67  1574.4
10101.34 1574.4610106.62 1574.5410111.18 1574.5810120.58 1574.6910133.53  1574.9
10136.83 1574.6910145.63 1574.3410148.91  1574.210149.96 1574.1710150.89  1574.1
10154.65    157410157.03 1573.9210157.54  1573.910158.76 1573.8510161.12  1573.8
10162.14  1573.810168.41    157410177.47 1574.2910198.69 1574.9510202.31  1575.1
10202.51 1575.0810203.16 1575.0910203.53 1575.0910205.41 1575.1410210.54  1575.2
10211.69 1575.1710214.49 1575.18 10217.1 1575.2110221.21 1575.2310224.37  1575.2
10226.74 1575.2510228.44 1575.2510245.56 1575.3410246.31 1575.3210247.22  1575.3
10248.34 1575.2910254.38 1575.26 10256.1 1575.3310257.25  1575.4 10259.6  1575.5
10260.87 1575.5810262.12 1575.5510263.53 1575.5210265.03 1575.4910271.68  1575.5
10273.21  1575.410277.61 1575.2310280.06 1575.1910283.22 1575.1610285.19  1575.2
10287.57 1575.1710290.88 1575.2410292.74 1575.1910293.36 1575.1510294.13    1575
10295.32 1574.94 10296.3 1574.8310305.65    157410308.25 1573.7610308.75  1573.7
10308.98 1573.6810309.32 1573.6510310.09 1573.5710311.24 1573.4310313.55    1573
10314.09 1572.8710316.74 1572.6210319.18 1573.1710320.76 1573.6110322.72    1574
10323.87 1574.2310323.99 1574.2710324.32 1574.3810324.77 1574.4410325.34  1574.5
10326.36 1574.7210330.37 1575.4610330.71 1575.4710333.66  1575.510336.54  1575.6
10338.78 1575.6310340.56 1575.6610343.72 1575.78 10344.8 1575.8110345.58  1575.8
10347.52  1575.910348.17 1575.9210348.55 1575.9310349.84    157610375.26  1576.6
10385.27 1576.8210399.55 1577.1110408.36 1577.2710431.32    157810449.65  1578.3
10459.37 1578.38 10465.3 1578.4310476.98 1578.5410482.94 1578.6110488.38  1578.7
10493.28 1578.75 10497.5 1578.7910501.26 1578.8210504.74 1578.8410507.92  1578.8
10510.86 1578.8410513.61 1578.8410518.41 1578.8410533.75 1578.8610534.17  1578.9
10546.67    157910555.21  1579.110557.43 1579.1310564.25 1579.1710566.62  1579.2
10567.76 1579.2110581.55 1579.3510597.16 1579.5110613.48 1579.7210631.05    1580

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
  9642.5     .06 9970.64    .04510029.11     .0610292.74    .05510330.37     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9970.6410029.11           318.45  326.48  347.74             .1       .3
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CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1577.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.	0.060	0.045	0.059
W.S. Elev (ft)	1576.75	Reach Len. (ft)	318.45	326.48	347.74
Crit W.S. (ft)		Flow Area (sq ft)	904.16	477.51	684.48
E.G. Slope (ft/ft)	0.003596	Area (sq ft)	904.16	477.51	684.48
Q Total (cfs)	8400.00	Flow (cfs)	2971.18	3742.59	1686.23
Top Width (ft)	685.53	Top Width (ft)	274.19	58.47	352.87
Vel Total (ft/s)	4.07	Avg. Vel. (ft/s)	3.29	7.84	2.46
Max Chl Dpth (ft)	11.25	Hydr. Depth (ft)	3.30	8.17	1.94
Conv. Total (cfs)	140084.9	Conv. (cfs)	49549.6	62414.3	28120.9
Length Wtd. (ft)	325.87	Wetted Per. (ft)	274.67	60.63	353.50
Min Ch El (ft)	1565.50	Shear (lb/sq ft)	0.74	1.77	0.43
Alpha	1.96	Stream Power (lb/ft s)	2.43	13.86	1.07
Frctn Loss (ft)	1.50	Cum Volume (acre-ft)	88.35	87.77	178.11
C & E Loss (ft)	0.03	Cum SA (acres)	51.40	15.38	89.38

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1578.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.82	Wt. n-Val.	0.060	0.045	0.060
W.S. Elev (ft)	1577.62	Reach Len. (ft)	318.45	326.48	347.74
Crit W.S. (ft)		Flow Area (sq ft)	573.53	528.40	349.21
E.G. Slope (ft/ft)	0.004129	Area (sq ft)	573.53	528.40	349.21
Q Total (cfs)	8400.00	Flow (cfs)	2442.97	4747.78	1209.26
Top Width (ft)	290.00	Top Width (ft)	125.64	58.47	105.89
Vel Total (ft/s)	5.79	Avg. Vel. (ft/s)	4.26	8.99	3.46
Max Chl Dpth (ft)	12.12	Hydr. Depth (ft)	4.56	9.04	3.30
Conv. Total (cfs)	130729.8	Conv. (cfs)	38020.1	73890.0	18819.8
Length Wtd. (ft)	326.26	Wetted Per. (ft)	130.96	60.63	108.78
Min Ch El (ft)	1565.50	Shear (lb/sq ft)	1.13	2.25	0.83
Alpha	1.57	Stream Power (lb/ft s)	4.81	20.18	2.87

Frctn Loss (ft)	1.57	Cum Volume (acre-ft)	38.01	98.76	129.15
C & E Loss (ft)	0.03	Cum SA (acres)	11.64	15.38	41.75

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.35

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9659.48	1576.1	9673.12	1576	9683.76	1575.67	9692.72	1575.4	9705.89	1575.01
9712.65	1574.83	9719.43	1574.66	9721.28	1574.62	9767.8	1574.7	9776.68	1574.45
9787.89	1574	9794.57	1573.89	9805.17	1573.12	9814.68	1572.31	9823.31	1571.46
9833.13	1570.98	9839.7	1570.53	9850.48	1570.82	9859.77	1570.87	9861.44	1570.82
9884.01	1570.85	9897.66	1569.98	9898.7	1569.8	9898.78	1569.84	9915	1570
9920.5	1570.05	9922.22	1570.2	9931.3	1571	9947.41	1570.94	9950.98	1570.9
9957.41	1570.85	9965.84	1570.85	9966.72	1570.5	9967.26	1570.33	9967.51	1570.26
9968.29	1570	9969.81	1569.47	9973.56	1568	9977.63	1566.48	9978.67	1566.15
9978.97	1566.03	9979.74	1566.04	9980.37	1566	9981.42	1565.92	9983.02	1565.84
9985	1565.79	9985.63	1565.83	9992.93	1565.7	9993.67	1565.65	9994.28	1565.62
9996.59	1565.4910003.56		1565.3810004.51		1565.210006.21		1564.9210006.35		1564.89
10006.72	1565.0110009.92		1566	10013.1	1567	10016.3	1567.7310017.35		1568
10021.52	1569.1710022.49		1569.4310023.42		1569.610031.61		1569.91	10043.6	1570.1
10057.65	157210068.61		1573.6210071.38		157410076.84		1574.0310097.57		1574.4
10110.87	1574.8410125.59		1575.17	10150.3	1575.8110169.28		1575.7810170.87		1575.76
10196.07	1575.73	10204.6	1575.7310239.93		1575.5610247.66		1575.5	10266.6	1575.29
10270.75	1575.210275.98		1575.13						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9659.48	.06	9884.01	.06	9965.84	.04510071.38		.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9965.8410071.38		341.44	328.76 318.53	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1575.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1574.88	Reach Len. (ft)	341.44	328.76	318.53
Crit W.S. (ft)		Flow Area (sq ft)	690.68	646.23	22.04
E.G. Slope (ft/ft)	0.006118	Area (sq ft)	690.68	646.23	22.04
Q Total (cfs)	8400.00	Flow (cfs)	2847.32	5522.04	30.63
Top Width (ft)	401.96	Top Width (ft)	255.11	105.54	41.32
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	4.12	8.54	1.39
Max Chl Dpth (ft)	9.99	Hydr. Depth (ft)	2.71	6.12	0.53
Conv. Total (cfs)	107391.0	Conv. (cfs)	36402.0	70597.3	391.6
Length Wtd. (ft)	328.83	Wetted Per. (ft)	255.35	107.39	41.33
Min Ch El (ft)	1564.89	Shear (lb/sq ft)	1.03	2.30	0.20
Alpha	1.41	Stream Power (lb/ft s)	4.26	19.64	0.28
Frctn Loss (ft)	2.50	Cum Volume (acre-ft)	82.52	83.56	175.29
C & E Loss (ft)	0.03	Cum SA (acres)	49.46	14.77	87.81

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1576.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1575.76	Reach Len. (ft)	341.44	328.76	318.53
Crit W.S. (ft)		Flow Area (sq ft)	306.32	738.86	58.08
E.G. Slope (ft/ft)	0.005684	Area (sq ft)	306.32	738.86	58.08
Q Total (cfs)	8400.00	Flow (cfs)	1599.06	6654.00	146.94
Top Width (ft)	206.24	Top Width (ft)	59.64	105.54	41.06
Vel Total (ft/s)	7.61	Avg. Vel. (ft/s)	5.22	9.01	2.53
Max Chl Dpth (ft)	10.87	Hydr. Depth (ft)	5.14	7.00	1.41
Conv. Total (cfs)	111415.0	Conv. (cfs)	21209.4	88256.6	1949.0
Length Wtd. (ft)	327.70	Wetted Per. (ft)	65.53	107.39	41.96
Min Ch El (ft)	1564.89	Shear (lb/sq ft)	1.66	2.44	0.49
Alpha	1.20	Stream Power (lb/ft s)	8.66	21.99	1.24
Frctn Loss (ft)	2.39	Cum Volume (acre-ft)	34.80	94.02	127.53
C & E Loss (ft)	0.04	Cum SA (acres)	10.96	14.77	41.17

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.28

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9730.94	1574	9751.71	1573.08	9820.8	1572.03	9832.74	1571.82	9842.62	1571.71
9853.12	1571.63	9862.51	1571.54	9871.22	1571.5	9882.5	1571.4	9891.45	1571.17
9904.01	1570.91	9911.32	1570.81	9918.93	1570.64	9928.14	1570.3	9935.66	1570
9941.42	1569.74	9941.94	1569.72	9942.65	1569.69	9962.96	1568.9	9964.66	1568.92
9966.07	1568.83	9967.86	1568.64	9968.35	1568.6	9969.47	1568.3	9970.11	1568.2

```
 9971.15    1568 9974.37 1567.21 9979.36    1566 9980.76  1565.6 9983.29 1565.08
 9987.18 1564.9410009.17 1564.0810010.63 1564.4910011.99  1564.810015.77    1566
10019.23 1567.0310022.64    156810026.45 1569.17 10026.9  1569.310029.71 1569.28
10067.52 1569.0810082.71 1568.9910093.45    156810100.84  1566.810101.15 1566.77
 10101.2 1566.7710101.34 1566.7510104.89 1566.4510107.23  1566.210110.97  1566.2
10111.76  1566.2 10115.9  1566.310118.06 1566.2910119.14  1566.310122.05 1566.34
 10123.2 1566.3410126.98 1566.33 10127.1 1566.3310127.55  1566.3 10127.8 1566.34
10142.77 1567.3910150.53 1567.2910151.33 1567.3110152.41  1567.310153.83 1567.37
10153.95 1567.3810160.47    156810163.13 1568.26 10166.3  1568.510168.75 1568.83
 10179.6    157010180.62 1570.1110197.49 1571.9710197.86    157210207.98 1573.51
10211.08 1573.8110211.24 1573.82 10213.6    157410218.77  1574.410225.62 1574.89
 10227.2 1575.04 10228.9 1575.15 10231.3 1575.3510233.62  1575.510237.36 1575.64
10237.85 1575.67 10240.4 1575.7510241.53 1575.8110246.93  1575.9 10247.4 1575.96
10247.82 1575.96 10248.1 1575.9710249.99 1575.9810251.34    157610252.17 1576.01
10257.12 1576.13

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9730.94     .06 9966.07    .045 10026.9    .05510082.71    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9966.07 10026.9           507.59  485.85  455.74            .1       .3
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1573.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1572.01	Reach Len. (ft)	507.59	485.85	455.74
Crit W.S. (ft)		Flow Area (sq ft)	166.57	371.77	618.64
E.G. Slope (ft/ft)	0.009810	Area (sq ft)	166.57	371.77	618.64
Q Total (cfs)	8400.00	Flow (cfs)	449.85	4011.55	3938.60
Top Width (ft)	375.97	Top Width (ft)	144.12	60.83	171.03
Vel Total (ft/s)	7.26	Avg. Vel. (ft/s)	2.70	10.79	6.37
Max Chl Dpth (ft)	7.93	Hydr. Depth (ft)	1.16	6.11	3.62
Conv. Total (cfs)	84811.6	Conv. (cfs)	4542.0	40503.1	39766.5
Length Wtd. (ft)	470.61	Wetted Per. (ft)	144.17	62.03	171.49
Min Ch El (ft)	1564.08	Shear (lb/sq ft)	0.71	3.67	2.21
Alpha	1.42	Stream Power (lb/ft s)	1.91	39.60	14.07
Frctn Loss (ft)	2.45	Cum Volume (acre-ft)	79.16	79.72	172.95
C & E Loss (ft)	0.25	Cum SA (acres)	47.90	14.14	87.03

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1574.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1572.93	Reach Len. (ft)	507.59	485.85	455.74
Crit W.S. (ft)		Flow Area (sq ft)		427.99	490.62
E.G. Slope (ft/ft)	0.009629	Area (sq ft)		427.99	490.62
Q Total (cfs)	8400.00	Flow (cfs)		4815.87	3584.13
Top Width (ft)	163.68	Top Width (ft)		60.83	102.85
Vel Total (ft/s)	9.14	Avg. Vel. (ft/s)		11.25	7.31
Max Chl Dpth (ft)	8.85	Hydr. Depth (ft)		7.04	4.77
Conv. Total (cfs)	85602.8	Conv. (cfs)		49077.6	36525.2
Length Wtd. (ft)	469.34	Wetted Per. (ft)		66.14	109.49
Min Ch El (ft)	1564.08	Shear (lb/sq ft)		3.89	2.69
Alpha	1.14	Stream Power (lb/ft s)		43.77	19.68
Frctn Loss (ft)	3.35	Cum Volume (acre-ft)	33.60	89.61	125.52
C & E Loss (ft)	0.23	Cum SA (acres)	10.73	14.14	40.64

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.19

INPUT
Description:

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Station Elevation Data    num=     287
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
 9723.46   1571.8 9728.95 1571.43 9730.39 1571.31 9730.46   1571.3 9730.76 1571.24
 9731.33   1571.2  9731.9 1571.21 9734.14 1571.21 9736.07 1571.27 9736.49 1571.26
 9775.69   1570.6 9776.52 1570.61 9777.58 1570.56 9778.19 1570.55 9779.19 1570.54
 9804.69     1570 9820.24 1569.56  9847.7  1568.5 9865.32 1568.46 9867.58 1568.44
    9872   1568.4 9880.12 1568.35 9888.89 1568.28 9897.64  1568.2 9915.96    1568
 9931.66   1567.2 9935.12 1567.03 9936.77 1566.96 9936.98 1566.99 9937.25    1567
 9937.68     1567 9952.54 1567.19 9957.19 1567.25 9958.92 1567.24 9963.83  1567.2
 9966.31   1567.2 9968.62 1567.27 9971.44 1567.31 9976.44 1567.47 9982.32 1567.63
 9984.19   1567.7 9985.43 1566.24 9985.51 1566.15 9985.59    1566 9985.76 1565.74
  9987.4     1564 9988.14 1563.54 9988.38 1562.96    9989    1562 9989.73 1560.91
 9990.03   1560.6   10000 1560.6510003.38 1560.7410004.93 1560.7510007.03 1561.19
10010.72     156210016.08 1563.3810018.52    156410020.13 1564.4110026.15  1565.9
10028.45  1565.810035.29 1565.47 10038.6 1565.3610039.66 1565.3110043.43 1565.03
10046.19  1564.910051.22 1564.7210055.79 1564.5710065.63 1564.0610066.56    1564
10067.81  1563.910071.45 1563.7510073.16 1563.8410074.42 1563.7810076.26    1564
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10078.62  1564.310079.15 1564.3410080.07 1564.4510080.82 1564.5510083.78 1564.85
10084.85    156510086.23 1565.2410088.49 1565.6910090.16 1566.0610090.56 1566.09
10090.63  1566.110091.73 1565.9910091.86 1565.9810092.64 1565.9410094.22 1565.94
10095.59  1565.910097.33  1565.910097.92 1565.8710164.19 1565.9610167.61    1566
10169.18    156610172.48    1566 10185.3    156610186.83    156610194.43 1565.84
10195.38  1565.810196.81 1565.7410199.03 1565.6910205.54  1565.510215.64 1565.22
10224.13  1564.410226.48  1564.210228.68    156410229.41 1563.94 10232.8 1563.62
10233.71  1563.710235.93    156410244.19 1565.2210250.28    156610251.65 1566.22
10252.18  1566.3 10254.9 1566.1410257.78    156610260.23 1565.8610265.32 1565.62
10266.67  1565.710267.18 1565.66 10267.9 1565.68 10270.9  1565.710271.89 1565.72
10272.64  1565.710274.57 1565.8110280.31    156610281.25 1566.0310281.56 1566.04
 10282.2  1566.1 10299.4 1566.6410304.07 1566.7610308.91 1566.8910310.95 1566.93
10311.54    156710312.39 1567.0710313.83 1567.2310314.54 1567.3110321.28    1568
10328.05  1568.710328.63 1568.7210329.77 1568.7310330.93  1568.810331.76 1568.81
10350.81  1568.910352.55 1568.9110357.01 1569.0910364.88  1569.1 10374.2 1569.26
10384.24  1569.310388.17 1569.3510393.08 1569.3310394.88 1569.3710395.26 1569.38
10396.28  1569.4 10397.3 1569.3910413.07 1569.3510414.47 1569.3110416.56 1569.26
10420.69  1569.210423.14 1569.1110425.38 1569.0610427.02 1569.0410428.94    1569
10431.99  1568.810434.41  1568.810438.95 1568.5810441.34 1568.4710445.85 1568.51
10446.82  1568.510447.99 1568.4810449.14 1568.4610449.78 1568.4810452.12 1568.43
10453.46  1568.410454.32 1568.4110517.94 1569.0310519.17 1569.0410562.03 1569.73
10569.25  1569.810579.39    157010585.27 1570.0110597.85 1570.02 10603.2 1570.02
10609.02    157010615.06 1570.04 10621.1 1570.0510629.75 1570.0610639.96 1570.07
10643.42  1570.110649.88 1570.0810659.07 1570.0910668.08  1570.110685.43 1570.11
10689.48  1570.110691.49 1570.1110694.26 1570.1110697.93 1570.1110700.78  1570.1
10702.72  1570.110703.65  1570.110708.65 1570.0810710.39 1570.0710711.59 1570.06
10712.12  1570.110716.94    157010722.63 1569.8610723.28 1569.8810724.04 1569.91
10727.56  1569.910730.21 1569.7910732.81 1569.71   10740 1569.1610749.87 1568.42
 10756.2  1568.3 10767.4 1568.0110768.02    156810782.07  1567.710791.45 1567.52
10795.64  1567.610795.78 1567.5610802.75  1567.610804.31 1567.6110807.75 1567.64
10815.05  1567.710844.83    156810854.95 1568.1310871.77 1568.1910876.87 1568.44
10897.13  1569.510904.85    157010908.03 1570.16 10908.8 1570.2110913.81  1570.1
10915.08  1570.110922.28 1570.0210922.75 1570.0210922.88 1570.0110922.93 1570.01
10923.03    157010925.24 1570.0210931.13    157010934.47 1569.9910934.54 1569.99
10940.68    157010940.72    157010940.74    157010941.06 1569.9910943.33 1569.98
10943.45    157010943.48 1569.9810943.54 1569.9710951.69  1569.810952.14  1569.8
10952.38  1569.810973.68 1569.4510987.92 1569.2910989.61 1569.2410991.12 1569.22
10994.62  1569.111000.53 1569.0411002.92 1568.96 11004.7 1568.9511008.38 1568.85
11012.06  1568.811016.29 1568.6711017.87 1568.6711027.74 1568.8211036.59 1568.96
11040.65    1569 11041.9 1569.0111042.81 1569.0211043.37 1569.03 11046.7 1569.04
11079.35  1569.711081.26 1569.7311087.33  1569.911095.07    157011104.37 1570.36
11106.87  1570.411115.07 1570.5911118.22 1570.6511138.64 1571.1411153.38 1571.53
11175.16    157211176.22 1572.03

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9723.46     .06 9984.19    .04510026.15    .05510164.19    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9984.1910026.15           306.52  310.72  225.43            .1       .3
Ineffective Flow      num=       1
   Sta L   Sta R    Elev
   1039311176.22    1572
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1570.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1570.14	Reach Len. (ft)	306.52	310.72	225.43
Crit W.S. (ft)	1568.36	Flow Area (sq ft)	353.27	321.47	1419.13
E.G. Slope (ft/ft)	0.003213	Area (sq ft)	353.27	321.47	2087.19
Q Total (cfs)	8400.00	Flow (cfs)	760.41	2198.38	5441.21
Top Width (ft)	1295.88	Top Width (ft)	185.98	41.96	1067.94
Vel Total (ft/s)	4.01	Avg. Vel. (ft/s)	2.15	6.84	3.83
Max Chl Dpth (ft)	9.54	Hydr. Depth (ft)	1.90	7.66	3.87
Conv. Total (cfs)	148192.2	Conv. (cfs)	13415.1	38783.7	95993.4
Length Wtd. (ft)	264.22	Wetted Per. (ft)	186.05	46.03	367.51
Min Ch El (ft)	1560.60	Shear (lb/sq ft)	0.38	1.40	0.77
Alpha	1.38	Stream Power (lb/ft s)	0.82	9.58	2.97
Frctn Loss (ft)	1.60	Cum Volume (acre-ft)	76.13	75.85	158.80
C & E Loss (ft)	0.12	Cum SA (acres)	45.97	13.57	80.55

Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1570.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1570.13	Reach Len. (ft)	306.52	310.72	225.43
Crit W.S. (ft)	1568.59	Flow Area (sq ft)		321.14	1011.07
E.G. Slope (ft/ft)	0.005496	Area (sq ft)		321.14	1011.07
Q Total (cfs)	8400.00	Flow (cfs)		2773.52	5626.48
Top Width (ft)	254.31	Top Width (ft)		41.96	212.35
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)		8.64	5.56
Max Chl Dpth (ft)	9.53	Hydr. Depth (ft)		7.65	4.76
Conv. Total (cfs)	113304.0	Conv. (cfs)		37410.9	75893.1
Length Wtd. (ft)	263.91	Wetted Per. (ft)		48.46	218.48
Min Ch El (ft)	1560.60	Shear (lb/sq ft)		2.27	1.59

Alpha	1.14	Stream Power (lb/ft s)		19.64	8.84
Frctn Loss (ft)	1.76	Cum Volume (acre-ft)	33.60	85.43	117.66
C & E Loss (ft)	0.03	Cum SA (acres)	10.73	13.57	38.99

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.13

INPUT
Description:
Station Elevation Data num= 285

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9606.68	1570	9609.57	1569.7	9625.91	1568	9628.56	1567.8	9633.23	1567.39
9649.59	1566.4	9671.55	1567.72	9680.17	1568	9700.96	1569.51	9702.89	1569.63
9776.14	1568.4	9800.11	1568	9801.55	1567.96	9837.69	1566.94	9866.87	1566
9868.69	1565.9	9888.98	1565.38	9891.8	1565.3	9893.1	1565.26	9893.93	1565.3
9895.79	1565.4	9897.54	1565.46	9899.29	1565.52	9921.26	1565.8	9922.14	1565.81
9923.8	1565.8	9924.84	1565.79	9924.98	1565.79	9926.72	1565.78	9928.31	1565.75
9932.1	1565.7	9935.87	1565.62	9944.1	1565.64	9957.37	1565.59	9969.33	1565.54
9969.47	1565.5	9972.54	1564.68	9974.46	1564.14	9974.7	1564.07	9974.92	1564
9975.15	1563.9	9981.46	1562	9985.13	1561.08	9988.42	1560	9989.65	1559.62
9990.16	1559.4	9999.95	1559.26	10000	1559.1510008.43		1559.08	10009.6	1559.56
10010.19	1559.810010.39		1559.8910010.65		1560	10011.5	1560.3610015.46		1562
10019.83	1563.810020.13		1563.9	10023.4	1563.4710029.68		1562.610036.59		1562.98
10040.19	1563.210046.94		1563.7510049.78		156410050.73		1564.0810051.21		1564.11
10051.5	1564.110051.78		1564.0410052.03		156410055.21		1563.6210059.77		1563.14
10067.17	1562.310071.09		1561.8310077.62		1562.54	10082.4	1563.1110084.48		1563.36
10089.34	156410090.03		1564.0810090.64		1564.1210091.82		1564.2110093.46		1564.25
10094.34	1564.310102.29		1564.4210108.03		1564.41	10108.2	1564.3910109.51		1564.26
10151.39	1565.510166.56		156610168.03		1566.1310169.21		1566.2610180.05		1567.38
10240.99	1566.310260.29		156610261.84		1565.9910265.68		1565.9710268.71		1565.96
10268.78	156610270.23		1565.9810270.33		1565.9810270.61		1565.9810271.01		1565.98
10282.14	156610284.84		156610288.61		156610288.72		156610288.93		1566
10289.59	156610296.06		1566.0410296.46		1566.04	10297.9	1566.0610298.94		1566.02
10299.44	1566	10299.7	1566.0110299.85		1566.0210299.98		1566.0510300.61		1566.07
10314.64	1566.210315.52		1566.210319.36		1566.2610326.71		1566.3510330.13		1566.4
10332.85	1566.410336.34		1566.510337.24		1566.5110352.27		1566.6310363.29		1566.71
10388.45	1566.910401.09		1566.9810418.79		1567.1210418.89		1567.1210435.02		1567.27
10450.31	1567.410455.23		1567.44	10458.7	1567.4710460.84		1567.4910466.82		1567.54
10474.19	1567.610475.18		1567.5910483.98		1567.6310494.34		1567.6910506.87		1567.78
10522.49	1567.910524.41		1567.9310525.12		1567.9410525.22		1567.9410525.38		1567.94
10525.83	1567.910525.98		1567.9410526.04		1567.95	10526.1	1567.9510526.31		1567.95
10526.79	1568	10526.9	1567.9610526.97		1567.96	10527	1567.9610527.08		1567.96
10527.15	1568	10527.2	1567.9610527.27		1567.9610527.49		1567.9510527.57		1567.95
10527.63	1567.910528.32		1567.9410535.27		1567.9910536.21		156810536.24		1568
10539.79	156810543.86		1568.0110544.73		156810553.05		1567.9510553.19		1567.95
10553.34	1567.910561.29		1567.8610562.51		1567.8310563.32		1567.82	10566.1	1567.76
10574.78	1567.610580.46		1567.4810587.39		1567.3210602.75		1566.9510621.66		1566.49
10623.8	1566.410628.44		1566.3110632.52		1566.2110635.41		1566.1410637.28		1566.1
10641.06	156610643.96		1566.0210645.62		156610645.92		1565.9910645.96		1565.99
10645.99	156610646.02		1565.9910646.05		1565.9910646.16		1565.9910667.95		1565.51
10669.3	1565.510671.37		1565.4910675.35		1565.5210676.52		1565.4710677.98		1565.42
10678.8	1565.410681.28		1565.5510681.57		1565.5610681.74		1565.5710686.54		1566
10694.8	1566.310700.33		1566.3710707.55		1566.5610708.64		1566.5810708.93		1566.59
10715	1566.7	10720.9	1566.7610722.43		1566.810724.31		1566.8210724.49		1566.82
10726.66	1566.910726.96		1566.8910727.27		1566.8910728.89		1566.9410729.28		1566.93
10733.76	156710734.83		1566.9810736.54		1566.9510737.57		1566.9510738.87		1566.92
10740.51	1566.910741.91		1566.8310743.23		1566.810745.06		1566.7210747.11		1566.73
10749.14	1566.910751.56		1566.910753.71		1566.91	10754.9	1566.910758.62		1566.9
10760.83	1566.910766.24		1566.9410766.26		1566.9410766.42		1566.9410768.39		1566.94
10769.46	1566.910769.78		1566.9410773.23		1566.9210773.99		1566.9110778.05		1566.88
10779.25	1566.9	10781.3	1566.910783.14		1566.910784.52		1566.9110785.62		1566.9
10787.35	1566.910788.99		1566.8810791.41		1566.8510794.45		1566.8210796.82		1566.79
10802.61	1566.8	10804.5	1566.7510806.08		1566.73	10807.5	1566.7210810.61		1566.69
10811.65	1566.710814.74		1566.6510817.74		1566.6210818.31		1566.6110821.37		1566.58
10821.7	1566.610821.81		1566.5810824.92		1566.5410824.95		1566.5410828.14		1566.69
10830.38	1566.810835.34		1567.1410839.13		1567.2110841.41		1567.2610843.52		1567.33
10853.08	1567.5	10855.1	1567.5910856.71		1567.6310858.68		1567.7210861.15		1567.77
10873.69	156810889.89		1568.4910930.49		157010952.96		1570.6610994.77		1571.99

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9606.68	.06	9702.89	.06	9969.33	.04510020.13		.05510051.21		.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9969.3310020.13		269.34	278.55	369.36	.1

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
9606.68	9775.45	1570	10544.710994.77		1570

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1568.76	Element			
Vel Head (ft)	1.57	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1567.19	Reach Len. (ft)	269.34	278.55	369.36
Crit W.S. (ft)	1567.19	Flow Area (sq ft)	182.85	308.58	623.53
E.G. Slope (ft/ft)	0.015243	Area (sq ft)	193.25	308.58	786.75
Q Total (cfs)	8400.00	Flow (cfs)	666.10	4085.61	3648.29
Top Width (ft)	857.17	Top Width (ft)	166.84	50.80	639.53
Vel Total (ft/s)	7.53	Avg. Vel. (ft/s)	3.64	13.24	5.85

Max Chl Dpth (ft)	8.11	Hydr. Depth (ft)	1.30	6.07	1.58
Conv. Total (cfs)	68036.7	Conv. (cfs)	5395.1	33091.8	29549.7
Length Wtd. (ft)	311.49	Wetted Per. (ft)	140.61	52.73	394.62
Min Ch El (ft)	1559.08	Shear (lb/sq ft)	1.24	5.57	1.50
Alpha	1.78	Stream Power (lb/ft s)	4.51	73.74	8.80
Frctn Loss (ft)	2.46	Cum Volume (acre-ft)	74.21	73.60	151.36
C & E Loss (ft)	0.37	Cum SA (acres)	44.73	13.24	76.14

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1569.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.	0.060	0.045	0.055
W.S. Elev (ft)	1568.04	Reach Len. (ft)	269.34	278.55	369.36
Crit W.S. (ft)	1567.27	Flow Area (sq ft)	290.35	351.51	661.02
E.G. Slope (ft/ft)	0.008294	Area (sq ft)	290.35	351.51	661.02
Q Total (cfs)	8400.00	Flow (cfs)	1115.91	3744.55	3539.54
Top Width (ft)	392.00	Top Width (ft)	129.33	50.80	211.87
Vel Total (ft/s)	6.45	Avg. Vel. (ft/s)	3.84	10.65	5.35
Max Chl Dpth (ft)	8.96	Hydr. Depth (ft)	2.25	6.92	3.12
Conv. Total (cfs)	92232.7	Conv. (cfs)	12252.8	41115.4	38864.4
Length Wtd. (ft)	309.25	Wetted Per. (ft)	130.54	52.73	213.98
Min Ch El (ft)	1559.08	Shear (lb/sq ft)	1.15	3.45	1.60
Alpha	1.55	Stream Power (lb/ft s)	4.43	36.78	8.57
Frctn Loss (ft)	1.90	Cum Volume (acre-ft)	32.57	83.04	113.34
C & E Loss (ft)	0.14	Cum SA (acres)	10.27	13.24	37.90

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 2.08

INPUT
Description:
Station Elevation Data num= 389

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9471.11	1567.9	9495.49	1567.18	9500.14	1567.16	9502.9	1567.09	9506.51	1567.03
9509.07	1567	9510.22	1566.93	9513.22	1566.82	9515.56	1566.81	9519.08	1566.77
9523.03	1566.7	9526.91	1566.63	9527.24	1566.66	9528.72	1566.61	9530.65	1566.57
9533.57	1566.6	9533.73	1566.57	9535.68	1566.66	9535.91	1566.66	9537.83	1566.53
9546.54	1566.4	9563.92	1566.18	9565.51	1566.17	9565.64	1566.15	9567	1566.17
9574.46	1566.3	9586.74	1566.17	9598.76	1566.07	9602.58	1566.05	9605.93	1566
9613.45	1565.8	9614.08	1565.81	9614.8	1565.79	9615.39	1565.78	9615.78	1565.77
9626.79	1565.5	9627.48	1565.47	9628.83	1565.44	9637.23	1565.26	9638.2	1565.22
9639.16	1565.2	9640.16	1565.16	9646.88	1565.04	9648.09	1565.03	9649.6	1565.01
9651.38	1565	9653.29	1564.95	9654.83	1564.92	9664.37	1564.78	9666.8	1564.73
9668.57	1564.7	9670.41	1564.65	9672.63	1564.6	9674.83	1564.57	9676.98	1564.52
9679.19	1564.5	9681.29	1564.42	9683.25	1564.36	9687.07	1564.21	9688.7	1564.2
9689.74	1564.2	9690.52	1564.19	9691.74	1564.22	9693.94	1564.27	9702.74	1564.13
9705.48	1564.1	9709.19	1564.02	9711.96	1564.01	9712.38	1564	9712.58	1564
9714.87	1563.9	9715.25	1563.92	9715.8	1563.9	9725.27	1563.68	9726.54	1563.62
9727.66	1563.6	9728.6	1563.53	9729.08	1563.51	9731.89	1563.39	9733.37	1563.32
9735.26	1563.2	9736.43	1563.19	9738.77	1563.11	9739.21	1563.1	9742.17	1563.13
9742.46	1563.1	9743.04	1563.11	9743.13	1563.11	9747.45	1563.11	9747.73	1563.12
9749.33	1563.2	9752.47	1563.27	9755.1	1563.29	9756.64	1563.34	9758.72	1563.32
9760.2	1563.3	9761.69	1563.25	9762.74	1563.23	9764.83	1563.27	9766.36	1563.3
9767.85	1563.3	9768.84	1563.38	9770.61	1563.43	9771.53	1563.46	9773.86	1563.54
9774.54	1563.6	9779.22	1563.7	9779.49	1563.7	9780.95	1563.65	9782.33	1563.68
9784.14	1563.7	9788.63	1563.5	9789.24	1563.46	9793.27	1563.37	9796.48	1563.24
9803.06	1563.1	9804.29	1563.07	9805.2	1563.07	9806.1	1563.03	9821.49	1562.33
9827.92	1562	9829.3	1561.93	9840.86	1561.36	9841.45	1561.39	9845.62	1561.62
9847.23	1561.7	9848.45	1561.7	9854.74	1562	9858.97	1562.2	9859.48	1562.23
9860.33	1562.3	9861.43	1562.36	9870.26	1562.55	9871.28	1562.53	9872.21	1562.46
9872.63	1562.4	9873.08	1562.47	9874.24	1562.36	9874.83	1562.43	9875.27	1562.48
9875.66	1562.5	9876.01	1562.51	9876.57	1562.52	9879.32	1562.06	9879.59	1562
9883.75	1561.1	9884.24	1560.96	9885.8	1560.94	9886.01	1560.94	9888.4	1560.96
9889.96	1561	9890.76	1560.96	9891.83	1560.97	9894.87	1561	9896.4	1561.02
9897.89	1561	9901.2	1561.04	9902.35	1561.04	9905.25	1561.04	9906.2	1561.05
9912.67	1561.1	9914.77	1561.08	9916.81	1561.04	9916.92	1561.04	9918.62	1561.03
9918.7	1561	9920.21	1561.03	9920.26	1561.03	9921.75	1561.04	9921.78	1561.04
9923.59	1561	9923.97	1561.04	9926.23	1561.03	9926.45	1561.01	9926.97	1560.99
9931.09	1560.9	9933.09	1560.93	9933.69	1560.98	9935.39	1561.26	9937.33	1561.56
9938.56	1561.7	9939.12	1561.84	9940.16	1562	9943.97	1562.61	9949.44	1563.47

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 9956.81  1563.4 9965.95 1563.38 9973.16 1563.33 9977.22 1563.35 9978.05 1563.13
 9982.23    1562  9987.5 1560.55 9989.47    1560 9992.05  1559.3 9993.94 1558.79
   10000 1558.710020.22 1558.5510022.94 1558.5210023.14 1558.5710025.61 1559.08
10029.54    156010034.82 1561.2410038.29    156210041.95 1562.8910042.54 1563.02
10056.18 1562.3 10058.9  1562.210059.95 1562.15 10064.3    156210064.57 1561.99
10064.88    156210065.26 1561.9710065.76 1561.9610066.71 1561.9510074.49 1561.93
10075.23 1561.910076.16 1561.8810077.67 1561.9110091.75 1563.5110093.46 1563.73
10094.15 1563.810094.49 1563.8710095.68    156410096.35 1564.0710097.87 1564.27
10103.94    156510104.09    1565 10111.5 1564.9710132.16 1564.7910156.55 1564.62
10165.53 1564.610171.17 1564.5610177.41 1564.5310208.22  1564.310212.03 1564.27
10214.33 1564.310215.92 1564.2510235.54  1564.110247.63    156410261.74 1563.85
10271.03 1563.810271.51 1563.7710274.06  1563.8 10275.7 1563.8210276.93  1563.8
10277.21 1563.810281.75 1563.8110283.51 1563.7510285.39 1563.74   10287 1563.74
10289.14 1563.810290.41 1563.7810291.44  1563.810303.53 1563.8410304.79 1563.84
10306.95 1563.910307.38 1563.8610308.26 1563.8710309.17 1563.8710310.02 1563.88
10310.72 1563.9 10311.3 1563.89 10346.1 1563.9810346.26 1563.9810346.38 1563.98
10346.49    156410346.56 1563.9810346.62 1563.98 10346.7 1563.9810346.76 1563.98
10346.83    156410346.89 1563.9810356.86    156410360.88 1564.0110365.95 1564.01
10370.54    156410371.05    156410371.06    156410374.57    156410374.61 1563.97
10376.75 1563.9710382.53 1563.9210393.87 1563.7610398.89  1563.7 10403.5 1563.63
10407.79 1563.5910415.25 1563.51 10416.6  1563.510417.67  1563.510418.46 1563.53
10419.58 1563.5410421.02 1563.5410422.76 1563.5410425.71  1563.610430.07  1563.6
10436.19 1563.6810442.59 1563.7410449.04 1563.7810452.02  1563.810452.34 1563.75
   10464 1563.79 10475.6 1563.8610481.88 1563.9110488.82    156410489.21 1563.98
10489.87    156410497.62 1564.04 10503.9 1564.0610508.68  1564.110517.32 1564.03
10518.87 1564.0110520.13    156410521.11 1563.9810524.11  1563.910525.42 1563.88
10525.79 1563.8710526.35 1563.8410533.75  1563.510536.09  1563.410541.79 1563.17
10545.02    156310546.26 1562.96 10549.6 1562.7510550.23  1562.810550.43 1562.76
10555.97 1562.8710558.39 1562.8710563.89 1562.9110571.52  1562.910574.68 1562.85
10580.29 1562.8110583.32 1562.87 10584.1 1562.8910584.79  1562.910589.78 1563.06
10594.08 1563.1810595.44 1563.2310597.46  1563.310599.93  1563.410601.84 1563.39
 10608.9 1563.56 10609.8  1563.610610.45 1563.6310611.54  1563.710616.88 1563.78
10619.05 1563.8410619.41 1563.8510620.76 1563.9310622.13    156410630.18 1564.35
10637.89 1564.72 10641.5 1564.8610642.27 1564.8910645.84    156510647.75 1565.14
10648.81 1565.1610650.62 1565.2210651.57 1565.2610661.19  1565.610662.18 1565.63
10662.77 1565.6510663.41 1565.6710671.25    156610678.17  1566.210680.72  1566.3
 10692.8 1566.6810700.29 1566.9310713.24 1567.3110722.84  1567.710730.87    1568
10742.89 1568.1310759.86 1568.3210774.36 1568.4910786.73  1568.610807.48 1568.84
10832.92 1569.0410852.34 1569.1910862.86 1569.2710871.64  1569.310875.58 1569.35
10879.39 1569.3610885.79 1569.3710887.32 1569.37   10890  1569.310891.67 1569.35
10903.38 1569.4410918.99 1569.56 10951.8 1569.9310957.06    1570

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9471.11     .06 9870.26     .06 9977.22    .04510042.54    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9977.2210042.54            498.06  502.15  512.37            .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1565.91   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.35   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1565.56   Reach Len. (ft)          498.06     502.15     512.37
  Crit W.S. (ft)                      Flow Area (sq ft)        883.90     370.00    1051.24
  E.G. Slope (ft/ft)       0.004817   Area (sq ft)             883.90     370.00    1051.24
  Q Total (cfs)             8400.00   Flow (cfs)              2926.60    2664.07    2809.33
  Top Width (ft)            1035.69   Top Width (ft)           352.86      65.32     617.51
  Vel Total (ft/s)             3.64   Avg. Vel. (ft/s)           3.31       7.20       2.67
  Max Chl Dpth (ft)            7.04   Hydr. Depth (ft)           2.50       5.66       1.70
  Conv. Total (cfs)        121028.8   Conv. (cfs)             42167.0    38384.4    40477.4
  Length Wtd. (ft)           506.44   Wetted Per. (ft)         353.40      66.44     617.86
  Min Ch El (ft)            1558.52   Shear (lb/sq ft)           0.75       1.67       0.51
  Alpha                        1.71   Stream Power (lb/ft s)     2.49      12.06       1.37
  Frctn Loss (ft)              2.26   Cum Volume (acre-ft)      70.88      71.43     143.57
  C & E Loss (ft)              0.00   Cum SA (acres)            43.13      12.86      70.81


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1567.01   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.53   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1566.47   Reach Len. (ft)          498.06     502.15     512.37
  Crit W.S. (ft)                      Flow Area (sq ft)        556.20     429.49     735.95
  E.G. Slope (ft/ft)       0.004706   Area (sq ft)             556.20     429.49     735.95
  Q Total (cfs)             8400.00   Flow (cfs)              2514.61    3376.09    2509.30
  Top Width (ft)             481.87   Top Width (ft)           124.34      65.32     292.21
  Vel Total (ft/s)             4.88   Avg. Vel. (ft/s)           4.52       7.86       3.41
  Max Chl Dpth (ft)            7.95   Hydr. Depth (ft)           4.47       6.58       2.52
  Conv. Total (cfs)        122445.1   Conv. (cfs)             36655.0    49212.5    36577.6
  Length Wtd. (ft)           505.73   Wetted Per. (ft)         129.32      66.44     294.95
  Min Ch El (ft)            1558.52   Shear (lb/sq ft)           1.26       1.90       0.73
  Alpha                        1.45   Stream Power (lb/ft s)     5.71      14.93       2.50
  Frctn Loss (ft)              2.86   Cum Volume (acre-ft)      29.96      80.54     107.41
  C & E Loss (ft)              0.02   Cum SA (acres)             9.49      12.87      35.76


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.99
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INPUT
Description:
Station Elevation Data num= 406

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9448.59	1566	9453.98	1565.88	9454.53	1565.87	9455.1	1565.86	9456.01	1565.85
9467.29	1565.6	9468.3	1565.6	9469.17	1565.59	9469.96	1565.58	9470.64	1565.56
9478.78	1565.4	9479.81	1565.34	9482.18	1565.18	9483.68	1565.13	9519.17	1564.62
9524.64	1564.5	9538.66	1564.37	9577.19	1564.02	9578.51	1564	9580.53	1563.9
9580.82	1563.9	9581.11	1563.88	9582.04	1563.86	9593.11	1563.35	9595.86	1563.3
9598.7	1563.3	9601.9	1563.19	9606	1563	9616.27	1562.75	9618.88	1562.57
9618.92	1562.6	9620.8	1562.47	9623.24	1562.53	9623.69	1562.54	9626.37	1562.58
9628.96	1562.6	9630.96	1562.71	9631.57	1562.75	9638.58	1562.68	9645.27	1563.48
9646.48	1563.5	9647.52	1563.37	9649.76	1563.3	9649.99	1563.29	9650.35	1563.29
9650.88	1563.3	9651.28	1563.27	9651.72	1563.25	9655.43	1563.06	9656.91	1563.06
9657.55	1563.1	9660.5	1562.79	9670.01	1562.59	9672.34	1562.49	9674.38	1562.41
9675.9	1562.4	9676.79	1562.52	9677.43	1562.54	9679.39	1562.52	9681.06	1562.5
9681.39	1562.5	9695.31	1562.39	9701.21	1562.31	9706.55	1562.2	9713.19	1562
9720.82	1561.8	9723.38	1561.77	9725.14	1561.76	9728.02	1561.73	9728.9	1561.73
9730.1	1561.7	9738.71	1561.9	9744.25	1562	9746.06	1562	9746.36	1562
9747	1562	9748.04	1561.99	9749.41	1561.97	9750.67	1561.95	9752.83	1561.91
9756.43	1561.9	9763.71	1561.81	9765.64	1561.78	9771.9	1561.73	9772.89	1561.74
9776.23	1561.8	9780.23	1561.86	9782.12	1561.88	9783.21	1561.91	9785.43	1561.96
9786.12	1562	9786.93	1562	9790.04	1562.1	9802.49	1562.27	9805.72	1562.29
9817.69	1562.4	9819.22	1562.37	9820.74	1562.4	9822.49	1562.41	9832.89	1562.71
9835.95	1562.7	9838.67	1562.67	9913.07	1563.5	9913.8	1563.51	9914.35	1563.51
9914.35	1563.5	9914.54	1563.44	9918.6	1562	9923.31	1560.37	9923.41	1560.32
9923.83	1560.2	9924.29	1560	9925.63	1559.53	9929.96	1558	9933.13	1556.9
9934.86	1556.3	9951.68	1557.38	9955.66	1557.64	9961.5	1558	9965.93	1558.31
9969.51	1558.5	9972.38	1558.38	9979.63	1558	9981.27	1557.91	9982.04	1557.87
9983.18	1557.8	9985.46	1557.72	9993.63	1557.35	10000	155710005.98		1556.79
10006.97	1556.910014.98		1558	10021.9	1558.9110025.95		1559.4910028.35		1559.53
10031.19	1559.6	10050.3	156010061.78		156010064.49		156010069.01		1560
10074.7	156010079.14		156010083.46		156010088.93		156010093.71		1560
10095.31	156010096.92		1560.0710109.56		1560.0910120.38		1560.2310135.47		1560
10141.53	156010148.98		1559.9410161.89		1559.8710173.68		1559.8310181.72		1559.83
10187.91	1559.810193.37		1559.8710193.93		1559.8810194.61		1559.8810195.13		1559.9
10195.65	1559.910200.91		1559.9410201.33		1559.9610202.04		1559.9910207.61		1559.99
10208.34	156010210.17		1560.0110211.64		156010219.25		156010219.62		1559.99
10220.28	156010222.03		1559.910222.65		1559.910223.16		1559.8610228.51		1559.12
10236.47	155810236.79		1557.9510236.87		1557.9410237.18		1557.910237.82		1557.8
10240.01	1557.5	10242.2	1557.1810242.89		1557.2910244.16		1557.5810247.86		1558
10251.39	1558.510251.95		1558.5610253.37		1558.810254.38		1558.9410256.07		1559.1
10258.88	1559.410260.34		1559.5110262.89		1559.7110263.21		1559.7210264.57		1559.74
10266.49	1559.810266.85		1559.85	10268.2	1559.9210269.84		1559.9610272.87		1559.96
10273.87	156010275.72		1559.9510276.42		1559.9510278.47		1559.8610281.25		1559.74
10283.68	1559.610288.81		1558.9110291.69		1558.5710292.36		1558.4810295.72		1558
10298.07	1557.610299.07		1557.4910299.25		1557.4610302.27		1557.7810303.12		1557.84
10306.16	1557.910306.74		1557.9310307.85		1557.9310308.45		1557.9110309.36		1557.88
10315.63	1557.710316.62		1557.6610317.71		1557.6210318.63		1557.5810318.98		1557.63
10319.8	1557.810320.76		155810325.69		1558.6710329.04		1559.2610330.74		1559.6
10331	1559.710332.95		156010336.05		1560.44	10338.5	1560.8310342.46		1560.87
10352.2	1561.110359.09		1561.2310365.29		1561.33	10369.5	1561.42	10373.9	1561.5
10375.79	1561.510377.95		1561.5510379.85		1561.5810390.03		1561.8910390.73		1561.9
10392.35	1561.9	10392.7	1561.9410394.41		156210396.25		1562.0210403.44		1562.06
10425.29	1562.2	10426.5	1562.210427.66		1562.210429.63		1562.210435.57		1562.21
10437.68	1562.210439.29		1562.2510442.99		1562.2510444.42		1562.2710445.84		1562.31
10447.55	1562.310450.06		1562.3710452.44		1562.3710455.74		1562.3610461.12		1562.38
10462.9	1562.410464.41		1562.3310465.58		1562.3310466.72		1562.3310467.64		1562.33
10475.18	1562.310477.99		1562.3910479.65		1562.4310481.42		1562.4510486.28		1562.5
10488	1562.510490.82		1562.5810492.22		1562.6	10493.7	1562.5910495.09		1562.61
10496.37	1562.610497.67		1562.6310499.87		1562.6510507.53		1562.6510508.81		1562.65
10510.5	1562.710512.89		1562.6610516.07		1562.6610519.22		1562.6610521.73		1562.63
10525.6	1562.610527.55		1562.6510529.23		1562.7110532.28		1562.7810533.93		1562.81
10535.41	1562.810536.48		1562.8310537.54		1562.8410541.55		1562.8510542.97		1562.85
10544.46	1562.910546.16		1562.86	10587.1	1563.0410588.67		1563.0510591.41		1563.05
10592.97	1563.1	10594.7	1563.0610596.23		1563.07	10597.7	1563.0710598.94		1563.05
10599.74	1563.110600.39		1563.0510600.77		1563.0610601.18		1563.0610602.91		1563.07
10604.04	1563.110606.63		1562.9910607.84		1562.9810608.51		1562.9810609.21		1562.98
10610.08	156310610.62		1562.9810611.17		1562.9810611.69		1562.9810612.53		1562.98
10613.14	156310637.89		1562.7110642.34		1562.6410649.49		1562.5210652.43		1562.46
10666.35	1562.210679.78		1562	10684.1	1561.7410684.61		1561.7210685.71		1561.65
10688.38	1561.510692.62		1561.16	10694.6	1560.6110695.81		1560.2610696.12		1560.18
10696.8	156010703.99		1558.0210704.07		155810704.09		1557.9910704.16		1558
10704.99	1557.7510709.18		1557.7710716.48		1557.8710716.86		1557.9510717.27		1558
10724.17	1559.3510727.53		156010736.75		1561.7610737.91		156210738.19		1562.1
10738.31	1562.0810738.55		1562.1210740.12		1562.410743.81		1563.1110750.01		1563.2
10761.58	1563.4610765.59		1563.5510768.04		1563.6210772.18		1563.6910775.26		1563.8
10785.53	156410790.33		1564.1510792.32		1564.1710794.75		1564.1710806.67		1564
10808.36	156410813.09		1563.7910819.48		1563.5510832.35		1563.1110837.18		1563.3
10837.61	1563.3210838.18		1563.3310838.93		1563.3210839.79		1563.2410841.05		1563.3
10842.99	1563.3710848.28		1562.5710849.66		1562.38	10852.5	156210852.85		1561.9
10852.99	1561.9310855.72		1561.8210857.04		1561.7610862.96		1561.47	10865.1	1561.4
10867.55	1561.2710870.31		1561.1110871.59		1561.0610873.86		1560.9410876.28		1560.8
10879.11	1560.7510882.52		1560.6110887.52		1561.0410890.49		1561.2810893.79		1561.5
10896.54	1561.73	10897	1561.7710897.32		1561.8110899.72		156210914.82		1563.2
10924.52	1564								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9448.59	.06	9913.8	.04510025.95		.05510222.03		.05510272.87		.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9913.810025.95		403.84	411.33	415.61	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
9448.59	9912.1	1564

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1563.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1563.30	Reach Len. (ft)	403.84	411.33	415.61
Crit W.S. (ft)	1561.82	Flow Area (sq ft)		584.32	1817.72
E.G. Slope (ft/ft)	0.004200	Area (sq ft)	242.19	584.32	1817.72
Q Total (cfs)	9700.00	Flow (cfs)		3750.18	5949.82
Top Width (ft)	1214.23	Top Width (ft)	290.08	111.01	813.13
Vel Total (ft/s)	4.04	Avg. Vel. (ft/s)		6.42	3.27
Max Chl Dpth (ft)	7.00	Hydr. Depth (ft)		5.26	2.24
Conv. Total (cfs)	149676.8	Conv. (cfs)		57867.5	91809.2
Length Wtd. (ft)	412.91	Wetted Per. (ft)		112.50	815.29
Min Ch El (ft)	1556.30	Shear (lb/sq ft)		1.36	0.58
Alpha	1.38	Stream Power (lb/ft s)		8.74	1.91
Frctn Loss (ft)	2.35	Cum Volume (acre-ft)	64.44	65.93	126.69
C & E Loss (ft)	0.07	Cum SA (acres)	39.45	11.85	62.39

Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1564.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.045	0.055
W.S. Elev (ft)	1563.38	Reach Len. (ft)	403.84	411.33	415.61
Crit W.S. (ft)	1562.30	Flow Area (sq ft)		593.52	916.38
E.G. Slope (ft/ft)	0.006745	Area (sq ft)		593.52	916.38
Q Total (cfs)	9700.00	Flow (cfs)		4870.79	4829.21
Top Width (ft)	362.25	Top Width (ft)		111.24	251.01
Vel Total (ft/s)	6.42	Avg. Vel. (ft/s)		8.21	5.27
Max Chl Dpth (ft)	7.08	Hydr. Depth (ft)		5.34	3.65
Conv. Total (cfs)	118106.7	Conv. (cfs)		59306.5	58800.2
Length Wtd. (ft)	413.40	Wetted Per. (ft)		112.75	254.85
Min Ch El (ft)	1556.30	Shear (lb/sq ft)		2.22	1.51
Alpha	1.15	Stream Power (lb/ft s)		18.19	7.98
Frctn Loss (ft)	2.46	Cum Volume (acre-ft)	26.78	74.64	97.70
C & E Loss (ft)	0.00	Cum SA (acres)	8.78	11.85	32.56

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.90

INPUT
Description:
Station Elevation Data num= 245

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9558.92	1561.8	9559.07	1561.82	9565.85	1561.6	9569.6	1561.49	9618.83	1560
9627.04	1559.7	9628.01	1559.71	9629.15	1559.65	9630.14	1559.59	9630.8	1559.56
9632.34	1559.6	9635.15	1559.6	9638.38	1559.58	9638.69	1559.58	9638.71	1559.58
9641.17	1559.6	9641.41	1559.55	9643.46	1559.52	9643.97	1559.51	9646.53	1559.49
9646.89	1559.5	9649.4	1559.47	9650.44	1559.47	9653.09	1559.45	9654.07	1559.44
9655.4	1559.4	9657.56	1559.41	9658.99	1559.4	9660.04	1559.37	9661.27	1559.37
9661.89	1559.4	9662.36	1559.35	9662.74	1559.33	9663.1	1559.32	9670.76	1559.52
9671.77	1559.5	9672.6	1559.54	9675.28	1559.5	9676.07	1559.5	9676.87	1559.48
9678.16	1559.5	9679.18	1559.43	9680.15	1559.44	9746.34	1558.79	9752.35	1558.71
9761.31	1558.6	9763.95	1558.55	9777.01	1558.36	9779.38	1558.38	9779.57	1558.39
9793.04	1558.5	9794.93	1558.55	9796.76	1558.57	9810	1558.72	9813.41	1558.77
9818.57	1558.8	9827.5	1558.92	9832.18	1558.96	9835.69	1558.98	9838.2	1559.01
9849.57	1559.1	9858.44	1559.23	9859.6	1559.25	9860.93	1559.27	9867.53	1559.35
9872.97	1559.4	9874.1	1559.34	9877.75	1559.09	9885.02	1558.52	9886.98	1558.5
9910.67	1558.3	9923.84	1558.14	9927.08	1558.12	9937.93	1558	9940.59	1557.93
9959.33	1557.4	9967.59	1557.26	9967.92	1557.12	9968.37	1556.91	9970.35	1556
9973.75	1554.5	9975.11	1554	9977.98	1552.74	9979.79	1552	9980.15	1551.84
9980.23	1551.8	9980.39	1551.69	9980.81	1551.47	9981.84	1551.03	10000	1550.97
10000.42	155110003.31		1550.9510003.63		1551.0210005.99		1551.6310007.57		1552
10010.09	1552.6	10016.3	155410018.21		1554.4310019.24		1554.6510022.95		1555.52
10033.34	1555.6	10042.5	1555.610047.39		1555.62	10047.5	1555.6210047.92		1555.6
10051.39	1555.710055.55		155610071.33		1556.6210078.83		1556.9710079.72		1557.02
10080.68	1557.1	10083.2	1557.1310084.89		1557.1810087.26		1557.2810089.98		1557.38
10090.6	1557.410091.07		1557.4110091.22		1557.4110092.38		1557.4410101.38		1557.63
10101.79	1557.610115.83		1557.9710116.96		155810117.07		155810124.84		1558
10125.39	155810125.83		155810126.25		155810130.12		1558	10142.4	1557.88
10147.09	1557.9	10155	1557.9910155.28		155810194.64		1558.4710220.04		1558.8
10232.63	155910245.78		1559.1310265.98		1559.4210283.12		1559.6210305.55		1559.9
10314.14	156010314.79		1559.9810315.42		1559.9810322.06		156010327.04		1560
10343.32	156010358.37		1560	10368.4	156010373.95		156010374.45		1560
10377.91	156010383.05		1559.9910387.11		1559.9910391.19		1559.9910395.32		1559.99
10397.82	156010399.33		1559.97	10399.8	1559.96	10455.8	1558.9210458.82		1558.89
10463.96	1558.710467.96		1558.5310468.94		1558.2410469.26		1558.1710469.42		1558.15
10470.08	155810471.65		1557.5410476.97		155610477.54		1555.8410483.38		1554.29
10483.87	1554.210484.01		1554.1510497.21		1554.13	10499.7	1554.78	10509.3	1556
10510.92	1556.210511.18		1556.2410511.41		1556.25	10512	1556.2910512.33		1556.31
10514.1	1556.510520.95		1557.1910523.07		1557.3710524.11		1557.510524.88		1557.6
10528.59	1557.710530.98		1557.8110531.21		1557.8310533.77		155810534.52		1558.04

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10534.79  1558.1 10536.1 1558.2610538.78 1558.5210539.89 1558.6410541.57 1558.79
10542.32  1558.810546.18 1559.0410550.35 1559.2310553.18 1559.3810555.71 1559.54
10557.59  1559.710559.52 1559.7310561.77    156010563.15 1560.0910563.77 1560.09
10564.74  1560.110565.83 1560.0910566.22  1560.110566.53 1560.1110566.77 1560.13
10566.98  1560.210567.21 1560.18 10567.5  1560.210567.74 1560.2210571.29 1560.45
10575.57  1560.6 10577.9 1560.7410579.28 1560.7910580.19 1560.8110580.85 1560.82
   10582  1560.810583.66 1560.82   10588 1560.8110591.78 1560.8110593.74 1560.81
10594.01  1560.810594.21  1560.810594.63 1560.7910598.02 1560.8510599.93 1560.87
10601.42  1560.910602.67 1560.9510604.94 1561.0210609.72 1561.0610610.58 1561.07
10612.67  1561.110614.21 1561.0610657.31 1561.3810661.89 1561.44 10674.5 1561.62
10676.21  1561.610691.31  1561.810698.92 1561.97 10712.7 1561.98   10723    1562

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9558.92     .06 9872.97     .06 9967.59    .04510022.95    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9967.5910022.95            350.25  330.65  384.15             .1       .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1561.23   Element                Left OB    Channel   Right OB
  Vel Head (ft)                1.04   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1560.19   Reach Len. (ft)         350.25     330.65     384.15
  Crit W.S. (ft)                      Flow Area (sq ft)       479.50     419.47     995.38
  E.G. Slope (ft/ft)        0.008112  Area (sq ft)            479.50     419.47     995.38
  Q Total (cfs)             9700.00   Flow (cfs)             1372.51    4708.81    3618.68
  Top Width (ft)             954.55   Top Width (ft)          354.98      55.36     544.21
  Vel Total (ft/s)             5.12   Avg. Vel. (ft/s)          2.86      11.23       3.64
  Max Chl Dpth (ft)            9.24   Hydr. Depth (ft)          1.35       7.58       1.83
  Conv. Total (cfs)         107701.2  Conv. (cfs)            15239.3    52282.9    40179.0
  Length Wtd. (ft)           356.09   Wetted Per. (ft)        355.07      57.20     545.24
  Min Ch El (ft)            1550.95   Shear (lb/sq ft)          0.68       3.71       0.92
  Alpha                        2.57   Stream Power (lb/ft s)    1.96      41.69       3.36
  Frctn Loss (ft)              2.16   Cum Volume (acre-ft)     61.09      61.19     113.27
  C & E Loss (ft)              0.15   Cum SA (acres)           36.46      11.06      55.92


Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1561.66   Element                Left OB    Channel   Right OB
  Vel Head (ft)                0.77   Wt. n-Val.               0.060      0.045      0.055
  W.S. Elev (ft)            1560.89   Reach Len. (ft)         350.25     330.65     384.15
  Crit W.S. (ft)                      Flow Area (sq ft)        73.05     458.27    1375.92
  E.G. Slope (ft/ft)        0.005299  Area (sq ft)             73.05     458.27    1375.92
  Q Total (cfs)             9700.00   Flow (cfs)              272.05    4410.40    5017.54
  Top Width (ft)             619.94   Top Width (ft)           21.48      55.36     543.10
  Vel Total (ft/s)             5.09   Avg. Vel. (ft/s)          3.72       9.62       3.65
  Max Chl Dpth (ft)            9.94   Hydr. Depth (ft)          3.40       8.28       2.53
  Conv. Total (cfs)         133254.7  Conv. (cfs)             3737.4    60588.3    68929.0
  Length Wtd. (ft)           360.78   Wetted Per. (ft)         24.60      57.20     544.92
  Min Ch El (ft)            1550.95   Shear (lb/sq ft)          0.98       2.65       0.84
  Alpha                        1.91   Stream Power (lb/ft s)    3.66      25.51       3.05
  Frctn Loss (ft)              1.63   Cum Volume (acre-ft)     26.44      69.68      86.76
  C & E Loss (ft)              0.03   Cum SA (acres)            8.68      11.06      28.78


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.84

INPUT
Description:
Station Elevation Data    num=     184
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9334.62    1560 9358.87 1559.74 9362.18  1559.7 9371.86  1559.6 9376.17 1559.54
 9381.17  1559.5 9394.12 1559.37  9408.3 1559.18 9422.86 1558.99 9428.39 1558.93
 9432.87  1558.9 9436.68 1558.87 9441.24 1558.84 9446.36 1558.81 9451.84 1558.77
 9457.18  1558.7 9462.47 1558.71 9468.63 1558.68 9473.76 1558.66 9478.75 1558.63
 9482.54  1558.6 9487.25 1558.59 9493.18 1558.54 9500.78 1558.45 9508.45 1558.36
 9516.18  1558.3 9523.95 1558.14 9524.89 1558.14 9533.38 1558.04 9533.56 1558.04
 9533.66    1558 9533.73 1558.04 9533.78 1558.04  9533.9 1558.04 9533.96 1558.04
 9538.17    1558 9544.32 1557.95 9555.52 1557.89 9567.29  1557.8 9573.34  1557.7
  9587.2  1557.6 9640.63 1556.34 9677.89 1556.24  9680.1 1556.23 9684.49 1556.22
 9695.56  1556.2 9698.05 1556.22 9699.41 1556.23 9700.38 1556.24 9763.13 1556.23
 9765.99  1556.2 9815.91 1556.33 9822.55 1556.34 9843.43 1556.45 9850.76 1556.57
 9892.17  1556.9 9894.08 1556.92 9894.75 1556.92 9895.97 1556.92  9900.3 1556.91
 9902.58  1556.9 9904.71 1556.88 9909.36 1556.81 9910.17  1556.8 9910.59  1556.8
 9911.26  1556.8 9912.65 1556.78 9913.61 1556.76 9915.86 1556.73  9916.5 1556.73
 9921.07  1556.7 9933.18 1556.48    9934 1556.45 9934.69 1556.42 9937.16 1556.38
 9953.28  1556.3 9955.91 1556.21 9964.68 1556.07 9967.34 1556.02 9967.77    1556
 9975.82  1555.6 9978.53 1555.45 9981.46 1554.23 9981.94    1554  9982.5 1553.75
 9983.57  1553.3 9985.77  1552.3 9986.59    1552 9988.97 1551.05 9991.39    1550
 9991.89  1549.8 9992.46  1549.6 9992.63 1549.53 9997.48 1549.42   10000 1549.25
10009.11  1549.110010.45 1549.3810012.68 1549.7710013.95    155010022.21 1551.49
 10024.6    155210026.97  1552.510034.02    155410035.07 1554.29 10035.4 1554.33
10036.46  1554.310042.41    155410045.82 1553.8710046.07 1553.8510048.32 1553.91
10050.19    155410088.99 1555.4710096.89 1555.7610099.95 1555.8710101.06 1555.91
 10101.4  1555.910103.34    1556 10104.4 1556.0210115.28 1556.2110136.51 1556.55
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10177.94  1556.610206.21 1556.7410207.76 1556.7410209.64  1556.710211.61 1556.63
 10214.8  1556.610224.47 1556.4210238.33 1556.2110243.48 1556.1410252.43    1556
10254.04  1555.910256.74 1555.83 10256.9 1555.8210257.69 1555.5710262.09 1554.19
10262.69    155410263.38 1553.7910269.07    155210271.56 1551.2410271.92 1551.13
10275.12  1550.910280.21 1550.4610285.04 1551.7410285.69 1551.9210285.82 1551.95
 10285.9    155210286.01    155210286.09 1552.0210293.53    155410293.96 1554.12
10294.14  1554.210294.86 1554.3410300.94    155610302.04 1556.17 10302.3 1556.21
10308.24    155610309.68    155610312.55 1555.8910315.16 1555.82   10318 1555.75
10319.77  1555.710322.51 1555.6610328.48  1555.510338.66 1555.2710339.79 1555.37
10347.48    155610357.45 1556.7810368.23 1557.6810368.43  1557.710368.46  1557.7
 10368.5  1557.710371.97 1557.8710376.45    155810377.37 1558.0210377.49 1558.03
10381.36  1558.210383.06 1558.2210386.39 1558.36 10424.1 1559.5410425.13 1559.57
10425.87  1559.6 10440.2    156010453.36 1560.1410454.56 1560.15

Manning's n Values        num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9334.62     .06 9892.17     .06 9978.53    .045 10035.4    .05510256.74    .036
 10302.3     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9978.53 10035.4             217.35  381.23  448.24             .1      .3

CROSS SECTION OUTPUT    Profile #100yr - FP

  E.G. Elev (ft)            1558.92   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.55    Wt. n-Val.               0.060      0.045      0.045
  W.S. Elev (ft)            1558.37   Reach Len. (ft)         217.35     381.23     448.24
  Crit W.S. (ft)                      Flow Area (sq ft)       780.23     410.63     942.36
  E.G. Slope (ft/ft)       0.004741   Area (sq ft)            780.23     410.63     942.36
  Q Total (cfs)             9700.00   Flow (cfs)             1869.83    3418.79    4411.38
  Top Width (ft)             878.60   Top Width (ft)          470.56      56.87     351.17
  Vel Total (ft/s)            4.55    Avg. Vel. (ft/s)          2.40       8.33       4.68
  Max Chl Dpth (ft)           9.27    Hydr. Depth (ft)          1.66       7.22       2.68
  Conv. Total (cfs)         140880.4  Conv. (cfs)            27157.0    49653.6    64069.8
  Length Wtd. (ft)           362.60   Wetted Per. (ft)        470.62      58.60     352.86
  Min Ch El (ft)            1549.10   Shear (lb/sq ft)          0.49       2.07       0.79
  Alpha                       1.72    Stream Power (lb/ft s)    1.18      17.27       3.70
  Frctn Loss (ft)             1.74    Cum Volume (acre-ft)     56.03      58.04     104.73
  C & E Loss (ft)             0.02    Cum SA (acres)           33.14      10.64      51.97

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #100yr - FW

  E.G. Elev (ft)            1559.99   Element                Left OB    Channel   Right OB
  Vel Head (ft)               0.65    Wt. n-Val.               0.060      0.045      0.046
  W.S. Elev (ft)            1559.34   Reach Len. (ft)         217.35     381.23     448.24
  Crit W.S. (ft)                      Flow Area (sq ft)        31.23     465.80    1140.21
  E.G. Slope (ft/ft)       0.003908   Area (sq ft)             31.23     465.80    1140.21
  Q Total (cfs)             9700.00   Flow (cfs)               91.53    3829.72    5778.75
  Top Width (ft)             360.00   Top Width (ft)            8.53      56.87     294.60
  Vel Total (ft/s)            5.92    Avg. Vel. (ft/s)          2.93       8.22       5.07
  Max Chl Dpth (ft)          10.24    Hydr. Depth (ft)          3.66       8.19       3.87
  Conv. Total (cfs)         155167.9  Conv. (cfs)             1464.2    61262.9    92440.8
  Length Wtd. (ft)           381.63   Wetted Per. (ft)         11.99      58.60     300.05
  Min Ch El (ft)            1549.10   Shear (lb/sq ft)          0.64       1.94       0.93
  Alpha                       1.20    Stream Power (lb/ft s)    1.86      15.94       4.70
  Frctn Loss (ft)             1.70    Cum Volume (acre-ft)     26.02      66.17      75.67
  C & E Loss (ft)             0.04    Cum SA (acres)            8.56      10.64      25.08

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.77

INPUT
Description:
Station Elevation Data    num=     106
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
 9257.17     1558 9457.17  1555.7     9468  1555.5 9486.99 1555.32 9495.81 1555.17
  9504.6  1555.1 9514.93 1555.11 9518.77  1555.1 9522.54 1554.62  9527.8     1554
 9528.88 1553.89 9534.29 1553.23 9539.91  1553.6 9542.68     1554 9546.02 1554.26
 9548.03 1554.43 9549.32  1554.6 9551.98 1554.72 9560.28 1554.75 9570.31 1554.83
 9581.06 1554.78 9594.35 1554.72 9609.58 1554.61 9618.98 1554.65 9629.67 1554.72
 9650.43 1554.63 9664.46 1554.56 9677.14 1554.46 9702.14 1554.43 9712.59  1554.4
 9732.91  1554.7 9747.09 1554.78 9759.64 1554.77 9771.16 1554.69 9780.79  1554.6
 9794.12 1554.49 9804.13  1554.4  9815.5  1554.3 9835.15 1554.09 9843.48     1554
  9852.2 1553.92 9861.74 1553.86 9890.55 1553.66 9900.06 1553.86 9911.62  1554.1
 9912.15 1554.08 9912.84     1554 9914.24 1553.83 9917.39  1553.4 9921.37  1552.8
 9928.72 1552.63 9936.19 1552.42 9940.35  1552.3 9944.96 1552.17 9945.19  1552.1
 9945.56 1552.02 9945.72     1552 9953.69 1550.05 9953.89     1550 9954.14  1549.9
 9961.63     1548 9963.06 1547.73  9963.4 1547.68  9973.7 1546.83 9983.65     1546
 9985.12 1545.88 9986.32 1545.79 9988.82 1545.58 9989.04 1545.67 9989.91     1546
 9992.33 1546.89 9995.37     1548 9996.91 1548.5810000.42    155010002.79  1550.8
10006.33    155210008.23 1552.6910011.94    155410012.18 1554.0910013.61  1554.6
10014.28 1554.8510018.54 1554.8410066.23 1554.8810086.76 1554.8810097.53  1554.8
10130.49    155510135.02 1555.0110172.88  1554.310196.21    155410197.82  1553.9
10200.91 1553.8410201.68 1553.8110202.94  1553.710210.03 1553.4510210.94 1553.42
10212.24 1553.4710220.09 1553.8110225.74    155410231.42 1554.1410236.29 1554.28
10295.23    155610361.03 1556.8210380.84    155710387.15 1557.1310397.48 1557.55
10403.36 1557.84
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Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9257.17	.05	9570.31	.05	9911.62	.0410014.28		.0510135.02		.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9911.6210014.28		210.81	279.94 312.97	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1557.16	Element			
Vel Head (ft)	0.74	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1556.42	Reach Len. (ft)	210.81	279.94	312.97
Crit W.S. (ft)		Flow Area (sq ft)	883.25	646.44	492.17
E.G. Slope (ft/ft)	0.004862	Area (sq ft)	883.25	646.44	492.17
Q Total (cfs)	9700.00	Flow (cfs)	2701.87	5623.58	1374.55
Top Width (ft)	934.12	Top Width (ft)	516.93	102.66	314.53
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)	3.06	8.70	2.79
Max Chl Dpth (ft)	10.84	Hydr. Depth (ft)	1.71	6.30	1.56
Conv. Total (cfs)	139111.8	Conv. (cfs)	38748.7	80650.1	19713.0
Length Wtd. (ft)	265.60	Wetted Per. (ft)	517.13	105.03	314.60
Min Ch El (ft)	1545.58	Shear (lb/sq ft)	0.52	1.87	0.47
Alpha	2.07	Stream Power (lb/ft s)	1.59	16.25	1.33
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	51.88	53.42	97.35
C & E Loss (ft)	0.01	Cum SA (acres)	30.68	9.94	48.54

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1558.25	Element			
Vel Head (ft)	1.10	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1557.15	Reach Len. (ft)	210.81	279.94	312.97
Crit W.S. (ft)		Flow Area (sq ft)	560.51	721.88	110.06
E.G. Slope (ft/ft)	0.005097	Area (sq ft)	560.51	721.88	110.06
Q Total (cfs)	9700.00	Flow (cfs)	2385.26	6920.71	394.03
Top Width (ft)	345.21	Top Width (ft)	194.62	102.66	47.93
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)	4.26	9.59	3.58
Max Chl Dpth (ft)	11.57	Hydr. Depth (ft)	2.88	7.03	2.30
Conv. Total (cfs)	135869.4	Conv. (cfs)	33410.7	96939.4	5519.3
Length Wtd. (ft)	262.68	Wetted Per. (ft)	197.32	105.03	50.21
Min Ch El (ft)	1545.58	Shear (lb/sq ft)	0.90	2.19	0.70
Alpha	1.45	Stream Power (lb/ft s)	3.85	20.97	2.50
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	24.54	60.97	69.23
C & E Loss (ft)	0.04	Cum SA (acres)	8.05	9.94	23.32

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.72

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9325.95	1556	9336.12	1555.88	9407.34	1554.88	9434.88	1554.2	9460.6	1553.93
9470.2	1554.1	9481.25	1554.1	9490	1554.11	9513.1	1554	9517.84	1553.96
9526.45	1553.9	9535.25	1553.86	9544.28	1553.81	9617.55	1553.64	9635.34	1553.57
9650.94	1553.5	9664.21	1553.45	9674.85	1553.41	9683.75	1553.38	9691.46	1553.35
9700.51	1553.3	9712.81	1553.3	9721.25	1553.2	9731.03	1553.23	9742.2	1553.2
9751.44	1553.24	9760.81	1553.25	9846.78	1552.4	9914.09	1552.05	9922.46	1552
9947.62	1551.22	9961.5	1550.82	9961.73	1550.7	9962.46	1550.43	9963.76	1550
9968.43	1548.69	9970.82	1548	9975.86	1546.5	9977.77	1546	9979.96	1545.34
9980.92	1545.06	9984.17	1544.97	9989.21	1544.8	9995.9	1544.7110002.51		1544.57
10004.68	1545.2710005.68		1545.6210006.89		154610012.21		1547.7210013.12		1548
10014.51	1548.3710020.08		155010020.68		1550.210025.84		1551.1310027.38		1551.26
10028.17	1551.3210030.35		1551.410041.02		1551.7710052.02		1551.910059.79		1552
10069.61	1552.0810079.13		1552.1310113.64		1552.7610162.63		1553.810171.74		1554
10172.37	155410184.05		1554.0610194.69		1554.09 10194.9		1554.110203.92		1554.12
10218.98	1554.410315.49		1555.3410324.47		1555.310339.11		1555.310350.57		1555.44
10359.19	1555.510372.16		1555.6910379.93		1555.7810390.38		1555.9		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9325.95	.05	9922.46	.0410025.84		.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9922.4610025.84		293.43	329.52 369.98	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1555.86	Element			
Vel Head (ft)	0.79	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1555.07	Reach Len. (ft)	293.43	329.52	369.98
Crit W.S. (ft)		Flow Area (sq ft)	881.91	666.03	428.31
E.G. Slope (ft/ft)	0.004855	Area (sq ft)	881.91	666.03	428.31
Q Total (cfs)	9700.00	Flow (cfs)	2568.71	5900.23	1231.06
Top Width (ft)	893.85	Top Width (ft)	528.60	103.38	261.86
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)	2.91	8.86	2.87
Max Chl Dpth (ft)	10.50	Hydr. Depth (ft)	1.67	6.44	1.64
Conv. Total (cfs)	139216.2	Conv. (cfs)	36866.6	84681.2	17668.4

Length Wtd. (ft)	329.81	Wetted Per. (ft)	528.62	105.19	261.91
Min Ch El (ft)	1544.57	Shear (lb/sq ft)	0.51	1.92	0.50
Alpha	2.12	Stream Power (lb/ft s)	1.47	17.00	1.42
Frctn Loss (ft)	1.86	Cum Volume (acre-ft)	47.61	49.20	94.04
C & E Loss (ft)	0.03	Cum SA (acres)	28.15	9.28	46.47

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need ft additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1557.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1556.06	Reach Len. (ft)	293.43	329.52	369.98
Crit W.S. (ft)		Flow Area (sq ft)	634.56	768.43	34.92
E.G. Slope (ft/ft)	0.004066	Area (sq ft)	634.56	768.43	34.92
Q Total (cfs)	9700.00	Flow (cfs)	2712.35	6852.71	134.94
Top Width (ft)	295.25	Top Width (ft)	184.45	103.38	7.42
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)	4.27	8.92	3.86
Max Chl Dpth (ft)	11.49	Hydr. Depth (ft)	3.44	7.43	4.71
Conv. Total (cfs)	152127.8	Conv. (cfs)	42538.5	107473.0	2116.3
Length Wtd. (ft)	326.20	Wetted Per. (ft)	187.30	105.19	11.99
Min Ch El (ft)	1544.57	Shear (lb/sq ft)	0.86	1.85	0.74
Alpha	1.35	Stream Power (lb/ft s)	3.68	16.54	2.86
Frctn Loss (ft)	1.87	Cum Volume (acre-ft)	21.65	56.18	68.71
C & E Loss (ft)	0.09	Cum SA (acres)	7.13	9.28	23.12

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.65

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9296.38	1556	9328.59	1555.62	9354.05	1555.19	9382	1554.79	9403.83	1554.3
9423.66	1554	9437.47	1553.54	9450.66	1553.08	9565.97	1552.1	9586.66	1552.05
9597.46	1552	9625.98	1551.84	9644.23	1551.7	9653.33	1551.65	9681.4	1551.68
9687.28	1551.7	9696.82	1551.7	9738.78	1551.68	9752.03	1551.61	9760.06	1551.58
9767.95	1551.5	9782.93	1551.48	9789.44	1551.45	9798.97	1551.4	9809.77	1551.4
9819.47	1551.41	9826.53	1551.44	9836.41	1551.59	9841.87	1551.61	9943.26	1550.54
9945.1	1550.51	9947.06	1550.33	9950.49	1550	9951.03	1549.95	9951.28	1549.93
9951.85	1549.88	9954.53	1549.63	9955.32	1549.4	9961.08	1548	9964.1	1547.32
9969.44	1546	9972.1	1545.3	9976.78	1544	9979.73	1543.24	9980.67	1542.99
9991.85	1543.17	10003.19	1543.32	10003.33	1543.31	10004.25	1543.62	10005.57	1544
10008.75	1545.11	10011.58	1546	10016.92	1547.91	10017.13	1548	10017.55	1548.15
10023.27	1550	10024.1	1550.35	10024.24	1550.41	10040.84	1550.34	10063.98	1550.37
10076.59	1550.41	10098.09	1550.58	10117.89	1550.71	10137.87	1550.78	10158.85	1550.62
10185.48	1550.41	10191.89	1550.35	10223.34	1550.22	10245.05	1550.54	10260.4	1550.9
10269.76	1551.11	10314.77	1552	10333.57	1552.42	10354.57	1552.81	10370.47	1553.17
10392.43	1553.04	10398.61	1552.94	10408.5	1552.97	10422.31	1552.99	10431.36	1552.98
10441.83	1553	10471.78	1553.34	10481.88	1553.46	10492.39	1553.6	10503.1	1553.7
10508.62	1553.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9296.38	.05	9943.26	.041	0024.24	.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9943.26	10024.24	501.27	499.86	500.22	.1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1553.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1552.86	Reach Len. (ft)	501.27	499.86	500.22
Crit W.S. (ft)	1552.86	Flow Area (sq ft)	540.41	546.64	654.49
E.G. Slope (ft/ft)	0.006583	Area (sq ft)	540.41	546.64	654.49
Q Total (cfs)	9700.00	Flow (cfs)	1435.74	5786.97	2477.29
Top Width (ft)	880.92	Top Width (ft)	467.22	80.98	332.72
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	2.66	10.59	3.79
Max Chl Dpth (ft)	9.87	Hydr. Depth (ft)	1.16	6.75	1.97
Conv. Total (cfs)	119556.4	Conv. (cfs)	17696.1	71326.7	30533.6
Length Wtd. (ft)	500.24	Wetted Per. (ft)	467.23	83.04	332.75
Min Ch El (ft)	1542.99	Shear (lb/sq ft)	0.48	2.71	0.81
Alpha	2.31	Stream Power (lb/ft s)	1.26	28.64	3.06
Frctn Loss (ft)	2.86	Cum Volume (acre-ft)	42.82	44.61	89.44
C & E Loss (ft)	0.14	Cum SA (acres)	24.79	8.58	43.95

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates

that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1555.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1553.17	Reach Len. (ft)	501.27	499.86	500.22
Crit W.S. (ft)		Flow Area (sq ft)	223.02	571.00	299.69
E.G. Slope (ft/ft)	0.008667	Area (sq ft)	223.02	571.00	299.69
Q Total (cfs)	9700.00	Flow (cfs)	987.98	7140.64	1571.38
Top Width (ft)	301.93	Top Width (ft)	108.47	80.98	112.48
Vel Total (ft/s)	8.87	Avg. Vel. (ft/s)	4.43	12.51	5.24
Max Chl Dpth (ft)	10.18	Hydr. Depth (ft)	2.06	7.05	2.66
Conv. Total (cfs)	104193.7	Conv. (cfs)	10612.5	76702.0	16879.2
Length Wtd. (ft)	500.14	Wetted Per. (ft)	110.08	83.04	114.87
Min Ch El (ft)	1542.99	Shear (lb/sq ft)	1.10	3.72	1.41
Alpha	1.55	Stream Power (lb/ft s)	4.86	46.53	7.40
Frctn Loss (ft)	2.95	Cum Volume (acre-ft)	18.76	51.12	67.29
C & E Loss (ft)	0.33	Cum SA (acres)	6.15	8.58	22.61

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.56

INPUT
Description:
Station Elevation Data num= 195

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9560.1	1552	9586.36	1551.3	9611.39	1550.66	9637.29	1550	9683.16	1548.82
9716.76	1548	9723.08	1547.87	9729.11	1547.78	9730.55	1547.75	9732.8	1547.72
9743.77	1547.8	9746.14	1547.77	9753.92	1547.79	9762.09	1547.81	9768.18	1547.78
9770.81	1547.8	9777.89	1547.79	9777.9	1547.79	9782.32	1547.86	9784.86	1547.86
9786.69	1547.9	9788.12	1547.88	9789.83	1547.91	9798.42	1547.96	9799.62	1547.96
9800.92	1548	9808.02	1548	9808.96	1548	9812.98	1548.01	9816.19	1548.02
9818.6	1548	9823.38	1548.06	9824.86	1548.07	9830.32	1548.07	9840.5	1548.06
9864.18	1548	9864.86	1548	9865.3	1547.99	9869.55	1547.95	9885.75	1547.86
9886.51	1547.8	9888.82	1547.78	9893.18	1547.65	9898.54	1547.52	9906.27	1547.2
9912.68	1546.9	9914.56	1546.89	9914.63	1546.89	9914.69	1546.89	9916.65	1546.94
9922.32	1547.1	9927.55	1547.29	9936.95	1547.45	9941.47	1547.41	9941.89	1547.41
9942.9	1547.4	9944.11	1547.42	9946.36	1547.42	9950.78	1547.44	9951.72	1547.45
9953.7	1547.4	9960.45	1547.9	9968.04	1548.41	9968.65	1548.2	9974.92	1546
9977.99	1544.9	9980.7	1544	9985.25	1542.49	9985.99	1542.2	9989.19	1542.08
9990.92	1542	9991.48	1541.99	9995.66	1542	10000	1541.9810011.14		1541.98
10012.42	154210014.13		154210015.75		1542	10016.7	1542.0110020.97		1542.06
10022.85	1542.710026.47		1544	10029.7	1545.1410032.23		154610034.48		1546.86
10037.68	154810039.01		1547.8810041.16		1547.6910042.34		1547.5410043.34		1547.44
10044.09	1547.410044.72		1547.2810045.32		1547.2110045.88		1547.2610046.17		1547.29
10046.42	1547.310086.31		1547.8910087.21		1547.9110096.81		154810098.27		1548.05
10098.68	154810107.55		154810154.66		1547.110164.21		1546.91	10203.9	1546.62
10204.79	1546.610205.72		1546.55	10206.4	1546.5310207.68		1546.5710209.11		1546.61
10210.88	1546.710213.91		1546.71	10219.3	1546.7910225.73		1546.8210235.17		1546.93
10235.85	1546.910248.14		1547.6510253.86		1547.9110254.43		1547.9410256.26		1548
10257.89	154810260.47		1548.0710262.19		1548.110269.98		1548.1910273.64		1548.26
10276.65	1548.310283.82		1548.4610291.15		1548.5910291.47		1548.61	10292.4	1548.61
10298.67	1548.810300.52		1548.8210300.81		1548.8310301.25		1548.8310301.62		1548.83
10304.27	1548.8	10307	1548.7710309.85		1548.7510311.47		1548.7710314.25		1548.76
10316.68	1548.710319.01		1548.71	10320.2	1548.7210321.35		1548.7210322.43		1548.72
10325.24	1548.710326.56		1548.6910330.45		1548.6810331.66		1548.6310336.95		1548.61
10338.3	1548.610339.66		1548.5710342.14		1548.6310349.68		1548.5910350.99		1548.6
10375.82	1548.710382.22		1548.6410384.72		1548.6410389.72		1548.6310393.15		1548.66
10396.85	1548.710405.26		1548.6810406.49		1548.47	10409.3	1548.4410411.93		1548.44
10414.92	1548.5	10419.1	1548.5510426.06		1548.6910434.76		1548.7410436.79		1548.78
10449.77	1548.910450.42		1548.8910452.76		1548.9210472.08		1548.910472.94		1548.89
10473.4	1548.910474.91		1548.86	10476.3	1548.8710478.18		1548.8310480.93		1548.81
10484.69	1548.810491.75		1548.7810494.47		1548.8810496.17		1548.9510497.95		1548.98
10501.85	154910504.83		1548.9810509.58		1549.1810512.99		1549.2810514.78		1549.32
10517.37	1549.510524.96		1549.6510534.51		155010549.85		1550.710577.96		1551.89

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9560.1	.05	9869.55	.05	9968.04	.0410037.68		.0510283.82		.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9968.0410037.68		407.49 424.91	417.75	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1550.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1550.07	Reach Len. (ft)	407.49	424.91	417.75
Crit W.S. (ft)		Flow Area (sq ft)	664.70	452.04	965.88
E.G. Slope (ft/ft)	0.005011	Area (sq ft)	664.70	452.04	965.88
Q Total (cfs)	9700.00	Flow (cfs)	2253.98	4056.07	3389.95
Top Width (ft)	901.21	Top Width (ft)	333.31	69.64	498.26
Vel Total (ft/s)	4.66	Avg. Vel. (ft/s)	3.39	8.97	3.51
Max Chl Dpth (ft)	8.09	Hydr. Depth (ft)	1.99	6.49	1.94
Conv. Total (cfs)	137030.9	Conv. (cfs)	31841.7	57299.6	47889.5
Length Wtd. (ft)	418.97	Wetted Per. (ft)	333.40	71.72	498.43
Min Ch El (ft)	1541.98	Shear (lb/sq ft)	0.62	1.97	0.61
Alpha	1.87	Stream Power (lb/ft s)	2.11	17.69	2.13

Frctn Loss (ft)	2.72	Cum Volume (acre-ft)	35.88	38.88	80.14
C & E Loss (ft)	0.03	Cum SA (acres)	20.19	7.71	39.18

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1551.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.78	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1550.99	Reach Len. (ft)	407.49	424.91	417.75
Crit W.S. (ft)		Flow Area (sq ft)	362.55	516.37	748.19
E.G. Slope (ft/ft)	0.004277	Area (sq ft)	362.55	516.37	748.19
Q Total (cfs)	9700.00	Flow (cfs)	1588.58	4677.91	3433.51
Top Width (ft)	377.30	Top Width (ft)	105.36	69.64	202.30
Vel Total (ft/s)	5.96	Avg. Vel. (ft/s)	4.38	9.06	4.59
Max Chl Dpth (ft)	9.01	Hydr. Depth (ft)	3.44	7.41	3.70
Conv. Total (cfs)	148315.3	Conv. (cfs)	24289.8	71526.4	52499.2
Length Wtd. (ft)	420.63	Wetted Per. (ft)	108.41	71.72	206.22
Min Ch El (ft)	1541.98	Shear (lb/sq ft)	0.89	1.92	0.97
Alpha	1.41	Stream Power (lb/ft s)	3.91	17.42	4.45
Frctn Loss (ft)	2.48	Cum Volume (acre-ft)	15.39	44.88	61.28
C & E Loss (ft)	0.05	Cum SA (acres)	4.92	7.71	20.80

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.48

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9713.54	1548.2	9724.42	1548	9791.21	1546.5	9809.79	1546.08	9814.36	1545.98
9825.84	1545.96	9826.04	1545.95	9833.31	1545.65	9836.95	1545.2	9845.75	1544.35
9850.75	1543.8	9850.95	1543.7	9852.22	1544	9855.43	1544.38	9859.23	1544.9
9863.84	1545.59	9873.98	1545.36	9877.79	1545.27	9913.56	1544.5	9922.12	1544.83
9945.21	1545.14	9957.24	1545.3	9969.57	1545.48	9970.88	1545.5	9974.75	1544.14
9980.74	1542	9986.17	1540	9986.88	1539.74	9987.99	1539.46	9993.39	1539.45
10016.72	1539.43	10017.58	1539.67	10024.57	1541.61	10026.04	154210	10034.03	1544.23
10045.11	1546.04	10061.71	154610	10064.14	1545.99	10077.21	1545.98	10088.39	1545.98
10102.13	154610	104.88	154610	120.91	1546.02	10131.25	154610	139.09	1546.04
10168.24	1546.03	10176.53	1546.02	10193.29	154610	201.86	1546	10255.7	1545.19
10266.73	1545.03	10278.24	1544.81	10294.68	1544.67	10324.84	1544.14	10337.8	1544.11
10355.65	1544.05	10382.28	1543.84	10395.44	1543.96	10396.77	154410	419.79	1544.07
10433.64	1544.11	10453.27	1544.56	10477.01	1544.76	10501.39	1545.16	10515.29	1545.36
10550.48	154610	574.72	1546.59	10604.92	1547.01	10619.78	1547.21	10630.01	1547.43
10637.54	1547.41	10654.84	1547.69	10680.87	154810	694.05	1548.21	10713.07	1548.3
10736.9	1549.21	10754.08	1549.41	10773.65	1549.71	10773.97	1549.7		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9713.54	.05	9863.84	.05	9970.88	.04	10045.11	.05	10201.86	.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9970.88	10045.11	515.83	509.1 474.96	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1547.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1547.02	Reach Len. (ft)	515.83	509.10	474.96
Crit W.S. (ft)		Flow Area (sq ft)	326.48	406.88	979.45
E.G. Slope (ft/ft)	0.008731	Area (sq ft)	326.48	406.88	979.45
Q Total (cfs)	9700.00	Flow (cfs)	1280.67	4319.42	4099.91
Top Width (ft)	837.91	Top Width (ft)	202.94	74.23	560.74
Vel Total (ft/s)	5.66	Avg. Vel. (ft/s)	3.92	10.62	4.19
Max Chl Dpth (ft)	7.59	Hydr. Depth (ft)	1.61	5.48	1.75
Conv. Total (cfs)	103810.5	Conv. (cfs)	13705.9	46226.9	43877.7
Length Wtd. (ft)	490.48	Wetted Per. (ft)	203.25	76.07	560.79
Min Ch El (ft)	1539.43	Shear (lb/sq ft)	0.88	2.92	0.95
Alpha	1.86	Stream Power (lb/ft s)	3.43	30.95	3.99
Frctn Loss (ft)	3.40	Cum Volume (acre-ft)	31.25	34.69	70.81
C & E Loss (ft)	0.14	Cum SA (acres)	17.68	7.01	34.10

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1549.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.		0.040	0.050
W.S. Elev (ft)	1547.91	Reach Len. (ft)	515.83	509.10	474.96
Crit W.S. (ft)		Flow Area (sq ft)		473.05	820.66
E.G. Slope (ft/ft)	0.008641	Area (sq ft)		473.05	820.66
Q Total (cfs)	9700.00	Flow (cfs)		5410.19	4289.81
Top Width (ft)	399.12	Top Width (ft)		74.23	324.89

Vel Total (ft/s)	7.50	Avg. Vel. (ft/s)		11.44	5.23
Max Chl Dpth (ft)	8.48	Hydr. Depth (ft)		6.37	2.53
Conv. Total (cfs)	104348.2	Conv. (cfs)		58200.4	46147.8
Length Wtd. (ft)	491.11	Wetted Per. (ft)		78.48	328.88
Min Ch El (ft)	1539.43	Shear (lb/sq ft)		3.25	1.35
Alpha	1.51	Stream Power (lb/ft s)		37.19	7.04
Frctn Loss (ft)	3.48	Cum Volume (acre-ft)	13.70	40.05	53.75
C & E Loss (ft)	0.18	Cum SA (acres)	4.42	7.01	18.28

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.38

INPUT
Description:
Station Elevation Data num= 325

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9629.76	1549.9	9634.63	1549.63	9641.45	1549.27	9642.73	1549.11	9642.77	1549.1
9642.8	1549.1	9642.83	1549.08	9642.88	1549.07	9643	1549.05	9643.11	1549.03
9643.22	1549	9643.34	1548.99	9643.48	1548.97	9643.64	1548.96	9643.82	1548.94
9644.05	1548.9	9644.29	1548.89	9644.56	1548.85	9645.36	1548.73	9646.29	1548.64
9649.94	1548	9650.11	1547.99	9650.33	1547.96	9650.73	1547.87	9651.41	1547.76
9656.35	1547.6	9658.02	1547.56	9663.09	1547.45	9667.59	1547.35	9671.82	1547.24
9677.8	1547.1	9680.28	1547.03	9684.94	1546.84	9690.96	1546.7	9709.2	1546.25
9710.85	1546.1	9711.85	1546.13	9713.26	1546.05	9715.68	1546.12	9748.15	1546.42
9748.87	1546.4	9749.89	1546.39	9751.85	1546.41	9754.1	1546.43	9755.92	1546.44
9757.59	1546.4	9760.61	1546.5	9762.42	1546.53	9763.89	1546.56	9767.72	1546.53
9770.18	1546.6	9773.03	1546.62	9778.45	1546.71	9780.68	1546.68	9788.86	1546.64
9795.96	1546.7	9796.69	1546.66	9797.46	1546.49	9798.02	1546.35	9798.4	1546.24
9798.72	1546.2	9798.99	1546.16	9799.18	1546.14	9799.37	1546.09	9799.57	1546
9801.9	1545.6	9802.55	1545.49	9807.89	1545.26	9810.35	1545.21	9814.5	1545.07
9818.48	1544.9	9822.83	1544.72	9822.97	1544.71	9823.32	1544.69	9826.26	1544.95
9829.44	1545.3	9831.94	1545.54	9833.19	1545.68	9836.34	1545.96	9836.64	1545.94
9838.86	1545.8	9839.44	1545.74	9841.65	1545.48	9842.62	1545.48	9844.96	1545.37
9846.54	1545.4	9847.17	1545.38	9847.7	1545.39	9848.81	1545.32	9849.76	1545.32
9852.03	1545.3	9852.57	1545.26	9854.21	1545.24	9856.05	1545.21	9856.66	1545.21
9858.41	1545.2	9858.87	1545.15	9859.2	1545.15	9861.77	1545	9862.14	1545
9863.9	1545	9864.17	1544.96	9866.61	1544.93	9866.85	1544.93	9869.64	1544.9
9869.79	1544.9	9872.02	1544.77	9872.13	1544.77	9874.48	1544.69	9874.58	1544.69
9876.93	1544.7	9877.12	1544.65	9878.99	1544.59	9880.85	1544.57	9880.98	1544.56
9882.98	1544.5	9883.88	1544.48	9887.09	1544.5	9889.49	1544.54	9892.45	1544.55
9894.94	1544.6	9896.62	1544.5	9898.05	1544.47	9899.51	1544.51	9901.17	1544.58
9903.09	1544.6	9903.29	1544.57	9903.34	1544.57	9903.64	1544.56	9907.27	1544.47
9919.81	1544	9923.46	1543.89	9927.17	1543.85	9928.07	1543.84	9928.9	1543.84
9929.41	1543.8	9930.35	1543.82	9934.01	1543.75	9940.03	1543.6	9951.82	1543.31
9980.15	1542.6	9980.18	1542.61	9981.7	1542	9983.84	1540.92	9984.47	1540.58
9984.58	1540.5	9984.67	1540.39	9985.56	1540	9987.88	1538.9	9989.92	1538
9991.29	1537.3	9992.49	1536.67	10000	153710006.31		1537.16	10022.5	1537.64
10022.62	1537.710023.38		1537.8110024.51		153810034.01		1539.9210034.38		1540
10034.72	1540.110036.75		1540.57	10043.7	1542	10044	1542.0810044.26		1542.14
10044.55	1542.110045.86		1542.1510048.96		1542.04	10049.4	1542.0510049.73		1542.05
10049.91	1542	10050.2	1542.0610052.38		154210084.04		1542.1710198.92		1542.45
10199.99	1542.410203.43		1542.4510209.48		1542.4610214.86		1542.4710219.78		1542.48
10228.22	1542.510236.11		1542.510238.47		1542.510240.86		1542.5	10243	1542.5
10244.83	1542.510246.28		1542.5210247.69		1542.5310249.11		1542.54	10252.6	1542.54
10253.65	1542.510258.11		1542.5410260.09		1542.53	10261.4	1542.5210262.03		1542.51
10264.77	1542.510268.24		1542.4810269.89		1542.4710277.62		1542.4410284.56		1542.41
10290.28	1542.410294.29		1542.3510300.34		1542.3110309.18		1542.2510322.18		1542.17
10339.91	1542.110355.66		154210357.41		154210364.27		1541.9910370.28		1541.99
10376.01	154210381.94		1541.9910386.99		154210389.55		154210391.69		1542.01
10402.51	1542.1	10410.8	1542.110420.47		1542.1410429.02		1542.1710436.86		1542.18
10444.28	1542.210450.01		1542.1910454.25		1542.1810465.52		1542.1110474.14		1542.07
10487.48	154210490.36		154210506.07		1541.9210506.45		1541.9110538.18		1541.75
10538.66	1541.810540.21		1541.7510541.14		1541.7510542.15		1541.7510543.29		1541.74
10544.57	1541.710545.91		1541.710547.37		1541.6710548.78		1541.6610569.24		1541.55
10570.68	1541.510572.61		1541.4910577.97		1541.410582.11		1541.3310606.11		1541.17
10609.62	1541.110613.61		1540.9910618.59		1540.9110622.38		1540.8710627.38		1540.8
10633.72	1540.710634.47		1540.6810639.31		1540.57	10697.4	1540.6310718.38		1540.65
10724.85	1540.710725.36		1540.6610737.31		1540.8110742.24		1540.8710745.76		1540.9
10749.92	154110753.06		1541.0510756.39		1541.1210759.89		1541.1810766.99		1541.22
10772.99	1541.3	10777.5	1541.2910788.28		1541.4110797.55		1541.5	10806.8	1541.61
10824.31	1541.810840.61		154210845.77		1542.1210847.62		1542.1510856.53		1542.33
10860.08	1542.410863.82		1542.4410867.34		1542.4910872.74		1542.5910875.42		1542.62
10877.46	1542.710879.75		1542.710884.63		1542.6710885.83		1542.6910889.37		1542.7
10889.47	1542.710889.51		1542.710889.52		1542.710889.54		1542.710889.59		1542.7
10889.61	1542.7	10890.2	1542.710894.31		1542.8510894.96		1542.8810898.42		1543
10900.6	1543.110902.14		1543.1510903.52		1543.210904.79		1543.2110905.59		1543.2
10906.68	1543.16	10907.9	1543.1410909.35		1543.1210910.31		1543.0910911.27		1543.1
10912.22	1543.0210913.36		1542.97	10914.4	1542.9310918.44		1542.74	10920.5	1542.7
10921.1	1542.6210922.21		1542.5310924.48		1542.4510928.68		1542.4810930.51		1542.5
10933.67	1542.610942.06		1542.7910957.74		1543.1110958.89		1543.1610965.68		1543.5
10968.32	1543.610977.85		154410986.21		1544.2711001.96		1544.7711033.86		1545.9

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9629.76	.05	9980.15	.04	10044	.0510444.28		.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9980.15	10044	300.39	262.91	127.93	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1544.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1543.96	Reach Len. (ft)	300.39	262.91	127.93
Crit W.S. (ft)	1543.61	Flow Area (sq ft)	37.33	344.66	1883.18
E.G. Slope (ft/ft)	0.005587	Area (sq ft)	37.33	344.66	1883.18
Q Total (cfs)	9700.00	Flow (cfs)	61.20	2888.85	6749.95
Top Width (ft)	1055.49	Top Width (ft)	58.85	63.85	932.78
Vel Total (ft/s)	4.28	Avg. Vel. (ft/s)	1.64	8.38	3.58
Max Chl Dpth (ft)	7.29	Hydr. Depth (ft)	0.63	5.40	2.02
Conv. Total (cfs)	129777.6	Conv. (cfs)	818.8	38650.4	90308.4
Length Wtd. (ft)	179.47	Wetted Per. (ft)	58.87	65.71	932.91
Min Ch El (ft)	1536.67	Shear (lb/sq ft)	0.22	1.83	0.70
Alpha	1.63	Stream Power (lb/ft s)	0.36	15.33	2.52
Frctn Loss (ft)	1.07	Cum Volume (acre-ft)	29.09	30.30	55.21
C & E Loss (ft)	0.01	Cum SA (acres)	16.13	6.21	25.96

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1545.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.		0.040	0.050
W.S. Elev (ft)	1544.87	Reach Len. (ft)	300.39	262.91	127.93
Crit W.S. (ft)		Flow Area (sq ft)		402.84	1354.03
E.G. Slope (ft/ft)	0.005900	Area (sq ft)		402.84	1354.03
Q Total (cfs)	9700.00	Flow (cfs)		3764.27	5935.73
Top Width (ft)	569.85	Top Width (ft)		63.85	506.00
Vel Total (ft/s)	5.52	Avg. Vel. (ft/s)		9.34	4.38
Max Chl Dpth (ft)	8.20	Hydr. Depth (ft)		6.31	2.68
Conv. Total (cfs)	126280.5	Conv. (cfs)		49005.5	77275.0
Length Wtd. (ft)	186.95	Wetted Per. (ft)		67.98	509.25
Min Ch El (ft)	1536.67	Shear (lb/sq ft)		2.18	0.98
Alpha	1.50	Stream Power (lb/ft s)		20.40	4.29
Frctn Loss (ft)	1.17	Cum Volume (acre-ft)	13.70	34.93	41.90
C & E Loss (ft)	0.01	Cum SA (acres)	4.42	6.21	13.75

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.33

INPUT
Description:
Station Elevation Data num= 298

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9563.16	1547.5	9567.65	1547.44	9569.24	1547.42	9574.59	1547.33	9581.57	1547.2
9583.31	1547.2	9584.14	1547.2	9584.9	1547.18	9585.81	1547.16	9586.19	1547.16
9586.48	1547.2	9586.72	1547.14	9591.49	1547.08	9598.54	1547.24	9601.96	1547.22
9604.83	1547.2	9606.9	1547.19	9609.55	1547.15	9610.47	1547.19	9612.31	1547.14
9613.4	1547.1	9614.75	1547.12	9616.61	1547	9617.92	1546.99	9618.55	1546.98
9620.12	1546.7	9621.45	1546.7	9623.21	1546.68	9624.38	1546.63	9626.5	1546.55
9627.22	1546.6	9627.96	1546.55	9628.74	1546.57	9630.65	1546.57	9632.8	1546.35
9637.22	1546.2	9638.12	1546.16	9638.37	1546.16	9646.73	1546.09	9647.94	1546.13
9648.77	1546.2	9650.32	1546.18	9650.77	1546.15	9652.85	1546.06	9653.67	1546.02
9654.53	1546	9658.38	1546	9662.23	1545.96	9663.5	1545.9	9665.08	1545.89
9675.12	1545.6	9675.35	1545.62	9677.3	1545.6	9677.74	1545.6	9679.57	1545.62
9681.42	1545.6	9681.7	1545.64	9681.94	1545.64	9683.98	1545.59	9684.21	1545.58
9684.46	1545.6	9687.12	1545.57	9687.36	1545.57	9690.31	1545.59	9690.74	1545.57
9695.21	1545.6	9695.8	1545.56	9697.52	1545.57	9697.8	1545.57	9699.29	1545.56
9699.56	1545.6	9699.83	1545.58	9705.54	1545.51	9705.82	1545.5	9707.49	1545.46
9707.92	1545.4	9710.92	1545.35	9717.11	1545.22	9718.72	1545.18	9726.82	1545.08
9730.6	1545.1	9732.55	1545.01	9732.59	1545.01	9732.76	1545.01	9733.23	1545.02
9739.26	1544.9	9743.8	1544.72	9752.6	1544.41	9755.49	1544.3	9756.94	1544.26
9758.52	1544.2	9764.39	1544	9805.36	1542.68	9820.05	1542.21	9822.84	1542.13
9824.36	1542.1	9825.58	1542.05	9826.88	1542.03	9826.94	1542.03	9827	1542.03
9827.05	1542	9827.11	1542.03	9827.22	1542.03	9827.29	1542.03	9827.37	1542.03
9827.55	1542	9827.67	1542.03	9827.82	1542.04	9828.02	1542.04	9828.25	1542.04
9828.73	1542	9829.31	1542.03	9831.11	1542.05	9837.33	1542.1	9850.61	1542.21
9850.96	1542.1	9851.67	1542	9853.66	1541.65	9855.38	1541.3	9857.73	1540.7
9859.42	1540.3	9863.98	1540.27	9868.94	1540.25	9879.4	1540.23	9883.81	1540.89
9890.03	1542	9890.89	1542.12	9891.2	1542.17	9891.47	1542.22	9892.13	1542.21
9903.61	1542	9906.93	1541.94	9907.09	1541.93	9907.28	1541.93	9910.85	1541.87
9914.57	1541.8	9914.91	1541.83	9915.26	1541.82	9915.73	1541.81	9916.64	1541.78
9918.71	1541.7	9920.22	1541.64	9922.04	1541.58	9924.49	1541.5	9928.44	1541.36
9934	1541.2	9936.84	1541.05	9937.15	1541.06	9937.25	1541.06	9946.16	1541.17
9951.97	1541.3	9960.52	1541.37	9965.41	1541.44	9975.45	1541.56	9977.43	1541.59
9978.69	1541.2	9981.25	1540.43	9982.7	1540	9985.25	1539.23	9988.58	1538.24
9989.22	1538	9989.96	1537.77	9990.94	1537.47	9993.18	1536.78	10000	1536.77
10037.31	1536.810038.75		1536.7610041.27		1537.1810043.35		1537.5210046.25		1538
10054.39	1539.410058.03		154010061.39		1540.5710067.24		1541.6110067.29		1541.61
10104.25	1540.910122.78		1540.910218.03		1541.0810221.32		1541.0610222.52		1541.06
10224.29	154110226.67		1541.0210228.36		1540.9910229.63		1540.9910230.74		1540.99
10231.88	154110233.23		1541.0110234.79		1541.0210238.12		1541.0410241.87		1541.06
10243.13	1541.110244.39		1541.0710245.71		1541.08 10247.2		1541.1	10249	1541.12
10250.92	1541.110252.89		1541.1710253.78		1541.210256.16		1541.1910260.72		1541.17
10262.14	1541.110267.08		1541.1910268.51		1541.1710273.27		1541.0710274.21		1541.03
10275.28	1541 10276.2		1540.98 10278.6		154110279.75		1541.0110282.54		1541.06
10308.84	1541.910312.55		1541.9210314.02		1541.9210314.77		1541.9210314.86		1541.91
10315.97	1541.910317.78		1541.9110320.01		1541.910321.27		1541.910321.83		1541.9

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10321.85  1541.9   10322  1541.910322.26  1541.910322.61 1541.8910323.17 1541.89
10323.91  1541.910324.81 1541.8910325.61 1541.8910326.37 1541.8910327.17 1541.89
10327.85  1541.9 10328.4 1541.8910329.59 1541.8910330.83  1541.9 10332.7  1541.9
10334.76  1541.910336.94  1541.910339.12  1541.910343.01 1541.8810432.99 1540.93
 10436.4  1540.910443.36 1540.92 10446.5 1540.9110450.45 1540.9310600.71 1540.11
10606.13  1540.2 10611.1 1540.2210616.22 1540.2210616.42 1540.2210616.57 1540.22
 10616.7  1540.210616.81 1540.2210617.65 1540.2210617.66 1540.2210617.68 1540.22
10617.69  1540.2 10617.7 1540.2210617.71 1540.2210617.99 1540.2310630.73 1540.26
10719.53  1540.5   10734 1540.6910872.22 1541.5710873.77 1541.5710875.92 1541.56
10876.12  1541.610878.73 1541.5710881.19 1541.5610883.78 1541.5310884.56 1541.59
10893.55    154210900.12  1542.210904.66 1542.3710916.83 1542.7710919.74 1542.83
10928.95  1543.110934.94 1543.3110952.49 1543.7710953.15 1543.7510967.03    1544
10969.57  1544.1 10969.7 1544.0610969.87 1544.0710970.09 1544.0810970.34 1544.09
10971.09  1544.110972.42 1544.1510973.67  1544.210975.98 1544.28 10979.6 1544.41
10992.09  1544.811003.84 1545.2311006.41 1545.2911012.07 1545.5111014.97  1545.6
11016.97  1545.7 11017.8 1545.7311023.88    1546

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9563.16     .05 9906.93     .05 9977.43     .0410067.24     .0510308.84     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9977.4310067.24            216.19  224.01  142.68             .1      .3
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CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1543.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1542.81	Reach Len. (ft)	216.19	224.01	142.68
Crit W.S. (ft)		Flow Area (sq ft)	218.94	435.41	1539.00
E.G. Slope (ft/ft)	0.006385	Area (sq ft)	218.94	435.41	1539.00
Q Total (cfs)	9700.00	Flow (cfs)	602.93	3671.28	5425.79
Top Width (ft)	1117.35	Top Width (ft)	176.07	89.81	851.47
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)	2.75	8.43	3.53
Max Chl Dpth (ft)	6.05	Hydr. Depth (ft)	1.24	4.85	1.81
Conv. Total (cfs)	121396.5	Conv. (cfs)	7545.7	45946.4	67904.4
Length Wtd. (ft)	184.10	Wetted Per. (ft)	176.50	90.94	851.58
Min Ch El (ft)	1536.76	Shear (lb/sq ft)	0.49	1.91	0.72
Alpha	1.76	Stream Power (lb/ft s)	1.36	16.09	2.54
Frctn Loss (ft)	1.25	Cum Volume (acre-ft)	28.21	27.95	50.18
C & E Loss (ft)	0.00	Cum SA (acres)	15.32	5.74	23.34

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1544.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.040	0.050
W.S. Elev (ft)	1543.59	Reach Len. (ft)	216.19	224.01	142.68
Crit W.S. (ft)		Flow Area (sq ft)		505.91	1141.96
E.G. Slope (ft/ft)	0.006576	Area (sq ft)		505.91	1141.96
Q Total (cfs)	9700.00	Flow (cfs)		4715.83	4984.17
Top Width (ft)	555.43	Top Width (ft)		89.81	465.62
Vel Total (ft/s)	5.89	Avg. Vel. (ft/s)		9.32	4.36
Max Chl Dpth (ft)	6.83	Hydr. Depth (ft)		5.63	2.45
Conv. Total (cfs)	119615.4	Conv. (cfs)		58153.2	61462.2
Length Wtd. (ft)	183.50	Wetted Per. (ft)		92.94	468.77
Min Ch El (ft)	1536.76	Shear (lb/sq ft)		2.23	1.00
Alpha	1.50	Stream Power (lb/ft s)		20.83	4.37
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	13.70	32.19	38.23
C & E Loss (ft)	0.03	Cum SA (acres)	4.42	5.74	12.32

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

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CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.29

INPUT
Description:
Station Elevation Data    num=     142
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9418.65    1547 9430.99 1546.38  9448.3 1545.08 9452.25 1544.79  9465.4 1544.71
 9473.03  1544.8 9485.79 1544.61 9515.73 1544.17 9526.85    1544 9544.82 1543.75
 9559.88 1543.57    9583 1543.27 9584.36 1543.21 9592.05 1543.09 9612.41 1542.91
 9621.08 1543.15 9628.88 1543.34 9636.09  1541.7 9636.15  1541.7 9637.78    1542
 9645.76 1543.15 9649.06 1543.64 9666.56 1542.99  9693.5    1542 9708.28 1541.46
 9747.36    1540 9767.97 1539.59 9776.89 1539.52 9778.73    1539 9784.52 1537.44
 9793.19 1537.66 9804.94 1537.92 9805.66 1537.99  9805.8    1538 9807.47 1538.16
 9818.77 1539.19 9826.94 1539.27 9842.46 1539.36 9847.79  1539.4  9855.9 1538.94
  9884.1 1539.52 9909.12    1540 9942.77 1540.54 9942.92  1540.5 9943.12  1540.5
 9943.13  1540.5 9943.41  1540.5 9944.91 1540.53 9945.87  1540.5 9946.42  1540.5
 9950.45 1540.41 9965.59 1540.08 9968.95    1540 9969.44    1539 9969.63    1539
 9969.83    1539 9975.05 1538.89 9979.45    1538 9982.49  1537.4 9986.16 1536.63
  9989.2    1536 9991.29  1535.6 9992.19 1535.44 9993.57  1535.1 9997.15 1534.44
 9997.41 1534.39 9998.22 1534.4610017.25    153610017.31    153610017.45 1536.02
10018.78 1536.0210019.78 1536.0210021.01 1536.02 10030.7  1536.110034.98  1536.1
10036.77 1536.1510039.56 1536.2110041.45 1536.49 10047.4  1537.310048.15 1537.41
10051.68    1538   10057 1538.79 10062.1 1539.6710062.23  1539.710062.57 1539.68
10063.45 1539.6610088.75    153910101.97  1539.310110.31  1539.510120.56    1540
10135.75 1540.0910148.38  1540.110165.59 1540.2610187.15  1540.310206.52  1540.3
10219.43  1540.210229.71 1540.1210245.95    154010266.63  1539.410275.59  1539.2
```

```
10282.93  1539.510294.62 1539.96 10299.4    154010312.75 1540.2610344.59    1540
10364.44 1539.8210369.43 1539.7610379.33 1539.5410388.91 1539.5210399.62 1539.53
10410.91  1539.610419.73 1539.7810436.73 1539.91 10447.6    154010506.31    1540
10510.55    154010520.92 1539.89 10530.7 1539.7610547.87 1539.58 10557.7 1539.63
10565.13  1539.7 10575.1  1539.810596.96 1539.8610604.97 1539.7510610.37  1539.6
10618.72 1539.6110634.21    154010726.73  1540.610755.06 1540.7810764.82  1540.8
10774.22 1540.9110785.69  1540.910801.46 1541.0310812.34 1541.0710822.56 1541.17
10833.78  1541.710844.03 1542.22 10848.8  1542.410859.42 1542.7410877.49  1543.2
10890.57 1543.6210899.49    1544

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 9418.65     .05 9944.91     .0410063.45     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9944.9110063.45           228.41  206.07  172.48            .1       .3
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1542.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1541.56	Reach Len. (ft)	228.41	206.07	172.48
Crit W.S. (ft)		Flow Area (sq ft)	471.33	490.75	1155.87
E.G. Slope (ft/ft)	0.007271	Area (sq ft)	471.33	490.75	1155.87
Q Total (cfs)	9700.00	Flow (cfs)	1874.81	3976.27	3848.93
Top Width (ft)	1125.09	Top Width (ft)	239.26	118.54	767.29
Vel Total (ft/s)	4.58	Avg. Vel. (ft/s)	3.98	8.10	3.33
Max Chl Dpth (ft)	7.17	Hydr. Depth (ft)	1.97	4.14	1.51
Conv. Total (cfs)	113754.6	Conv. (cfs)	21986.4	46630.8	45137.4
Length Wtd. (ft)	199.37	Wetted Per. (ft)	239.67	119.96	767.37
Min Ch El (ft)	1534.39	Shear (lb/sq ft)	0.89	1.86	0.68
Alpha	1.64	Stream Power (lb/ft s)	3.55	15.05	2.28
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	26.50	25.57	45.77
C & E Loss (ft)	0.08	Cum SA (acres)	14.29	5.21	20.68

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1543.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.040	0.050
W.S. Elev (ft)	1542.54	Reach Len. (ft)	228.41	206.07	172.48
Crit W.S. (ft)		Flow Area (sq ft)		607.49	1074.70
E.G. Slope (ft/ft)	0.005823	Area (sq ft)		607.49	1074.70
Q Total (cfs)	9700.00	Flow (cfs)		5022.23	4677.77
Top Width (ft)	520.09	Top Width (ft)		118.54	401.55
Vel Total (ft/s)	5.77	Avg. Vel. (ft/s)		8.27	4.35
Max Chl Dpth (ft)	8.15	Hydr. Depth (ft)		5.12	2.68
Conv. Total (cfs)	127117.9	Conv. (cfs)		65816.0	61301.8
Length Wtd. (ft)	192.87	Wetted Per. (ft)		121.97	404.16
Min Ch El (ft)	1534.39	Shear (lb/sq ft)		1.81	0.97
Alpha	1.34	Stream Power (lb/ft s)		14.97	4.21
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	13.70	29.33	34.60
C & E Loss (ft)	0.05	Cum SA (acres)	4.42	5.21	10.90

```
CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.25

INPUT
Description:
Station Elevation Data    num=     134
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9331.64  1541.9 9343.21  1541.5 9352.21 1541.13 9361.84  1540.4 9371.77 1539.97
 9381.69 1539.94 9391.69 1539.84 9402.07 1539.77 9412.64 1539.71 9422.58 1539.68
 9432.45  1539.6 9447.36 1539.57 9450.91 1539.56 9459.84 1539.54 9469.65 1539.52
 9470.89  1539.5 9480.35 1539.43 9481.73 1539.42 9494.26 1539.37 9502.63 1539.14
 9522.65 1539.03 9529.36 1538.87 9574.53  1538.6 9575.54 1538.64 9586.21    1538
 9590.37 1537.27 9591.48 1537.05 9593.07 1536.72 9593.26  1536.6 9594.37 1536.69
 9596.28  1536.7 9607.58 1536.79 9615.27  1536.8 9621.56  1537.7 9622.53 1537.91
 9625.33 1538.33 9631.57 1538.16 9640.34 1538.01 9645.96  1537.9 9676.43  1537.6
 9687.54 1536.99 9697.44 1536.96 9708.06 1537.16 9717.36 1537.33 9726.67  1537.6
 9734.59  1538.1 9824.91  1539.1 9840.98 1539.07 9862.04 1538.96 9934.67  1538.6
 9937.49    1538 9937.65 1538.03 9937.81    1538  9938.5 1537.87 9944.65  1536.7
 9948.15    1536 9950.16 1535.61  9953.2 1535.03 9974.83 1535.03 9975.38    1535
  9975.7 1534.99 9982.66    1534 9987.18  1533.4 9996.69    1532  9999.5  1531.5
 9999.79 1531.52  9999.8 1531.5210000.79    153210002.61 1532.6910005.51    1534
10007.05 1534.7610008.13 1535.2410009.73    153610013.25 1537.8510013.54    1538
10013.88 1538.1510014.03 1538.2310014.24 1538.3610015.93 1539.2110016.17  1539.2
10016.29 1539.1910016.35 1539.1910022.46  1539.110077.65 1539.0310102.46 1538.81
   10118 1538.5410122.71  1538.410134.86 1538.1710146.01    153810157.34 1537.71
10158.67 1537.7710159.28  1537.810163.27    153810182.69 1538.7310194.77  1539.1
10204.27 1539.3310204.88 1539.3510212.83 1538.96   10217  1538.710218.89 1538.67
10227.41    153810241.34 1537.6110242.33  1537.610258.63 1538.0910285.55 1538.32
10313.03  1538.510316.31 1538.5910349.65 1538.8510386.95 1539.1210396.78  1539.1
10407.14 1539.0210417.69 1538.8810423.16 1538.8910435.26 1538.9410447.23  1538.8
10460.44 1538.6510470.26  1538.610482.34 1538.4910491.64  1538.410501.87 1538.59
10512.61  1538.610523.56 1538.7410535.37 1538.8210542.81 1538.8910557.04 1539.03
10646.25 1539.8810655.44  1539.910670.26 1540.5310674.92  1540.710682.69 1541.03
10699.98 1541.5710703.23 1541.6910714.88 1541.9310722.42  1542.5

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
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 9331.64     .05 9625.33     .05 9934.67     .0410015.93     .0510204.27     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9934.6710015.93           175.71  212.24  229.28            .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev
 9331.64 9522.65    1542
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1541.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1540.88	Reach Len. (ft)	175.71	212.24	229.28
Crit W.S. (ft)	1540.11	Flow Area (sq ft)	1078.01	481.77	1350.98
E.G. Slope (ft/ft)	0.002811	Area (sq ft)	1287.64	481.77	1350.98
Q Total (cfs)	9700.00	Flow (cfs)	3226.75	3049.69	3423.56
Top Width (ft)	1323.78	Top Width (ft)	579.21	81.26	663.31
Vel Total (ft/s)	3.33	Avg. Vel. (ft/s)	2.99	6.33	2.53
Max Chl Dpth (ft)	9.38	Hydr. Depth (ft)	2.62	5.93	2.04
Conv. Total (cfs)	182938.5	Conv. (cfs)	60855.3	57516.1	64567.1
Length Wtd. (ft)	207.22	Wetted Per. (ft)	412.37	83.62	663.45
Min Ch El (ft)	1531.50	Shear (lb/sq ft)	0.46	1.01	0.36
Alpha	1.61	Stream Power (lb/ft s)	1.37	6.40	0.91
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	21.88	23.27	40.80
C & E Loss (ft)	0.04	Cum SA (acres)	12.14	4.73	17.85

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1542.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1541.82	Reach Len. (ft)	175.71	212.24	229.28
Crit W.S. (ft)	1540.84	Flow Area (sq ft)	424.97	557.57	1037.20
E.G. Slope (ft/ft)	0.003399	Area (sq ft)	424.97	557.57	1037.20
Q Total (cfs)	9700.00	Flow (cfs)	1489.06	4277.98	3932.96
Top Width (ft)	543.67	Top Width (ft)	144.67	81.26	317.74
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)	3.50	7.67	3.79
Max Chl Dpth (ft)	10.32	Hydr. Depth (ft)	2.94	6.86	3.26
Conv. Total (cfs)	166372.0	Conv. (cfs)	25540.0	73374.9	67457.1
Length Wtd. (ft)	211.83	Wetted Per. (ft)	147.78	83.62	320.93
Min Ch El (ft)	1531.50	Shear (lb/sq ft)	0.61	1.41	0.69
Alpha	1.46	Stream Power (lb/ft s)	2.14	10.86	2.60
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	12.58	26.57	30.42
C & E Loss (ft)	0.03	Cum SA (acres)	4.04	4.73	9.48

Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.21

INPUT
Description:
Station Elevation Data num= 273

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9188.91	1543.2	9197.93	1542.74	9198.88	1542.74	9202.07	1542.59	9203.75	1542.52
9207.05	1542.5	9223.64	1542.87	9228.21	1542.93	9230.35	1542.89	9231.1	1542.8
9232.02	1542.8	9233.12	1542.78	9234.55	1542.76	9236.61	1542.74	9236.71	1542.74
9238.22	1542.6	9243.62	1542.19	9244.28	1542.13	9245.1	1542.09	9245.26	1542.08
9246.08	1542.1	9247.05	1542.17	9248.48	1542.17	9252.85	1542.26	9255.47	1542
9256.46	1542	9256.97	1541.92	9257.49	1541.89	9257.56	1541.85	9263.87	1541.45
9269.4	1540.9	9279.53	1540.13	9280.53	1540.04	9281.25	1540	9281.85	1539.97
9283.17	1540	9286.87	1540.03	9287.06	1540.02	9287.25	1540.01	9287.59	1540
9295.32	1540	9298.05	1540.01	9298.69	1540.01	9299.87	1540.01	9305.12	1540.01
9307.97	1540	9311.81	1540	9312.82	1540	9315.3	1540	9317.42	1540
9322.07	1539.9	9323.42	1539.89	9325.24	1539.87	9329.19	1539.85	9332.18	1539.81
9337.3	1539.8	9341.56	1539.75	9341.81	1539.75	9345.37	1539.77	9345.95	1539.76
9348.13	1539.7	9348.41	1539.75	9350.87	1539.73	9352.8	1539.69	9355.94	1539.68
9357.96	1539.6	9359.92	1539.65	9361.4	1539.67	9362.94	1539.68	9365.91	1539.68
9369.38	1539.7	9371.04	1539.71	9374.74	1539.72	9377.11	1539.72	9381.34	1539.74
9383.47	1539.8	9385.07	1539.77	9400.44	1539.8	9404.78	1539.88	9404.88	1539.88
9407.2	1540	9411.33	1540.23	9413.15	1540.35	9414.42	1540.42	9418	1540.58
9419.52	1540.8	9420.86	1540.84	9421.54	1540.97	9424.41	1541.31	9424.59	1541.33
9425.32	1541.4	9428.56	1541.33	9430.44	1541.3	9432.26	1541.24	9433.91	1541.23
9436.47	1541.2	9438.67	1541.16	9442.58	1541.02	9444.31	1541.02	9445.39	1540.99
9447.46	1540.9	9456.81	1541.09	9458.06	1541.04	9458.93	1541.04	9460.21	1541
9461.84	1541	9463.07	1540.92	9480.16	1540.6	9500.31	1540.03	9500.5	1540.02
9501.24	1540	9502.56	1539.99	9502.73	1540	9502.97	1540	9504.51	1540
9505.04	1540.1	9507.06	1540	9535.61	1538.48	9542.95	1538	9547.03	1537.79
9549.28	1537.7	9555.83	1537.08	9562.74	1536.41	9572.16	1536.3	9578.31	1536.22
9591.96	1537.3	9593.08	1537.44	9598.3	1537.47	9638.9	1537.72	9654.36	1537.82
9662.24	1537.9	9667.17	1537.91	9683.49	1537.97	9684.54	1537.98	9685.25	1537.98
9685.69	1538	9686.1	1537.98	9690.99	1538	9698.92	1538.03	9723.46	1538.11
9734.53	1538.1	9741.36	1538.15	9764.77	1538.16	9777.95	1538.17	9782.56	1538.16
9783.86	1538.2	9792.9	1538.13	9801.16	1538.09	9809.58	1538.08	9817.57	1538.09
9824.59	1538.1	9832.47	1538.15	9841.66	1538.14	9852.77	1538.11	9863.02	1538.06
9868.56	1538	9875.44	1538.01	9884.79	1538	9915.51	1538	9917.21	1538
9932.6	1538.2	9938.13	1538.06	9942.19	1537.6	9942.21	1537.59	9942.46	1537.52
9946.35	1536.7	9950.25	1536	9956.76	1534.8	9957.03	1534.77	9958.24	1534.72
9960.82	1534.6	9968.26	1534	9978.17	1533.26	9995.76	1532	9996.29	1531.96
10000	1531.6	10004.9	1531.3210005.24		1531.6210005.67		153210006.59		1532.8

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10006.64  1532.810006.83 1533.1910007.83    153410010.11 1535.7310010.88 1535.98
10010.91    153610010.93 1536.0210013.53    153810013.83 1538.6810013.83  1538.7
10013.84 1538.6810013.86 1538.68 10014.3  1538.710014.91 1538.7110014.96  1538.7
10015.14 1538.7310015.22 1538.7310015.32 1538.7310015.99 1538.7110023.84  1538.4
10029.14 1538.21 10030.5 1538.1610037.91    153810071.98    153810112.08    1538
 10128.6    1538 10132.1    153810143.29    1538 10157.7    153810166.54    1538
10189.28    153810216.73 1538.3310228.05  1538.310250.04 1538.1310251.36  1538.1
10255.51 1538.0510262.83    153810262.87    153810314.48  1537.610316.06  1537.6
10324.32 1537.4210325.66 1537.3910329.01 1537.3510330.63 1537.3410333.09  1537.4
10336.86 1537.31 10340.6 1537.2510344.34 1537.17 10348.4  1537.110349.29  1537.1
10350.89 1537.0610350.91 1537.0610352.22 1537.0710354.57  1537.110356.86  1537.2
10357.48 1537.1510357.77 1537.14   10358 1537.14 10358.2 1537.13 10358.3  1537.1
10358.51 1537.1310358.84 1537.1410363.13 1537.16 10379.9 1537.26 10413.1  1537.5
 10506.5    1538 10538.9 1538.9110577.52    154010590.36 1540.1810617.89  1540.5
10636.07 1540.7710645.78 1540.8810651.72 1540.9310655.62 1540.9510659.12    1541
10704.67 1541.4710708.49 1541.5710709.15 1541.5810710.23  1541.610711.85  1541.6
10716.76 1541.66 10738.3 1541.8810742.96 1541.8810745.57 1541.8710747.38  1541.8
10748.83 1541.8210748.88 1541.8210749.19 1541.8210749.49 1541.8110750.08  1541.8
10751.03 1541.8210755.98 1541.8310804.67 1541.99

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9188.91     .05 9593.08     .05  9932.6     .0410013.83     .0510216.73     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9932.610013.83             316.01  333.28  361.06             .1      .3
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1540.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1539.63	Reach Len. (ft)	316.01	333.28	361.06
Crit W.S. (ft)		Flow Area (sq ft)	718.43	423.20	929.59
E.G. Slope (ft/ft)	0.006993	Area (sq ft)	718.43	423.20	929.59
Q Total (cfs)	9700.00	Flow (cfs)	2570.48	3848.09	3281.43
Top Width (ft)	1052.09	Top Width (ft)	420.35	81.23	550.51
Vel Total (ft/s)	4.68	Avg. Vel. (ft/s)	3.58	9.09	3.53
Max Chl Dpth (ft)	8.31	Hydr. Depth (ft)	1.71	5.21	1.69
Conv. Total (cfs)	115993.4	Conv. (cfs)	30738.0	46015.8	39239.6
Length Wtd. (ft)	336.82	Wetted Per. (ft)	420.53	84.51	550.58
Min Ch El (ft)	1531.32	Shear (lb/sq ft)	0.75	2.19	0.74
Alpha	1.84	Stream Power (lb/ft s)	2.67	19.88	2.60
Frctn Loss (ft)	1.90	Cum Volume (acre-ft)	17.84	21.06	34.80
C & E Loss (ft)	0.06	Cum SA (acres)	10.13	4.34	14.66

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1541.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1540.58	Reach Len. (ft)	316.01	333.28	361.06
Crit W.S. (ft)		Flow Area (sq ft)	474.59	500.40	720.17
E.G. Slope (ft/ft)	0.005938	Area (sq ft)	474.59	500.40	720.17
Q Total (cfs)	9700.00	Flow (cfs)	1977.83	4688.18	3033.99
Top Width (ft)	557.88	Top Width (ft)	190.89	81.23	285.76
Vel Total (ft/s)	5.72	Avg. Vel. (ft/s)	4.17	9.37	4.21
Max Chl Dpth (ft)	9.26	Hydr. Depth (ft)	2.49	6.16	2.52
Conv. Total (cfs)	125878.8	Conv. (cfs)	25666.7	60839.4	39372.7
Length Wtd. (ft)	335.65	Wetted Per. (ft)	193.32	84.51	288.66
Min Ch El (ft)	1531.32	Shear (lb/sq ft)	0.91	2.19	0.92
Alpha	1.57	Stream Power (lb/ft s)	3.79	20.56	3.90
Frctn Loss (ft)	1.77	Cum Volume (acre-ft)	10.77	23.99	25.80
C & E Loss (ft)	0.02	Cum SA (acres)	3.37	4.34	7.89

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

```
CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.15

INPUT
Description:
Station Elevation Data    num=     192
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 9457.12  1541.7 9459.82  1541.6 9460.49 1541.61 9461.47  1541.6 9463.91 1541.42
 9472.19  1540.7 9472.86 1540.72 9473.78 1540.58 9481.06 1540.14 9481.26 1540.12
 9481.45  1540.1 9482.65    1540 9486.76 1539.56 9488.86 1539.27 9496.06    1538
 9499.81  1537.4 9500.77 1537.26 9506.25 1537.25  9510.9 1537.23 9517.04 1537.19
 9521.82  1537.2 9536.27 1537.01 9537.69 1537.13 9547.21 1537.97 9550.31 1537.23
 9553.04  1536.6 9553.98 1536.37 9554.37 1536.27 9555.62    1536 9555.78 1535.97
 9555.88    1536 9556.09 1535.91 9556.79 1535.74 9557.04 1535.68 9573.94 1535.47
 9577.86  1535.4 9578.36 1535.42 9578.38 1535.42 9581.77    1536 9586.49 1536.69
 9587.47  1536.9 9594.62 1536.75 9607.49 1536.55 9641.43    1536 9643.88 1535.92
 9643.93  1535.9 9644.53 1535.86 9653.12    1535 9658.95 1534.44 9662.35 1534.94
  9669.3    1536 9670.25 1536.19 9670.73 1536.28 9674.16 1536.14 9676.02 1536.14
 9678.24  1536.1 9679.88 1536.14  9681.6 1536.11 9685.58    1536 9687.69 1535.96
  9688.6    1536 9688.96 1535.98  9689.2 1535.98 9690.39 1535.99 9690.97 1535.98
 9707.48  1535.9 9714.79 1535.92  9726.7 1535.94 9727.18 1535.94 9727.66 1535.95
 9728.31    1536 9734.33 1535.97 9735.13 1535.97 9747.29 1535.75 9747.96 1535.75
 9751.85  1535.7 9753.45  1535.5 9757.57 1535.39 9763.86 1535.31 9778.42 1535.21
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9782.79	1535.2	9788.73	1535.13	9796.2	1535.07	9804.28	1535.02	9808.43	1535
9812.17	1535	9815.77	1535.03	9819.53	1535.09	9823.88	1535.15	9834.48	1535.27
9859.34	1535.5	9868.72	1535.64	9879.91	1535.75	9893.19	1535.86	9900.2	1535.92
9909.03	1536	9909.27	1536	9922.2	1536.02	9929.98	1536.03	9937.93	1536.03
9938.5	1536	9939.06	1536.03	9939.82	1536.03	9941.49	1536.04	9942.4	1536.04
9944.85	1536	9948.15	1536.08	9955.29	1536.15	9973.95	1536.31	9974.03	1536.28
9974.57	1536	9977.68	1534.88	9979.65	1534	9984.55	1532.16	9984.87	1532
9985.45	1531.7	9985.54	1531.68	9985.66	1531.65	9986.13	1531.47	9989.07	1530.31
9989.54	1530.3	9989.75	1530.29	10000	1530.310010.84		1530.310017.46		1530.31
10018.94	1530.610019.32		1530.6210019.69		1530.6410025.53		1531.4610029.08		1532
10030.8	1532.310036.24		153310041.11		1533.7610042.05		1533.910042.57		1534
10042.71	153410042.81		1534.0110063.69		1534.7910090.64		1535.8810091.69		1535.92
10092.09	1535.910092.38		1535.910097.64		153610097.67		1536 10097.7		1536
10097.79	153610098.73		153610100.93		1536 10102.8		1536 10104.1		1536
10104.51	153610116.27		153610124.93		153610129.65		153610161.29		1535.97
10167.93	153610169.27		1535.9710226.93		153610249.25		1535.58 10255.5		1535.48
10266.5	1535.310291.88		1534.8210312.49		1534.4510314.39		1534.4410317.21		1534.36
10344.51	1535.110354.74		1535.3610359.04		1535.0710367.12		1534.510390.16		1535.12
10390.32	1535.110390.34		1535.1310393.98		1535.3910403.98		153610414.38		1536.69
10417.11	1536.810420.24		1536.9910421.24		1537.0510430.44		1537.2610440.95		1537.45
10448.93	1537.610469.82		1538 10481.6		1538.14 10488.2		1538.23	10491	1538.28
10495.23	1538.310500.73		1538.3910507.36		1538.4410514.54		1538.4810522.36		1538.5
10530.93	1538.510536.44		1538.54						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
9457.12	.05	9670.73	.05	9973.95	.0410092.38		.0510226.93		.05

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9973.9510092.38		270.67	320.65 330.52	.1	.3

CROSS SECTION OUTPUT Profile #100yr - FP

			Left OB	Channel	Right OB
E.G. Elev (ft)	1538.30	Element			
Vel Head (ft)	0.43	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1537.87	Reach Len. (ft)	270.67	320.65	330.52
Crit W.S. (ft)		Flow Area (sq ft)	916.57	572.81	786.16
E.G. Slope (ft/ft)	0.004619	Area (sq ft)	916.57	572.81	786.16
Q Total (cfs)	9700.00	Flow (cfs)	2966.41	4102.05	2631.55
Top Width (ft)	964.49	Top Width (ft)	475.49	118.43	370.57
Vel Total (ft/s)	4.26	Avg. Vel. (ft/s)	3.24	7.16	3.35
Max Chl Dpth (ft)	7.58	Hydr. Depth (ft)	1.93	4.84	2.12
Conv. Total (cfs)	142725.0	Conv. (cfs)	43647.5	60357.2	38720.4
Length Wtd. (ft)	307.80	Wetted Per. (ft)	476.24	119.91	370.72
Min Ch El (ft)	1530.29	Shear (lb/sq ft)	0.55	1.38	0.61
Alpha	1.54	Stream Power (lb/ft s)	1.80	9.86	2.05
Frctn Loss (ft)	1.74	Cum Volume (acre-ft)	11.91	17.25	27.69
C & E Loss (ft)	0.03	Cum SA (acres)	6.88	3.57	10.84

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

			Left OB	Channel	Right OB
E.G. Elev (ft)	1539.59	Element			
Vel Head (ft)	0.73	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1538.86	Reach Len. (ft)	270.67	320.65	330.52
Crit W.S. (ft)		Flow Area (sq ft)	592.34	690.33	358.66
E.G. Slope (ft/ft)	0.004713	Area (sq ft)	592.34	690.33	358.66
Q Total (cfs)	9700.00	Flow (cfs)	2587.46	5655.45	1457.09
Top Width (ft)	428.55	Top Width (ft)	185.34	118.43	124.78
Vel Total (ft/s)	5.91	Avg. Vel. (ft/s)	4.37	8.19	4.06
Max Chl Dpth (ft)	8.57	Hydr. Depth (ft)	3.20	5.83	2.87
Conv. Total (cfs)	141289.0	Conv. (cfs)	37688.6	82376.6	21223.8
Length Wtd. (ft)	309.97	Wetted Per. (ft)	189.08	119.91	127.65
Min Ch El (ft)	1530.29	Shear (lb/sq ft)	0.92	1.69	0.83
Alpha	1.34	Stream Power (lb/ft s)	4.03	13.88	3.36
Frctn Loss (ft)	1.82	Cum Volume (acre-ft)	6.90	19.44	21.32
C & E Loss (ft)	0.04	Cum SA (acres)	2.00	3.57	6.19

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 1.09

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9424.78	1542.3	9438.03	1540	9444.86	1539.14	9455.87	1537.8	9465.1	1537.77
9513.96	1536.83	9547.2	1536	9558.25	1535.57	9570.82	1535.53	9571.75	1535.55
9581.16	1535.81	9588.74	1536	9592.71	1536.34	9597.13	1535.6	9606.69	1534.51
9616.58	1534.49	9629.39	1534.45	9639.87	1535.75	9656.35	1535.24	9665.25	1534.52
9672.06	1534.44	9696.32	1533.9	9704.29	1533.69	9727.94	1533.85	9753.78	1531.36
9765.16	1532.6	9775.54	1533.71	9785.01	1533.9	9795.56	1534.1	9805.09	1533.71
9814.96	1533.51	9868.69	1533.6	9882.68	1533.56	9892.3	1533.5	9913.24	1533.39
9922.96	1533.19	9935.11	1532.78	9945.79	1532.84	9954.51	1532.7	9968.8	1533.6
9972.58	1532	9977.8	1530	9986.13	152810003.17		1526.5	10005.4	1527.52
10011.55	153010014.74		1531.3710016.19		153210019.92		1533.4510021.22		1534
10079.98	1534.0210158.96		153410189.09		1533.3510203.91		1532.9710212.81		1532.7
10259.64	1533.1	10275.9	1533.310292.66		1533.4110362.59		153410371.83		1534.26

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10385.76 1534.6510395.26 1534.8210408.74  1535.110415.43 1535.3110436.24 1535.96
10484.56 1537.9610485.32    153810507.37 1538.4210530.64  1538.8 10545.1 1538.99

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 9424.78     .05 9795.56     .05  9968.8     .0410021.22     .0510158.96     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9968.810021.22           363.02  441.86  501.81            .1       .3
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1536.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1535.75	Reach Len. (ft)	363.02	441.86	501.81
Crit W.S. (ft)	1535.64	Flow Area (sq ft)	763.78	335.42	784.29
E.G. Slope (ft/ft)	0.007114	Area (sq ft)	763.78	335.42	784.29
Q Total (cfs)	9700.00	Flow (cfs)	3143.03	3511.54	3045.43
Top Width (ft)	858.53	Top Width (ft)	397.84	52.42	408.27
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)	4.12	10.47	3.88
Max Chl Dpth (ft)	9.25	Hydr. Depth (ft)	1.92	6.40	1.92
Conv. Total (cfs)	115003.7	Conv. (cfs)	37263.9	41633.1	36106.8
Length Wtd. (ft)	450.02	Wetted Per. (ft)	398.34	54.92	408.32
Min Ch El (ft)	1526.50	Shear (lb/sq ft)	0.85	2.71	0.85
Alpha	1.88	Stream Power (lb/ft s)	3.50	28.40	3.31
Frctn Loss (ft)	2.81	Cum Volume (acre-ft)	6.69	13.91	21.73
C & E Loss (ft)	0.06	Cum SA (acres)	4.16	2.95	7.89

Warning: Divided flow computed for this cross-section.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1537.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.18	Wt. n-Val.	0.050	0.040	0.050
W.S. Elev (ft)	1536.55	Reach Len. (ft)	363.02	441.86	501.81
Crit W.S. (ft)	1536.35	Flow Area (sq ft)	438.86	377.25	575.01
E.G. Slope (ft/ft)	0.007458	Area (sq ft)	438.86	377.25	575.01
Q Total (cfs)	9700.00	Flow (cfs)	2422.73	4373.32	2903.95
Top Width (ft)	394.81	Top Width (ft)	136.06	52.42	206.33
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)	5.52	11.59	5.05
Max Chl Dpth (ft)	10.05	Hydr. Depth (ft)	3.23	7.20	2.79
Conv. Total (cfs)	112322.3	Conv. (cfs)	28054.2	50641.4	33626.6
Length Wtd. (ft)	449.88	Wetted Per. (ft)	139.11	54.92	210.07
Min Ch El (ft)	1526.50	Shear (lb/sq ft)	1.47	3.20	1.27
Alpha	1.56	Stream Power (lb/ft s)	8.11	37.08	6.44
Frctn Loss (ft)	3.32	Cum Volume (acre-ft)	3.69	15.51	17.78
C & E Loss (ft)	0.06	Cum SA (acres)	1.00	2.95	4.93

Warning: The cross section had to be extended vertically during the critical depth calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

```
CROSS SECTION          RIVER: Sonoran Wash
REACH: Sonoran Wash       RS: 1.00

INPUT
Description:
Station Elevation Data    num=      63
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  9609.1    1540 9622.48 1538.14 9635.72    1536 9647.53    1534 9647.65 1533.98
 9654.24  1533.7 9670.53 1533.08 9680.63 1532.84 9690.55  1532.8 9704.07 1532.83
 9710.01 1532.76 9720.07    1532  9733.6  1531.2 9740.25 1531.01 9743.19  1531.3
 9751.03 1532.11 9760.37    1532 9772.86 1531.99 9795.97 1531.97 9824.69 1531.95
 9852.14 1531.94 9883.51 1531.94 9890.84 1530.23 9900.58    1528 9904.98    1527
 9913.27  1527.5 9919.94  1527.9 9921.56    1528 9930.83  1528.1 9963.18 1528.81
 9971.56  1528.4 9980.21    1528 9990.04  1527.510000.85 1527.0210013.35  1529.4
10023.33  1531.110030.32 1531.3210040.14 1531.4610047.82 1531.6210058.85 1531.83
10075.53 1531.4810076.47 1531.4210091.61 1530.1910124.03    153010154.62 1530.06
10220.28    153010249.01    153010263.59 1529.2810269.59  1529.410277.32  1529.7
10301.91 1530.1510331.14  1530.110339.77 1530.1510351.58    153010382.77 1529.73
10399.13 1529.5910430.94 1531.9510439.26 1532.5810450.46  1533.410466.22 1533.65
10476.31  1533.810509.97 1534.1910556.47 1534.57

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
  9609.1     .08 9751.03     .08 9883.51    .03710058.85     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       9883.5110058.85           483.41   446.4  348.15            .1       .3
```

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1533.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.080	0.037	0.060
W.S. Elev (ft)	1533.08	Reach Len. (ft)	483.41	446.40	348.15
Crit W.S. (ft)		Flow Area (sq ft)	213.59	707.35	1102.05
E.G. Slope (ft/ft)	0.005523	Area (sq ft)	213.59	707.35	1102.05
Q Total (cfs)	9700.00	Flow (cfs)	298.75	5329.48	4071.77
Top Width (ft)	775.61	Top Width (ft)	213.01	175.34	387.26

Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)	1.40	7.53	3.69
Max Chl Dpth (ft)	6.08	Hydr. Depth (ft)	1.00	4.03	2.85
Conv. Total (cfs)	130519.4	Conv. (cfs)	4019.9	71711.4	54788.1
Length Wtd. (ft)	406.68	Wetted Per. (ft)	213.13	176.36	387.47
Min Ch El (ft)	1527.00	Shear (lb/sq ft)	0.35	1.38	0.98
Alpha	1.61	Stream Power (lb/ft s)	0.48	10.42	3.62
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	2.61	8.62	10.87
C & E Loss (ft)	0.09	Cum SA (acres)	1.62	1.79	3.30

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1534.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.98	Wt. n-Val.		0.037	0.060
W.S. Elev (ft)	1533.36	Reach Len. (ft)	483.41	446.40	348.15
Crit W.S. (ft)		Flow Area (sq ft)		756.09	640.53
E.G. Slope (ft/ft)	0.007325	Area (sq ft)		756.09	640.53
Q Total (cfs)	9700.00	Flow (cfs)		6821.78	2878.22
Top Width (ft)	378.76	Top Width (ft)		175.34	203.42
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		9.02	4.49
Max Chl Dpth (ft)	6.36	Hydr. Depth (ft)		4.31	3.15
Conv. Total (cfs)	113336.6	Conv. (cfs)		79706.9	33629.6
Length Wtd. (ft)	410.90	Wetted Per. (ft)		177.78	207.51
Min Ch El (ft)	1527.00	Shear (lb/sq ft)		1.94	1.41
Alpha	1.31	Stream Power (lb/ft s)		17.55	6.34
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1.87	9.76	10.78
C & E Loss (ft)	0.24	Cum SA (acres)	0.44	1.79	2.57

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Sonoran Wash
REACH: Sonoran Wash RS: 0.92

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
9840.45	1535.9	9841.82	1535.8	9842.18	1535.8	9842.47	1535.79	9842.78	1535.79
9843.11	1535.8	9843.88	1535.77	9844.62	1535.76	9845.33	1535.75	9852.21	1535.48
9852.88	1535.5	9854.72	1535.36	9855.9	1535.32	9857.5	1535.25	9859.47	1535.14
9863.89	1534.9	9865.91	1534.81	9871.08	1534.57	9874.57	1534.33	9877.93	1534.15
9878.07	1534.1	9878.77	1534.06	9879.07	1534.04	9879.24	1534	9886.65	1532.94
9888.67	1532.6	9892.03	1532	9896.25	1531.22	9902.73	1530	9910.86	1528.47
9911.77	1528.3	9912.19	1528.28	9920.18	1528	9920.7	1527.98	9921.24	1527.97
9924.03	1527.9	9927.14	1527.79	9927.4	1527.81	9927.81	1527.82	9931.41	1527.83
9933.2	1527.9	9934.3	1528	9937.41	1528.21	9938.17	1528.23	9941.04	1528.38
9942.13	1528.4	9944.69	1528.56	9946.46	1528.59	9948.32	1528.62	9953.79	1528.77
9955.77	1528.8	9959.26	1528.62	9960.92	1528.65	9962.82	1528.69	9964.83	1528.7
9965.45	1528.7	9967.94	1528.74	9968.88	1528.77	9970.14	1528.72	9973.09	1528.62
9975.28	1528.5	9977.62	1528.35	9980.42	1528.22	9980.58	1528.05	9980.6	1528
9980.82	1527.8	9981.52	1527.32	9982.54	1526	9984.44	1524.46	9984.9	1524
9985.04	1523.9	9985.2	1523.71	9985.48	1523.48	9993.75	1523.65	10000	1523.7
10005.87	1523.810007.94		1523.9810008.05		1523.9910008.19		152410012.21		1524.31
10031.44	1525.8 10034.7		1526 10052.9		1526.8310062.68		1527.3210094.14		1527.11
10115.7	152710121.53		1527.4810127.93		152810139.15		1528.9110144.15		1529.32
10155.3	1529.210169.41		1529.2310177.47		1529.1810182.09		1528.9110184.05		1528.9
10187.23	1528.910188.32		1528.8910190.67		1528.8710207.82		1528.7310216.47		1528.67
10225.12	1528.610236.78		1528.5310252.86		1528.41 10306.8		152810317.82		1527.59
10319.82	1527.5 10322.9		1527.4610324.31		1527.4210325.11		1527.4310327.37		1527.45
10328.93	1527.410331.19		1527.3510331.47		1527.34 10334.1		1527.3710335.22		1527.39
10340.2	1527.310342.21		1527.3710345.17		1527.4310346.08		1527.4310394.23		1526.34
10396.44	1526.310398.96		1526.2810418.41		152610424.45		1525.7810426.27		1525.72
10428.42	1525.610430.05		1525.5910431.45		1525.7810433.44		152610436.03		1526.3
10438.76	1526.510448.48		1526.8410451.69		1526.9110451.79		1526.9210465.15		1527.58
10469.88	1527.810471.38		1527.9 10473.5		152810474.24		1528.0410474.75		1528.07
10475.71	1528.210476.58		1528.2310490.79		1529.2910493.97		1529.5310494.46		1529.54
10496.88	1529.610507.12		1529.9 10507.6		1529.9110509.95		153010557.12		1531.31
10577.64	153210580.36		1532.0510582.76		1532.0810585.63		1532.1510594.61		1532.42
10598.59	1532.510598.84		1532.5610600.78		1532.5910602.35		1532.610604.34		1532.61
10606.72	1532.610612.44		1532.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
9840.45	.08	9970.14	.03710144.15		.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
9970.1410144.15 0 0 0 .1 .3

CROSS SECTION OUTPUT Profile #100yr - FP

E.G. Elev (ft)	1532.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.080	0.037	0.060
W.S. Elev (ft)	1532.10	Reach Len. (ft)			
Crit W.S. (ft)	1529.89	Flow Area (sq ft)	257.63	975.07	1617.65

E.G. Slope (ft/ft)	0.001802	Area (sq ft)	257.63	975.07	1617.65
Q Total (cfs)	9700.00	Flow (cfs)	446.44	5200.94	4052.62
Top Width (ft)	692.11	Top Width (ft)	78.67	174.01	439.43
Vel Total (ft/s)	3.40	Avg. Vel. (ft/s)	1.73	5.33	2.51
Max Chl Dpth (ft)	8.62	Hydr. Depth (ft)	3.27	5.60	3.68
Conv. Total (cfs)	228528.9	Conv. (cfs)	10517.9	122532.5	95478.5
Length Wtd. (ft)		Wetted Per. (ft)	79.06	176.16	439.66
Min Ch El (ft)	1523.48	Shear (lb/sq ft)	0.37	0.62	0.41
Alpha	1.56	Stream Power (lb/ft s)	0.64	3.32	1.04
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

CROSS SECTION OUTPUT Profile #100yr - FW

E.G. Elev (ft)	1533.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.17	Wt. n-Val.	0.080	0.037	0.060
W.S. Elev (ft)	1533.10	Reach Len. (ft)			
Crit W.S. (ft)	1529.89	Flow Area (sq ft)	336.30	1149.08	2057.08
E.G. Slope (ft/ft)	0.000921	Area (sq ft)	336.30	1149.08	2057.08
Q Total (cfs)	9700.00	Flow (cfs)	493.45	4888.65	4317.90
Top Width (ft)	692.11	Top Width (ft)	78.67	174.01	439.43
Vel Total (ft/s)	2.74	Avg. Vel. (ft/s)	1.47	4.25	2.10
Max Chl Dpth (ft)	9.62	Hydr. Depth (ft)	4.27	6.60	4.68
Conv. Total (cfs)	319662.7	Conv. (cfs)	16261.7	161105.1	142295.9
Length Wtd. (ft)		Wetted Per. (ft)	80.06	176.16	440.66
Min Ch El (ft)	1523.48	Shear (lb/sq ft)	0.24	0.37	0.27
Alpha	1.49	Stream Power (lb/ft s)	0.35	1.60	0.56
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

SUMMARY OF MANNING'S N VALUES

River:Sonoran Wash

Reach	River Sta.	n1	n2	n3	n4	n5	n6
Sonoran Wash	3.84	.06	.045	.055	.055		
Sonoran Wash	3.79	.06	.045	.055			
Sonoran Wash	3.76	.06	.045	.06	.045	.055	
Sonoran Wash	3.73	.06	.045	.06	.06	.045	.055
Sonoran Wash	3.70	.06	.06	.045	.055		
Sonoran Wash	3.65	.06	.06	.045	.055		
Sonoran Wash	3.61	.06	.045	.055			
Sonoran Wash	3.54	.06	.045	.055			
Sonoran Wash	3.46	.06	.045	.055			
Sonoran Wash	3.40	.06	.045	.055			
Sonoran Wash	3.31	.06	.06	.045	.055		
Sonoran Wash	3.24	.06	.045	.055			
Sonoran Wash	3.15	.06	.06	.045	.055	.055	
Sonoran Wash	3.10	.06	.045	.055	.055		
Sonoran Wash	3.05	.06	.045	.055	.055		
Sonoran Wash	2.97	.06	.045	.055			
Sonoran Wash	2.93	.06	.06	.045	.06	.045	.055
Sonoran Wash	2.88	.06	.045	.06	.06	.045	.055
Sonoran Wash	2.84	.06	.045	.06	.045	.055	
Sonoran Wash	2.77	.06	.045	.06	.045	.055	
Sonoran Wash	2.73	.06	.06	.045	.055		
Sonoran Wash	2.69	.06	.06	.045	.055	.036	.055
Sonoran Wash	2.64	.06	.045	.055	.055		
Sonoran Wash	2.58	.06	.045	.055	.055		
Sonoran Wash	2.52	.06	.045	.055	.055		
Sonoran Wash	2.46	.06	.06	.045	.055		
Sonoran Wash	2.41	.06	.045	.06	.055	.06	
Sonoran Wash	2.35	.06	.06	.045	.055		
Sonoran Wash	2.28	.06	.045	.055	.055		
Sonoran Wash	2.19	.06	.045	.055	.055		
Sonoran Wash	2.13	.06	.06	.045	.055	.055	
Sonoran Wash	2.08	.06	.06	.045	.055		
Sonoran Wash	1.99	.06	.045	.055	.055	.055	
Sonoran Wash	1.90	.06	.06	.045	.055		
Sonoran Wash	1.84	.06	.06	.045	.055	.036	.05
Sonoran Wash	1.77	.05	.05	.04	.05	.05	
Sonoran Wash	1.72	.05	.04	.05			
Sonoran Wash	1.65	.05	.04	.05			
Sonoran Wash	1.56	.05	.05	.04	.05	.05	
Sonoran Wash	1.48	.05	.05	.04	.05	.05	
Sonoran Wash	1.38	.05	.04	.05	.05		
Sonoran Wash	1.33	.05	.05	.04	.05	.05	
Sonoran Wash	1.29	.05	.04	.05			
Sonoran Wash	1.25	.05	.05	.04	.05	.05	
Sonoran Wash	1.21	.05	.05	.04	.05	.05	
Sonoran Wash	1.15	.05	.05	.04	.05	.05	
Sonoran Wash	1.09	.05	.05	.04	.05	.05	
Sonoran Wash	1.00	.08	.08	.037	.06		
Sonoran Wash	0.92	.08	.037	.06			

SUMMARY OF REACH LENGTHS

River: Sonoran Wash

Reach	River Sta.	Left	Channel	Right
Sonoran Wash	3.84	285.32	272.62	229.06
Sonoran Wash	3.79	184.88	180.77	123.11
Sonoran Wash	3.76	161.68	172.64	149.88
Sonoran Wash	3.73	177.18	267.76	153.48
Sonoran Wash	3.70	195.28	254.18	297.16
Sonoran Wash	3.65	198.65	205.64	187.36
Sonoran Wash	3.61	390.89	389.3	386.91
Sonoran Wash	3.54	435.96	440.05	442.16
Sonoran Wash	3.46	267.6	296.32	322.93
Sonoran Wash	3.40	401.74	459.84	480.49
Sonoran Wash	3.31	366.29	396.52	408.42
Sonoran Wash	3.24	445.59	479.85	469.13
Sonoran Wash	3.15	273.66	262.05	262.19
Sonoran Wash	3.10	253.81	246.77	218.34
Sonoran Wash	3.05	462.57	427.28	371.63
Sonoran Wash	2.97	258.19	218.23	157.54
Sonoran Wash	2.93	297.95	238.37	236.36
Sonoran Wash	2.88	237.82	234.26	230.56
Sonoran Wash	2.84	330.86	324.24	320.86
Sonoran Wash	2.77	178.45	226.63	231.52
Sonoran Wash	2.73	128.19	200.52	336.66
Sonoran Wash	2.69	210.07	264.16	263.43
Sonoran Wash	2.64	327.74	314.05	284.2
Sonoran Wash	2.58	323.76	326.08	295.37
Sonoran Wash	2.52	239.22	329.13	394.08
Sonoran Wash	2.46	221.1	275.02	335.08
Sonoran Wash	2.41	318.45	326.48	347.74
Sonoran Wash	2.35	341.44	328.76	318.53
Sonoran Wash	2.28	507.59	485.85	455.74
Sonoran Wash	2.19	306.52	310.72	225.43
Sonoran Wash	2.13	269.34	278.55	369.36
Sonoran Wash	2.08	498.06	502.15	512.37
Sonoran Wash	1.99	403.84	411.33	415.61
Sonoran Wash	1.90	350.25	330.65	384.15
Sonoran Wash	1.84	217.35	381.23	448.24
Sonoran Wash	1.77	210.81	279.94	312.97
Sonoran Wash	1.72	293.43	329.52	369.98
Sonoran Wash	1.65	501.27	499.86	500.22
Sonoran Wash	1.56	407.49	424.91	417.75
Sonoran Wash	1.48	515.83	509.1	474.96
Sonoran Wash	1.38	300.39	262.91	127.93
Sonoran Wash	1.33	216.19	224.01	142.68
Sonoran Wash	1.29	228.41	206.07	172.48
Sonoran Wash	1.25	175.71	212.24	229.28
Sonoran Wash	1.21	316.01	333.28	361.06
Sonoran Wash	1.15	270.67	320.65	330.52
Sonoran Wash	1.09	363.02	441.86	501.81
Sonoran Wash	1.00	483.41	446.4	348.15
Sonoran Wash	0.92	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Sonoran Wash

Reach	River Sta.	Contr.	Expan.
Sonoran Wash	3.84	.1	.3
Sonoran Wash	3.79	.1	.3
Sonoran Wash	3.76	.1	.3
Sonoran Wash	3.73	.1	.3
Sonoran Wash	3.70	.1	.3
Sonoran Wash	3.65	.1	.3
Sonoran Wash	3.61	.1	.3
Sonoran Wash	3.54	.1	.3
Sonoran Wash	3.46	.1	.3
Sonoran Wash	3.40	.1	.3
Sonoran Wash	3.31	.1	.3
Sonoran Wash	3.24	.1	.3
Sonoran Wash	3.15	.1	.3
Sonoran Wash	3.10	.1	.3
Sonoran Wash	3.05	.1	.3
Sonoran Wash	2.97	.1	.3
Sonoran Wash	2.93	.1	.3
Sonoran Wash	2.88	.1	.3
Sonoran Wash	2.84	.1	.3
Sonoran Wash	2.77	.1	.3
Sonoran Wash	2.73	.1	.3
Sonoran Wash	2.69	.1	.3
Sonoran Wash	2.64	.1	.3
Sonoran Wash	2.58	.1	.3
Sonoran Wash	2.52	.1	.3
Sonoran Wash	2.46	.1	.3
Sonoran Wash	2.41	.1	.3
Sonoran Wash	2.35	.1	.3
Sonoran Wash	2.28	.1	.3
Sonoran Wash	2.19	.1	.3
Sonoran Wash	2.13	.1	.3
Sonoran Wash	2.08	.1	.3

Sonoran Wash	1.99	.1	.3
Sonoran Wash	1.90	.1	.3
Sonoran Wash	1.84	.1	.3
Sonoran Wash	1.77	.1	.3
Sonoran Wash	1.72	.1	.3
Sonoran Wash	1.65	.1	.3
Sonoran Wash	1.56	.1	.3
Sonoran Wash	1.48	.1	.3
Sonoran Wash	1.38	.1	.3
Sonoran Wash	1.33	.1	.3
Sonoran Wash	1.29	.1	.3
Sonoran Wash	1.25	.1	.3
Sonoran Wash	1.21	.1	.3
Sonoran Wash	1.15	.1	.3
Sonoran Wash	1.09	.1	.3
Sonoran Wash	1.00	.1	.3
Sonoran Wash	0.92	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Sonoran Wash	0.92	9700.0	1523.5	1532.1	1529.9	1532.4	0.001802	5.3	2850.4	692.1	0.4
Sonoran Wash	0.92	9700.0	1523.5	1533.1	1529.9	1533.3	0.000921	4.3	3542.5	692.1	0.3
Sonoran Wash	1.00	9700.0	1527.0	1533.1		1533.7	0.005523	7.5	2023.0	775.6	0.7
Sonoran Wash	1.00	9700.0	1527.0	1533.4		1534.3	0.007325	9.0	1396.6	378.8	0.8
Sonoran Wash	1.09	9700.0	1526.5	1535.7	1535.6	1536.5	0.007114	10.5	1883.5	858.5	0.7
Sonoran Wash	1.09	9700.0	1526.5	1536.5	1536.4	1537.7	0.007458	11.6	1391.1	394.8	0.8
Sonoran Wash	1.15	9700.0	1530.3	1537.9		1538.3	0.004619	7.2	2275.6	964.5	0.6
Sonoran Wash	1.15	9700.0	1530.3	1538.9		1539.6	0.004713	8.2	1641.3	428.5	0.6
Sonoran Wash	1.21	9700.0	1531.3	1539.6		1540.3	0.006993	9.1	2071.2	1052.1	0.7
Sonoran Wash	1.21	9700.0	1531.3	1540.6		1541.4	0.005938	9.4	1695.2	557.9	0.7
Sonoran Wash	1.25	9700.0	1531.5	1540.9	1540.1	1541.2	0.002811	6.3	2910.8	1323.8	0.5
Sonoran Wash	1.25	9700.0	1531.5	1541.8	1540.8	1542.3	0.003399	7.7	2019.7	543.7	0.5
Sonoran Wash	1.29	9700.0	1534.4	1541.6		1542.1	0.007271	8.1	2117.9	1125.1	0.7
Sonoran Wash	1.29	9700.0	1534.4	1542.5		1543.2	0.005823	8.3	1682.2	520.1	0.6
Sonoran Wash	1.33	9700.0	1536.8	1542.8		1543.3	0.006385	8.4	2193.3	1117.4	0.7
Sonoran Wash	1.33	9700.0	1536.8	1543.6		1544.4	0.006576	9.3	1647.9	555.4	0.7
Sonoran Wash	1.38	9700.0	1536.7	1544.0	1543.6	1544.4	0.005587	8.4	2265.2	1055.5	0.6
Sonoran Wash	1.38	9700.0	1536.7	1544.9		1545.6	0.005900	9.3	1756.9	569.8	0.7
Sonoran Wash	1.48	9700.0	1539.4	1547.0		1547.9	0.008731	10.6	1712.8	837.9	0.8
Sonoran Wash	1.48	9700.0	1539.4	1547.9		1549.2	0.008641	11.4	1293.7	399.1	0.8
Sonoran Wash	1.56	9700.0	1542.0	1550.1		1550.7	0.005011	9.0	2082.6	901.2	0.6
Sonoran Wash	1.56	9700.0	1542.0	1551.0		1551.8	0.004277	9.1	1627.1	377.3	0.6
Sonoran Wash	1.65	9700.0	1543.0	1552.9	1552.9	1554.0	0.006583	10.6	1741.5	880.9	0.7
Sonoran Wash	1.65	9700.0	1543.0	1553.2		1555.1	0.008667	12.5	1093.7	301.9	0.8
Sonoran Wash	1.72	9700.0	1544.6	1555.1		1555.9	0.004855	8.9	1976.3	893.8	0.6
Sonoran Wash	1.72	9700.0	1544.6	1556.1		1557.0	0.004066	8.9	1437.9	295.3	0.6
Sonoran Wash	1.77	9700.0	1545.6	1556.4		1557.2	0.004862	8.7	2021.9	934.1	0.6
Sonoran Wash	1.77	9700.0	1545.6	1557.2		1558.2	0.005097	9.6	1392.5	345.2	0.6
Sonoran Wash	1.84	9700.0	1549.1	1558.4		1558.9	0.004741	8.3	2133.2	878.6	0.5
Sonoran Wash	1.84	9700.0	1549.1	1559.3		1560.0	0.003908	8.2	1637.2	360.0	0.5
Sonoran Wash	1.90	9700.0	1550.9	1560.2		1561.2	0.008112	11.2	1894.3	954.5	0.7
Sonoran Wash	1.90	9700.0	1550.9	1560.9		1561.7	0.005299	9.6	1907.2	619.9	0.6
Sonoran Wash	1.99	9700.0	1556.3	1563.3	1561.8	1563.6	0.004200	6.4	2402.0	1214.2	0.5
Sonoran Wash	1.99	9700.0	1556.3	1563.4	1562.3	1564.1	0.006745	8.2	1509.9	362.3	0.6
Sonoran Wash	2.08	8400.0	1558.5	1565.6		1565.9	0.004817	7.2	2305.1	1035.7	0.5
Sonoran Wash	2.08	8400.0	1558.5	1566.5		1567.0	0.004706	7.9	1721.6	481.9	0.5
Sonoran Wash	2.13	8400.0	1559.1	1567.2	1567.2	1568.8	0.015243	13.2	1115.0	857.2	0.9
Sonoran Wash	2.13	8400.0	1559.1	1568.0	1567.3	1569.0	0.008294	10.7	1302.9	392.0	0.7
Sonoran Wash	2.19	8400.0	1560.6	1570.1	1568.4	1570.5	0.003213	6.8	2093.9	1295.9	0.4
Sonoran Wash	2.19	8400.0	1560.6	1570.1	1568.6	1570.8	0.005496	8.6	1332.2	254.3	0.6
Sonoran Wash	2.28	8400.0	1564.1	1572.0		1573.2	0.009810	10.8	1157.0	376.0	0.8
Sonoran Wash	2.28	8400.0	1564.1	1572.9		1574.4	0.009629	11.3	918.6	163.7	0.7
Sonoran Wash	2.35	8400.0	1564.9	1574.9		1575.7	0.006118	8.5	1359.0	402.0	0.6

Sonoran Wash	2.35	8400.0	1564.9	1575.8		1576.8	0.005684	9.0	1103.3	206.2	0.6
Sonoran Wash	2.41	8400.0	1565.5	1576.7		1577.3	0.003596	7.8	2066.2	685.5	0.5
Sonoran Wash	2.41	8400.0	1565.5	1577.6		1578.4	0.004129	9.0	1451.1	290.0	0.5
Sonoran Wash	2.46	8400.0	1568.8	1577.7		1579.2	0.014037	11.9	1056.6	358.2	0.9
Sonoran Wash	2.46	8400.0	1568.8	1578.7		1580.3	0.010182	11.4	984.4	225.8	0.8
Sonoran Wash	2.52	8400.0	1571.6	1580.7		1581.0	0.002670	6.1	2021.3	483.0	0.4
Sonoran Wash	2.52	8400.0	1571.6	1581.4		1581.8	0.002495	6.3	1757.0	312.6	0.4
Sonoran Wash	2.58	8400.0	1573.7	1581.6		1582.5	0.007914	9.9	1449.1	539.5	0.7
Sonoran Wash	2.58	8400.0	1573.7	1582.1		1583.4	0.008583	10.9	1024.2	208.3	0.7
Sonoran Wash	2.64	8400.0	1576.0	1583.9		1584.6	0.005797	8.4	1559.1	461.7	0.6
Sonoran Wash	2.64	8400.0	1576.0	1584.7		1585.5	0.005555	8.6	1358.4	322.4	0.6
Sonoran Wash	2.69	8400.0	1576.5	1585.4		1585.8	0.003609	6.7	1983.9	654.4	0.5
Sonoran Wash	2.69	8400.0	1576.5	1586.2		1586.5	0.002517	6.0	2013.6	525.9	0.4
Sonoran Wash	2.73	6500.0	1578.3	1586.2		1586.9	0.007793	8.6	1183.5	380.6	0.7
Sonoran Wash	2.73	6500.0	1578.3	1586.7		1587.5	0.008030	9.2	976.2	230.0	0.7
Sonoran Wash	2.77	6500.0	1581.8	1587.8		1588.8	0.010465	9.1	963.0	362.9	0.8
Sonoran Wash	2.77	6500.0	1581.8	1588.3		1589.8	0.012997	10.7	750.6	206.6	0.9
Sonoran Wash	2.84	6500.0	1584.1	1590.7		1591.3	0.005710	7.5	1142.4	326.8	0.6
Sonoran Wash	2.84	6500.0	1584.1	1591.7		1592.2	0.004483	7.0	1108.4	227.0	0.5
Sonoran Wash	2.88	6500.0	1586.8	1592.6	1592.6	1593.7	0.015700	11.5	897.5	364.9	0.9
Sonoran Wash	2.88	6500.0	1586.8	1593.4	1593.4	1594.8	0.015871	12.2	807.4	244.6	0.9
Sonoran Wash	2.93	6500.0	1589.6	1595.6		1596.1	0.005621	7.2	1245.6	369.3	0.6
Sonoran Wash	2.93	6500.0	1589.6	1596.4		1597.1	0.004977	7.5	1059.2	208.8	0.5
Sonoran Wash	2.97	6500.0	1590.8	1597.3	1597.3	1598.6	0.012098	11.5	945.8	345.7	0.8
Sonoran Wash	2.97	6500.0	1590.8	1597.6	1597.6	1599.3	0.013468	12.6	727.0	186.7	0.9
Sonoran Wash	3.05	6500.0	1591.8	1600.9	1599.5	1601.6	0.004638	8.1	1135.0	272.5	0.5
Sonoran Wash	3.05	6500.0	1591.8	1601.6		1602.5	0.004595	8.6	948.2	158.0	0.5
Sonoran Wash	3.10	6500.0	1594.4	1602.1		1603.0	0.008068	9.0	977.5	275.3	0.7
Sonoran Wash	3.10	6500.0	1594.4	1602.7		1604.1	0.009442	10.4	729.4	144.5	0.8
Sonoran Wash	3.15	6500.0	1596.0	1604.1		1604.8	0.005743	8.7	1123.9	291.3	0.6
Sonoran Wash	3.15	6500.0	1596.0	1605.1		1606.0	0.005004	8.9	958.4	159.8	0.6
Sonoran Wash	3.24	6500.0	1598.8	1607.2		1608.1	0.008613	9.5	1025.6	292.1	0.7
Sonoran Wash	3.24	6500.0	1598.8	1607.9		1609.2	0.009145	10.3	809.8	167.5	0.7
Sonoran Wash	3.31	6500.0	1601.9	1610.2		1610.8	0.005724	7.8	1232.5	342.0	0.6
Sonoran Wash	3.31	6500.0	1601.9	1611.2		1612.0	0.005978	8.5	994.9	201.1	0.6
Sonoran Wash	3.40	6500.0	1604.1	1612.7		1613.6	0.006172	9.3	1073.4	283.4	0.6
Sonoran Wash	3.40	6500.0	1604.1	1613.7		1614.8	0.005872	9.9	849.4	139.8	0.6
Sonoran Wash	3.46	6500.0	1605.3	1614.4		1615.7	0.007451	10.8	891.1	228.8	0.7
Sonoran Wash	3.46	6500.0	1605.3	1615.4		1616.9	0.007264	10.7	733.1	114.4	0.6
Sonoran Wash	3.54	6500.0	1609.9	1617.9		1618.6	0.005383	7.7	1115.4	292.4	0.6
Sonoran Wash	3.54	6500.0	1609.9	1618.7		1619.5	0.004835	8.0	953.4	168.0	0.5
Sonoran Wash	3.61	6500.0	1611.3	1620.2		1621.5	0.009602	11.4	925.3	293.0	0.8
Sonoran Wash	3.61	6500.0	1611.3	1620.6		1622.5	0.010794	12.6	663.5	121.8	0.8
Sonoran Wash	3.65	6500.0	1613.9	1622.3		1622.7	0.003826	7.1	1440.0	407.6	0.5
Sonoran Wash	3.65	6500.0	1613.9	1623.2		1623.8	0.003397	7.3	1183.5	200.0	0.5
Sonoran Wash	3.70	3300.0	1615.5	1623.3		1623.5	0.002866	4.9	911.5	268.9	0.4
Sonoran Wash	3.70	3300.0	1615.5	1624.2		1624.5	0.002202	4.8	829.0	165.0	0.4

Sonoran Wash	3.73	3300.0	1618.9	1624.0		1624.2	0.004238	5.0	881.6	328.0	0.5
Sonoran Wash	3.73	3300.0	1618.9	1624.8		1625.2	0.005120	6.0	700.8	183.6	0.5
Sonoran Wash	3.76	3300.0	1620.2	1624.8		1625.2	0.008771	6.7	776.0	394.9	0.7
Sonoran Wash	3.76	3300.0	1620.2	1625.7		1626.4	0.010670	8.6	513.8	172.1	0.8
Sonoran Wash	3.79	3300.0	1621.1	1626.2		1626.6	0.008578	7.6	764.2	409.4	0.7
Sonoran Wash	3.79	3300.0	1621.1	1627.2		1628.0	0.008157	8.6	503.5	128.7	0.7
Sonoran Wash	3.84	3300.0	1621.6	1628.2	1627.9	1629.0	0.008215	8.8	623.9	303.4	0.7
Sonoran Wash	3.84	3300.0	1621.6	1629.2		1630.4	0.008471	10.0	408.0	84.8	0.7

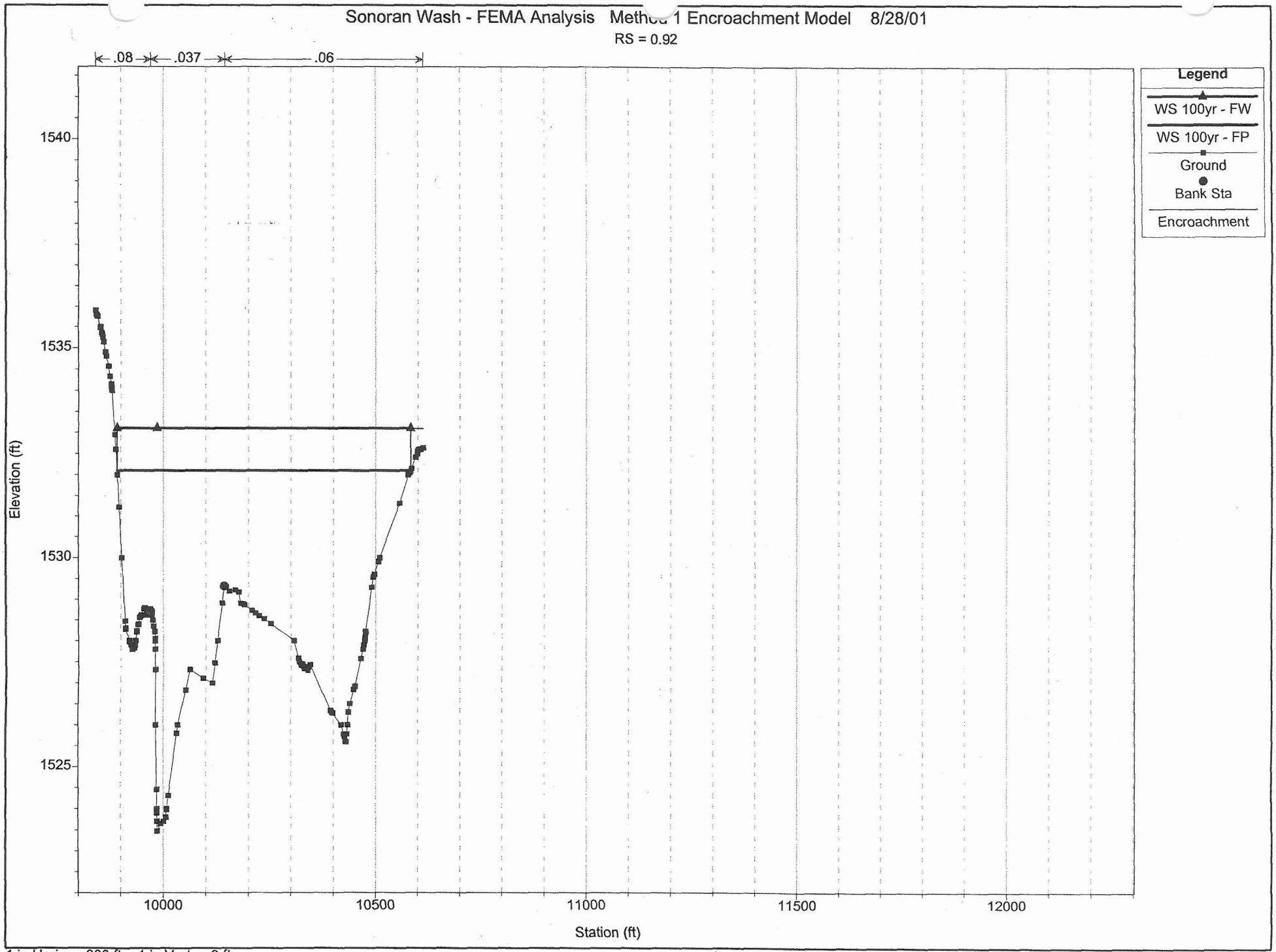
Profile Output Table - Encroachment 1

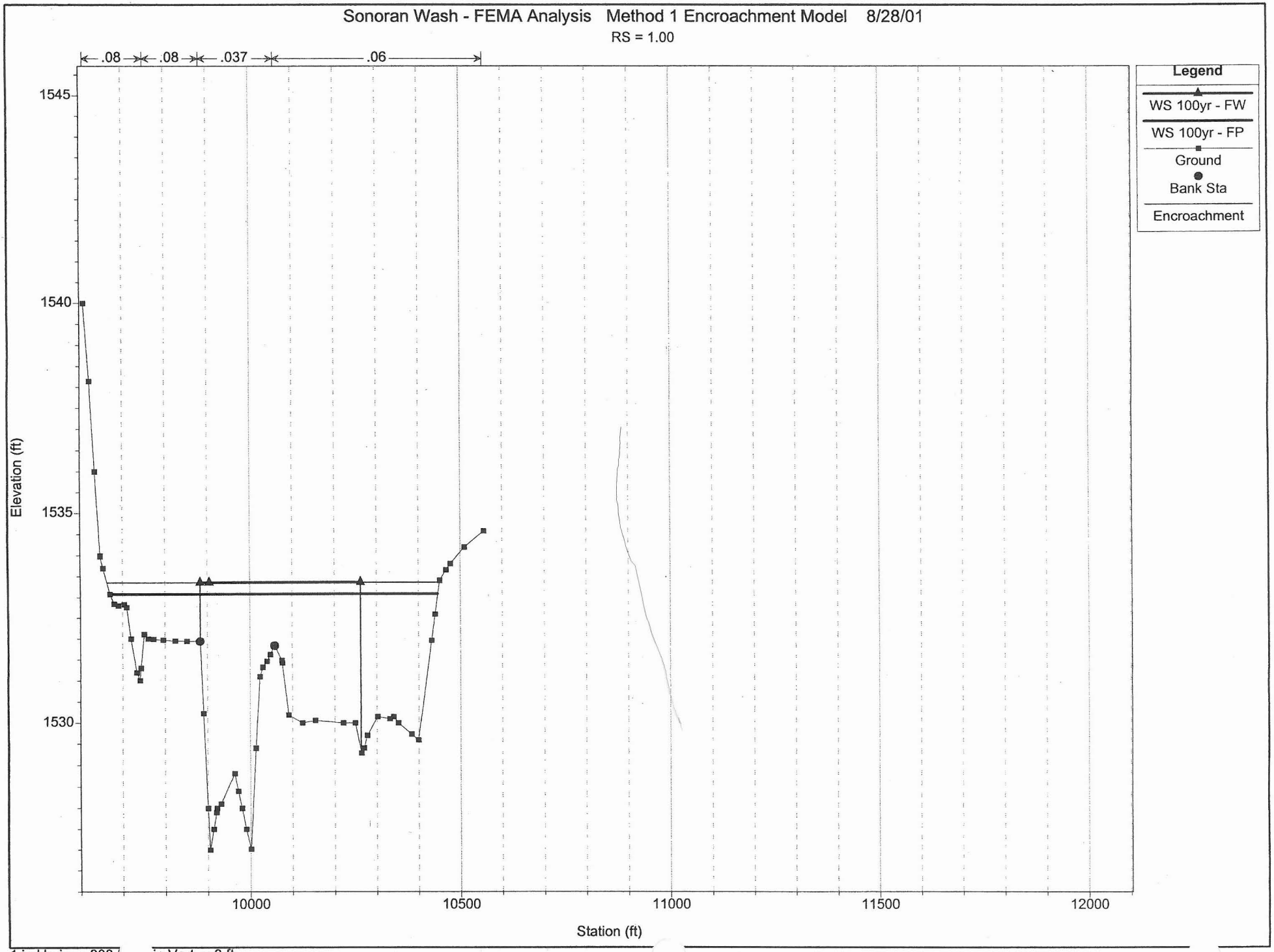
Reach	River Sta	W.S. Elev (ft)	Prof Delta WS (ft)	E.G. Elev (ft)	Top Wdth Act (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Enc Sta L (ft)	Ch Sta L (ft)	Ch Sta R (ft)	Enc Sta R (ft)
Sonoran Wash	0.92	1532.10		1532.38	692.11	446.44	5200.94	4052.62		9970.14	10144.15	
Sonoran Wash	0.92	1533.10	1.00	1533.27	692.11	493.45	4888.65	4317.90	9891.47	9970.14	10144.15	10583.58
Sonoran Wash	1.00	1533.08		1533.66	775.61	298.75	5329.48	4071.77		9883.51	10058.85	
Sonoran Wash	1.00	1533.36	0.28	1534.34	378.76		6821.78	2878.22	9883.51	9883.51	10058.85	10262.27
Sonoran Wash	1.09	1535.75		1536.52	858.53	3143.03	3511.54	3045.43		9968.80	10021.22	
Sonoran Wash	1.09	1536.55	0.80	1537.72	394.81	2422.73	4373.32	2903.95	9832.74	9968.80	10021.22	10227.55
Sonoran Wash	1.15	1537.87		1538.30	964.49	2966.41	4102.05	2631.55		9973.95	10092.38	
Sonoran Wash	1.15	1538.86	0.99	1539.59	428.55	2587.46	5655.45	1457.09	9788.61	9973.95	10092.38	10217.16
Sonoran Wash	1.21	1539.63		1540.26	1052.09	2570.48	3848.09	3281.43		9932.60	10013.83	
Sonoran Wash	1.21	1540.58	0.95	1541.38	557.88	1977.83	4688.18	3033.99	9741.71	9932.60	10013.83	10299.59
Sonoran Wash	1.25	1540.88		1541.16	1156.59	3226.75	3049.69	3423.56		9934.67	10015.93	
Sonoran Wash	1.25	1541.82	0.93	1542.34	543.67	1489.06	4277.98	3932.96	9790.00	9934.67	10015.93	10333.67
Sonoran Wash	1.29	1541.56		1542.09	1125.09	1874.81	3976.27	3848.93		9944.91	10063.45	
Sonoran Wash	1.29	1542.54	0.98	1543.23	520.09		5022.23	4677.77	9944.91	9944.91	10063.45	10465.00
Sonoran Wash	1.33	1542.81		1543.34	1117.35	602.93	3671.28	5425.79		9977.43	10067.24	
Sonoran Wash	1.33	1543.59	0.79	1544.40	555.43		4715.83	4984.17	9977.43	9977.43	10067.24	10532.86
Sonoran Wash	1.38	1543.96		1544.42	1055.49	61.20	2888.85	6749.95		9980.15	10044.00	
Sonoran Wash	1.38	1544.87	0.91	1545.58	569.85		3764.27	5935.73	9980.15	9980.15	10044.00	10550.00
Sonoran Wash	1.48	1547.02		1547.95	837.91	1280.67	4319.42	4099.91		9970.88	10045.11	
Sonoran Wash	1.48	1547.91	0.89	1549.23	399.12		5410.19	4289.81	9970.88	9970.88	10045.11	10370.00
Sonoran Wash	1.56	1550.07		1550.70	901.21	2253.98	4056.07	3389.95		9968.04	10037.68	
Sonoran Wash	1.56	1550.99	0.92	1551.77	377.30	1588.58	4677.91	3433.51	9862.68	9968.04	10037.68	10239.98
Sonoran Wash	1.65	1552.86		1553.98	880.92	1435.74	5786.97	2477.29		9943.26	10024.24	
Sonoran Wash	1.65	1553.17	0.30	1555.05	301.93	987.98	7140.64	1571.38	9834.79	9943.26	10024.24	10136.72
Sonoran Wash	1.72	1555.07		1555.86	893.85	2568.71	5900.23	1231.06		9922.46	10025.84	
Sonoran Wash	1.72	1556.06	0.99	1557.01	295.25	2712.35	6852.71	134.94	9738.01	9922.46	10025.84	10033.26
Sonoran Wash	1.77	1556.42		1557.16	934.12	2701.87	5623.58	1374.55		9911.62	10014.28	
Sonoran Wash	1.77	1557.15	0.73	1558.25	345.21	2385.26	6920.71	394.03	9717.00	9911.62	10014.28	10062.21
Sonoran Wash	1.84	1558.37		1558.92	878.60	1869.83	3418.79	4411.38		9978.53	10035.40	
Sonoran Wash	1.84	1559.34	0.97	1559.99	360.00	91.53	3829.72	5778.75	9970.00	9978.53	10035.40	10330.00
Sonoran Wash	1.90	1560.19		1561.23	954.55	1372.51	4708.81	3618.68		9967.59	10022.95	
Sonoran Wash	1.90	1560.89	0.70	1561.66	619.94	272.05	4410.40	5017.54	9946.11	9967.59	10022.95	10566.05
Sonoran Wash	1.99	1563.30		1563.65	924.14		3750.18	5949.82		9913.80	10025.95	
Sonoran Wash	1.99	1563.38	0.08	1564.12	362.25		4870.79	4829.21	9913.35	9913.80	10025.95	10276.96

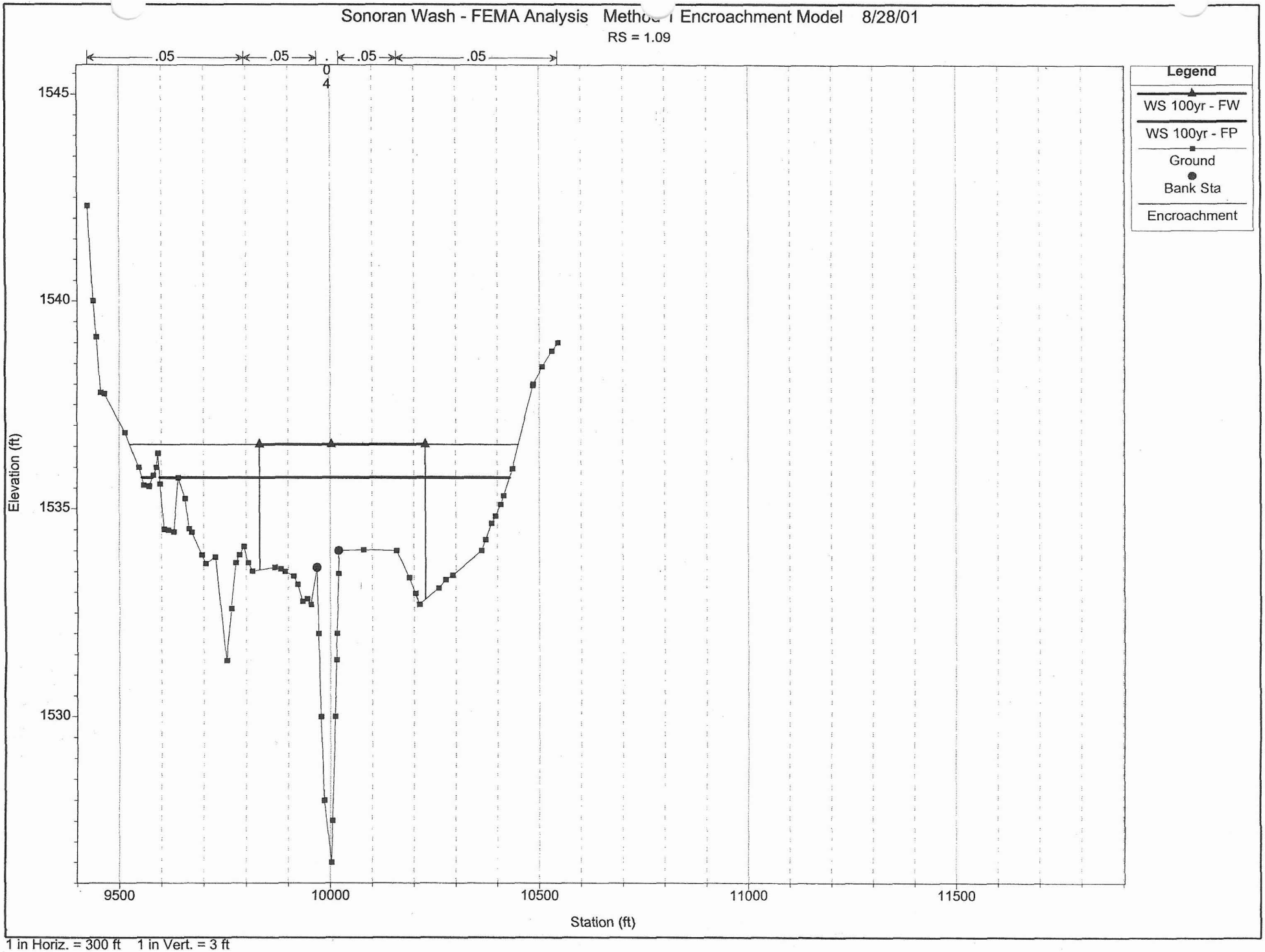
Sonoran Wash	2.08			1565.91	1035.69	2926.60	2664.07	2809.33		9977.22	10042.54	
Sonoran Wash	2.08	1566.47	0.91	1567.01	481.87	2514.61	3376.09	2509.30	9852.88	9977.22	10042.54	10334.75
Sonoran Wash	2.13			1568.76	585.45	666.10	4085.61	3648.29		9969.33	10020.13	
Sonoran Wash	2.13	1568.04	0.85	1569.04	392.00	1115.91	3744.55	3539.54	9840.00	9969.33	10020.13	10232.00
Sonoran Wash	2.19	1570.14		1570.48	594.79	760.41	2198.38	5441.21		9984.19	10026.15	
Sonoran Wash	2.19	1570.13	-0.01	1570.83	254.31		2773.52	5626.48	9984.19	9984.19	10026.15	10238.50
Sonoran Wash	2.28	1572.01		1573.17	375.97	449.85	4011.55	3938.60		9966.07	10026.90	
Sonoran Wash	2.28	1572.93	0.92	1574.41	163.68		4815.87	3584.13	9966.07	9966.07	10026.90	10129.75
Sonoran Wash	2.35	1574.88		1575.72	401.96	2847.32	5522.04	30.63		9965.84	10071.38	
Sonoran Wash	2.35	1575.76	0.88	1576.84	206.24	1599.06	6654.00	146.94	9906.20	9965.84	10071.38	10112.44
Sonoran Wash	2.41	1576.75		1577.25	685.53	2971.18	3742.59	1686.23		9970.64	10029.11	
Sonoran Wash	2.41	1577.62	0.87	1578.44	290.00	2442.97	4747.78	1209.26	9845.00	9970.64	10029.11	10135.00
Sonoran Wash	2.46	1577.71		1579.25	358.16	2467.41	5294.85	637.74		9941.82	10023.20	
Sonoran Wash	2.46	1578.73	1.02	1580.29	225.80	2313.11	5999.25	87.64	9802.63	9941.82	10023.20	10028.43
Sonoran Wash	2.52	1580.66		1581.03	482.97	1416.84	4258.97	2724.19		9925.04	10028.39	
Sonoran Wash	2.52	1581.40	0.74	1581.84	312.62	894.84	4886.44	2618.72	9870.05	9925.04	10028.39	10182.67
Sonoran Wash	2.58	1581.64		1582.53	539.53	694.09	3974.80	3731.11		9972.13	10034.79	
Sonoran Wash	2.58	1582.13	0.49	1583.42	208.35	1.45	4675.85	3722.70	9971.65	9972.13	10034.79	10180.00
Sonoran Wash	2.64	1583.95		1584.60	461.69	1896.41	4056.10	2447.49		9973.16	10052.11	
Sonoran Wash	2.64	1584.74	0.79	1585.52	322.37		4688.28	3711.72	9973.39	9973.16	10052.11	10295.76
Sonoran Wash	2.69	1585.40		1585.76	654.41	2276.60	2150.07	3973.33		9973.49	10024.54	
Sonoran Wash	2.69	1586.18	0.78	1586.50	525.91	1540.17	2179.27	4680.55	9843.00	9973.49	10024.54	10368.91
Sonoran Wash	2.73	1586.21		1586.86	380.64	3907.05	2592.95			9983.02	10045.34	
Sonoran Wash	2.73	1586.65	0.44	1587.50	229.96	3495.54	3004.46		9810.00	9983.02	10045.34	10039.96
Sonoran Wash	2.77	1587.84		1588.75	362.89	2641.74	3858.26			9944.10	10047.46	
Sonoran Wash	2.77	1588.31	0.47	1589.79	206.56	1449.62	5050.38		9834.00	9944.10	10047.46	10040.56
Sonoran Wash	2.84	1590.71		1591.26	326.79	4171.91	1757.52	570.58		9979.24	10023.52	
Sonoran Wash	2.84	1591.66	0.95	1592.21	227.02	4562.52	1937.48		9796.50	9979.24	10023.52	10023.52
Sonoran Wash	2.88	1592.60		1593.71	364.95	3468.41	2483.71	547.87		9981.34	10027.56	
Sonoran Wash	2.88	1593.40	0.80	1594.80	244.56	3413.86	3086.14		9783.00	9981.34	10027.56	10027.56
Sonoran Wash	2.93	1595.63		1596.13	369.29	2988.35	2593.40	918.25		9963.42	10036.00	
Sonoran Wash	2.93	1596.43	0.80	1597.07	208.83	2987.57	3128.94	383.49	9846.73	9963.42	10036.00	10055.56
Sonoran Wash	2.97	1597.31		1598.56	345.66	2052.37	3349.56	1098.07		9975.61	10026.12	
Sonoran Wash	2.97	1597.62	0.31	1599.34	186.67	1241.14	3853.94	1404.92	9910.00	9975.61	10026.12	10096.67
Sonoran Wash	3.05	1600.89		1601.56	272.51	83.74	3260.53	3155.73		9974.23	10032.48	
Sonoran Wash	3.05	1601.60	0.70	1602.45	157.97	89.36	3812.27	2598.37	9964.10	9974.23	10032.48	10122.07
Sonoran Wash	3.10	1602.14		1603.03	275.33		3720.01	2779.99		9955.79	10035.44	
Sonoran Wash	3.10	1602.72	0.58	1604.13	144.54		4751.97	1748.03	9959.56	9955.79	10035.44	10104.10
Sonoran Wash	3.15	1604.11		1604.83	291.29	2071.76	3069.37	1358.87		9968.90	10022.97	
Sonoran Wash	3.15	1605.08	0.97	1605.95	159.76	1915.29	3607.93	976.78	9905.47	9968.90	10022.97	10065.23
Sonoran Wash	3.24	1607.23		1608.11	292.12	3201.82	3298.18			9973.11	10037.96	
Sonoran Wash	3.24	1607.92	0.69	1609.15	167.50	2460.45	4039.55		9870.20	9973.11	10037.96	10037.96
Sonoran Wash	3.31	1610.21		1610.81	342.04	2600.53	3178.50	720.97		9948.97	10021.06	
Sonoran Wash	3.31	1611.19	0.97	1612.01	201.06	2476.67	4023.33		9820.00	9948.97	10021.06	10021.06
Sonoran Wash	3.40	1612.72		1613.55	283.45	763.82	3243.94	2492.23		9970.35	10020.95	
Sonoran Wash	3.40	1613.65	0.94	1614.77	139.77	275.10	3912.63	2312.27	9957.00	9970.35	10020.95	10096.77
Sonoran Wash	3.46	1614.45		1615.73	228.85	519.41	4167.92	1812.67		9979.06	10030.30	

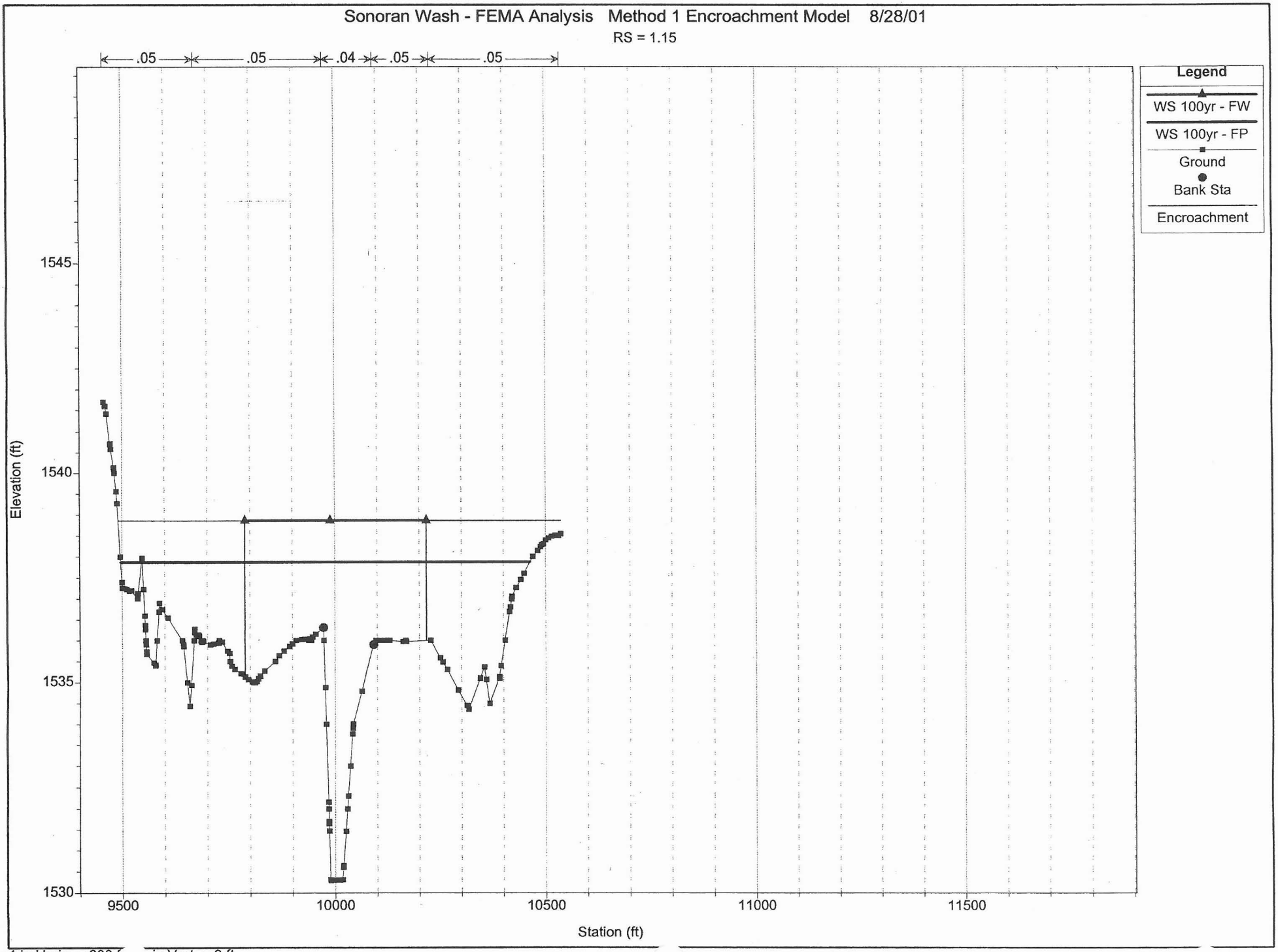
Sonoran Wash	3.46	1615.40	0.95	1616.85	114.44		4669.56	1830.44	9979.06	9979.06	10030.30	10093.50
Sonoran Wash	3.54	1617.89		1618.56	292.37	46.75	3872.02	2581.23		9955.05	10042.62	
Sonoran Wash	3.54	1618.69	0.79	1619.50	168.05	17.95	4554.86	1927.19	9951.95	9955.05	10042.62	10120.00
Sonoran Wash	3.61	1620.19		1621.49	293.05	1248.90	3755.62	1495.48		9979.07	10028.21	
Sonoran Wash	3.61	1620.63	0.44	1622.52	121.78	816.14	4426.19	1257.67	9954.03	9979.07	10028.21	10075.81
Sonoran Wash	3.65	1622.26		1622.72	407.56	2723.75	2984.16	792.08		9965.28	10029.36	
Sonoran Wash	3.65	1623.20	0.94	1623.77	200.00	2298.26	3512.83	688.91	9870.00	9965.28	10029.36	10070.00
Sonoran Wash	3.70	1623.29		1623.54	268.86	1623.39	1674.07	2.54		9979.89	10053.68	
Sonoran Wash	3.70	1624.21	0.92	1624.49	165.04	1317.67	1980.29	2.04	9890.00	9979.89	10053.68	10055.04
Sonoran Wash	3.73	1624.00		1624.24	328.03	480.45	571.05	2248.49		9986.19	10017.34	
Sonoran Wash	3.73	1624.81	0.81	1625.18	183.64		826.43	2473.57	9986.19	9986.19	10017.34	10169.83
Sonoran Wash	3.76	1624.85		1625.20	394.94	910.61	929.69	1459.70		9981.25	10024.03	
Sonoran Wash	3.76	1625.67	0.82	1626.43	172.06	330.82	1494.25	1474.93	9959.21	9981.25	10024.03	10131.27
Sonoran Wash	3.79	1626.16		1626.64	409.38	1081.35	1383.22	835.43		9983.71	10029.62	
Sonoran Wash	3.79	1627.18	1.02	1628.02	128.65	1316.88	1974.19	8.93	9902.30	9983.71	10029.62	10030.95
Sonoran Wash	3.84	1628.20		1628.97	303.39	800.90	1893.74	605.36		9978.04	10019.37	
Sonoran Wash	3.84	1629.15	0.96	1630.44	84.75	570.96	2547.92	181.12	9946.42	9978.04	10019.37	10031.17

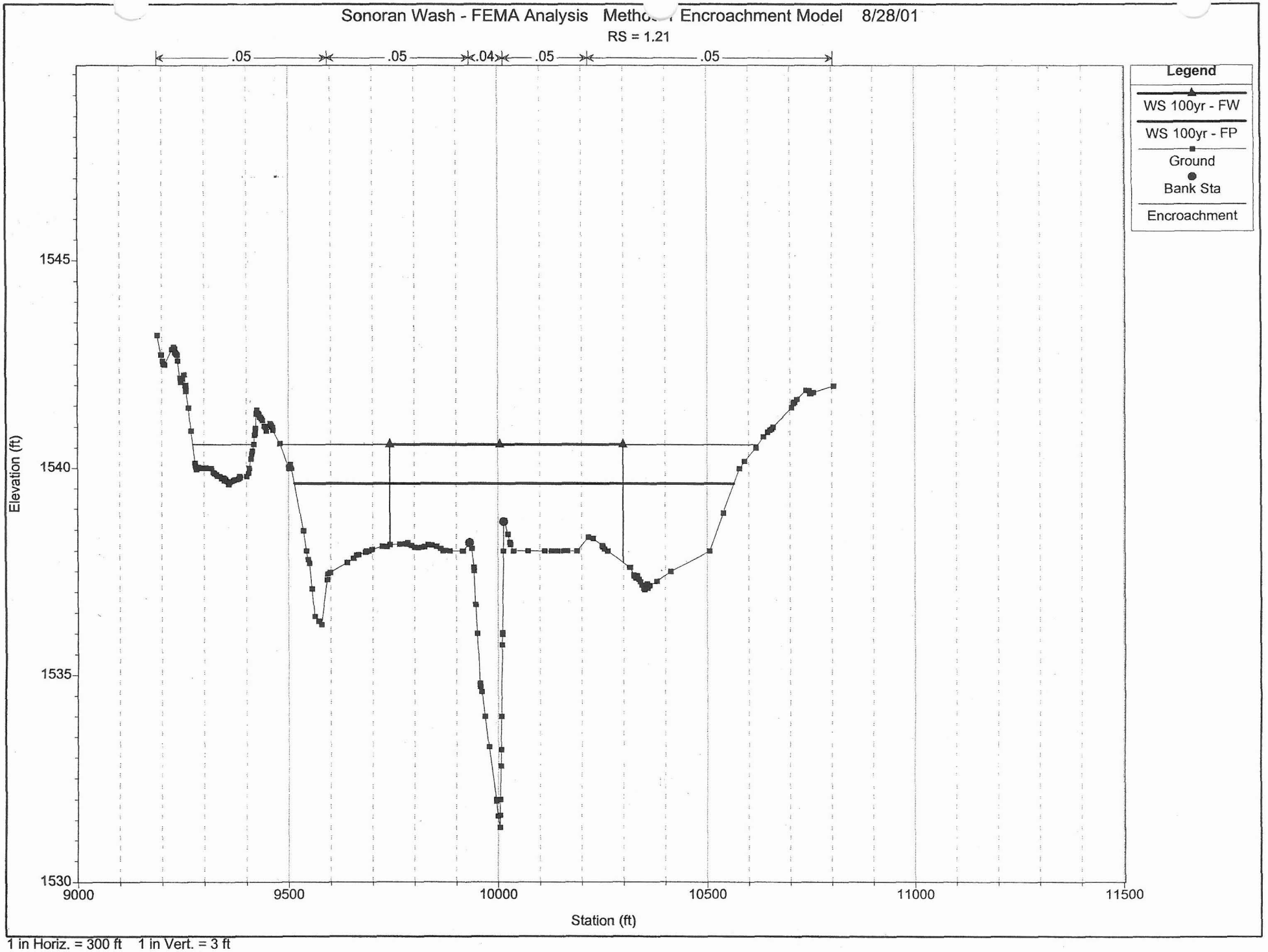
HEC-RAS Cross-Section Plots

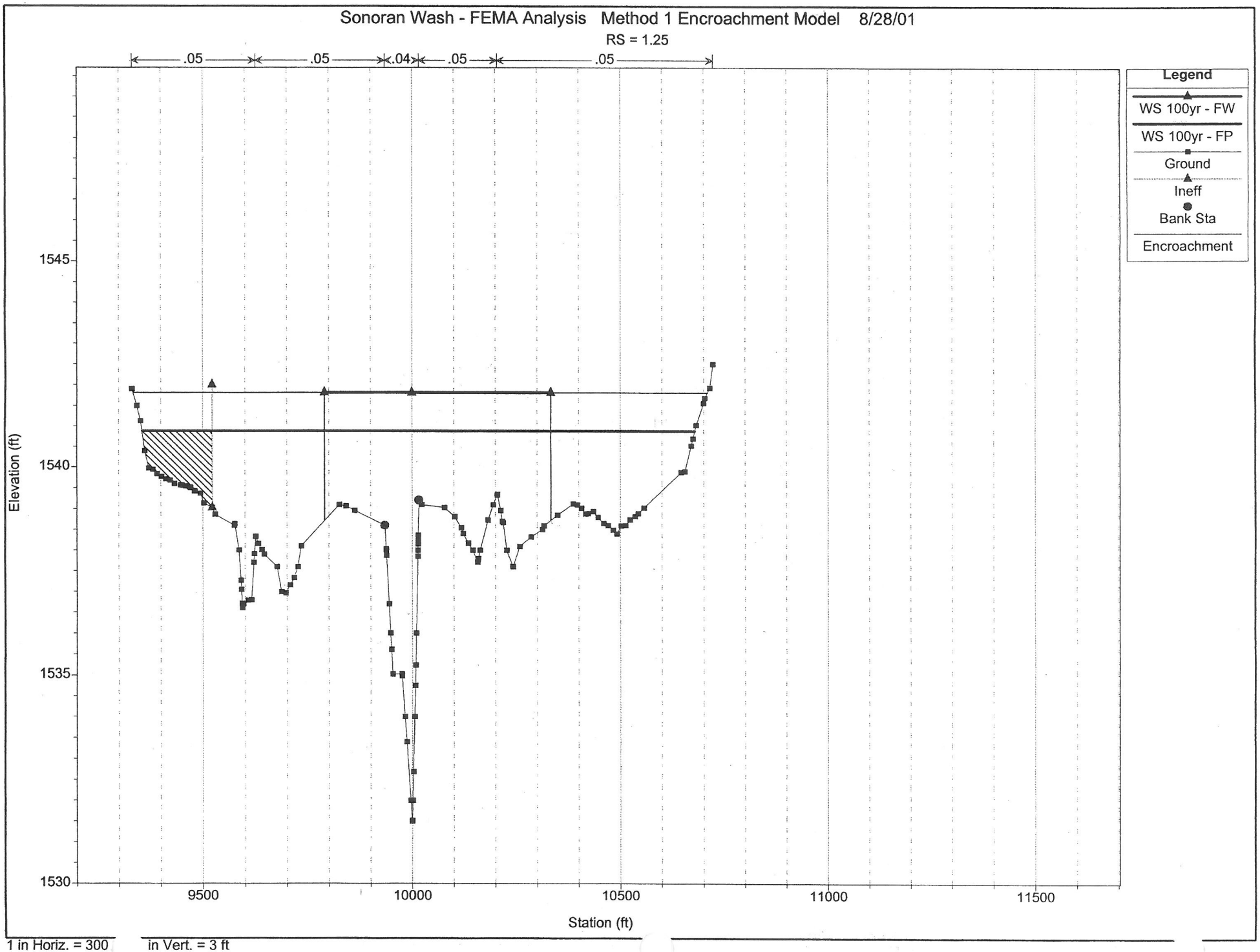

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 0.92
.08
.037
.06
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1540
1535
1530
1525
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

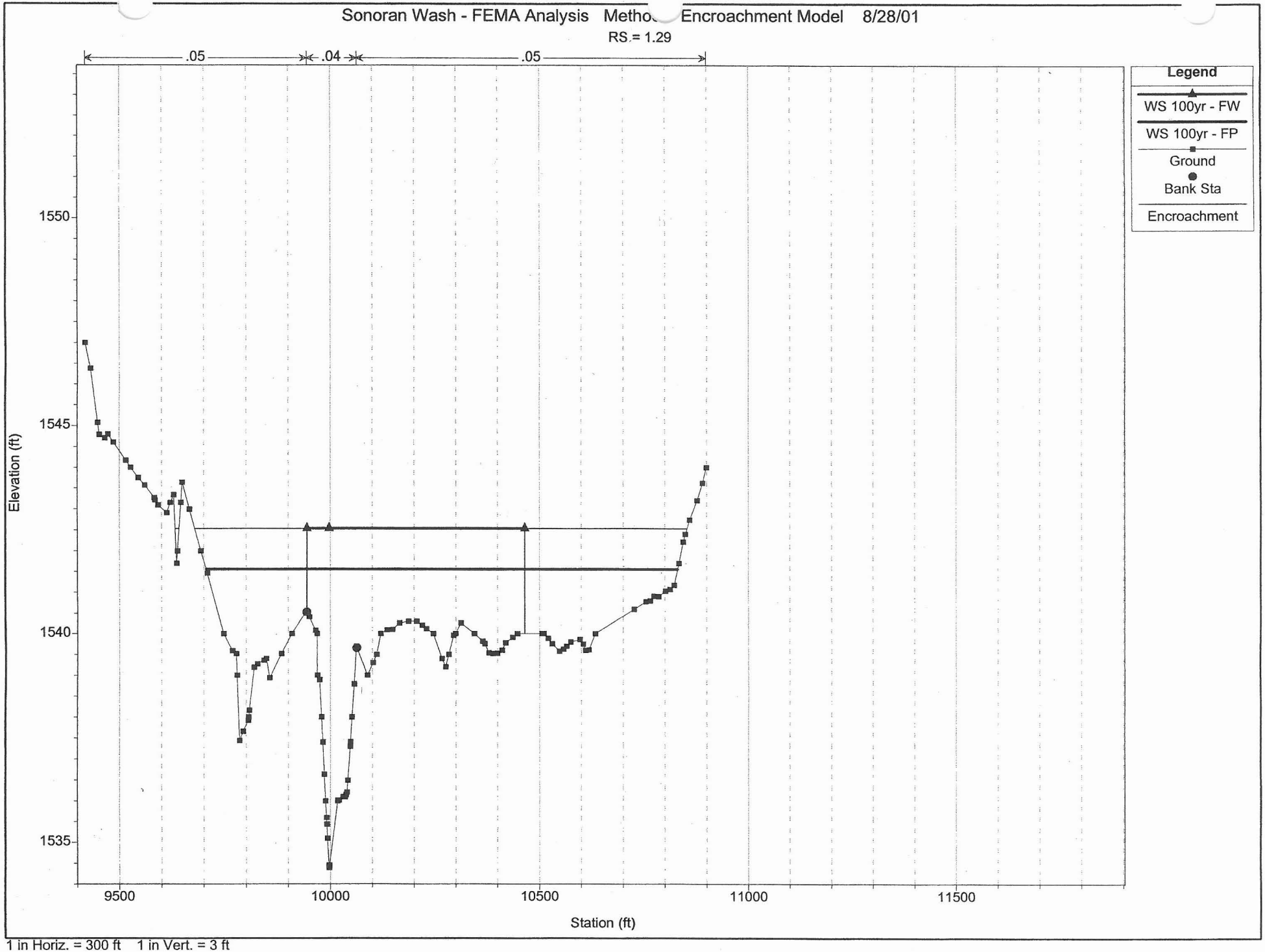

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.00
.08
.08
.037
.06
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1545
1540
1535
1530
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

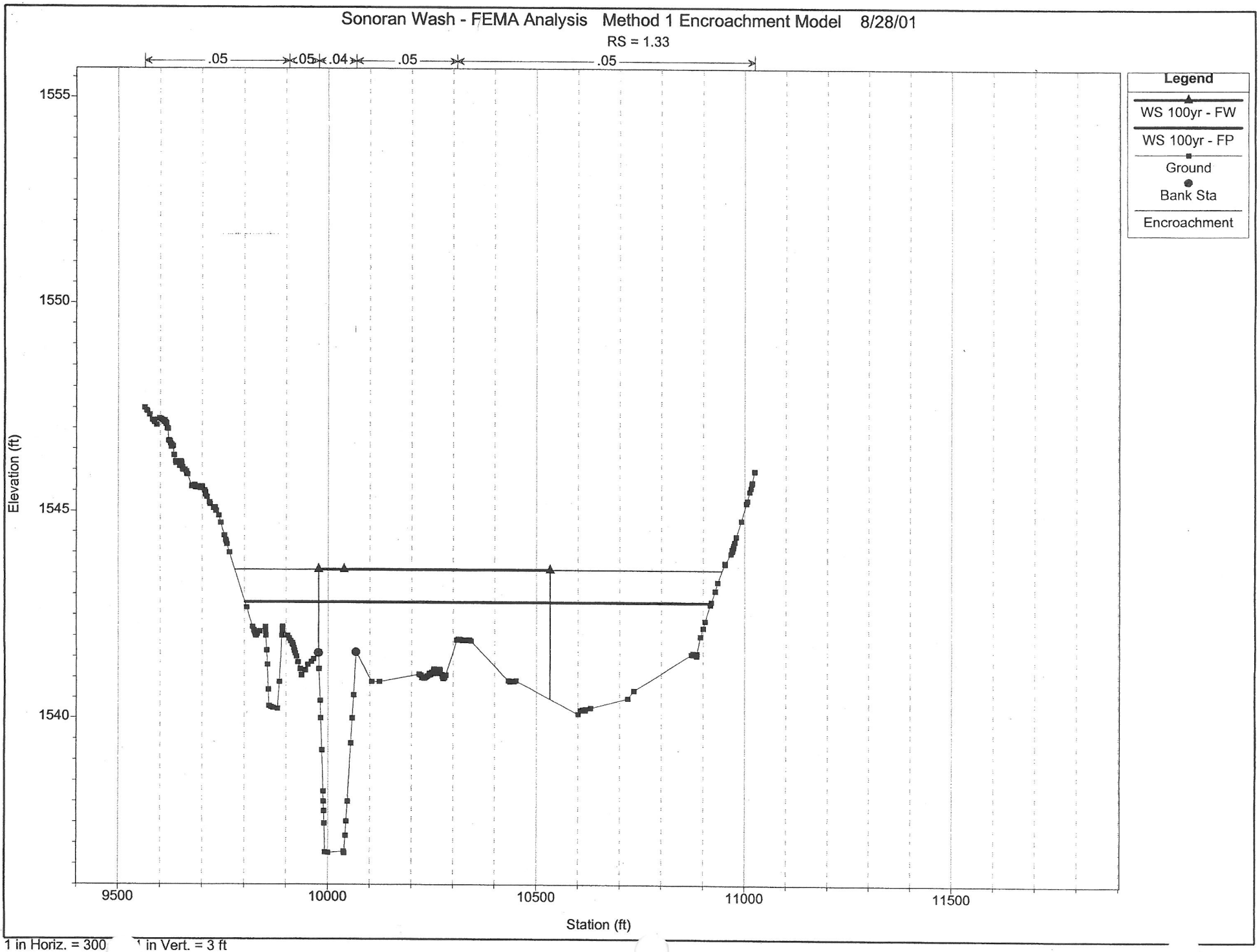

Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01
RS = 1.09
.05
.05
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1545
1540
1535
1530
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

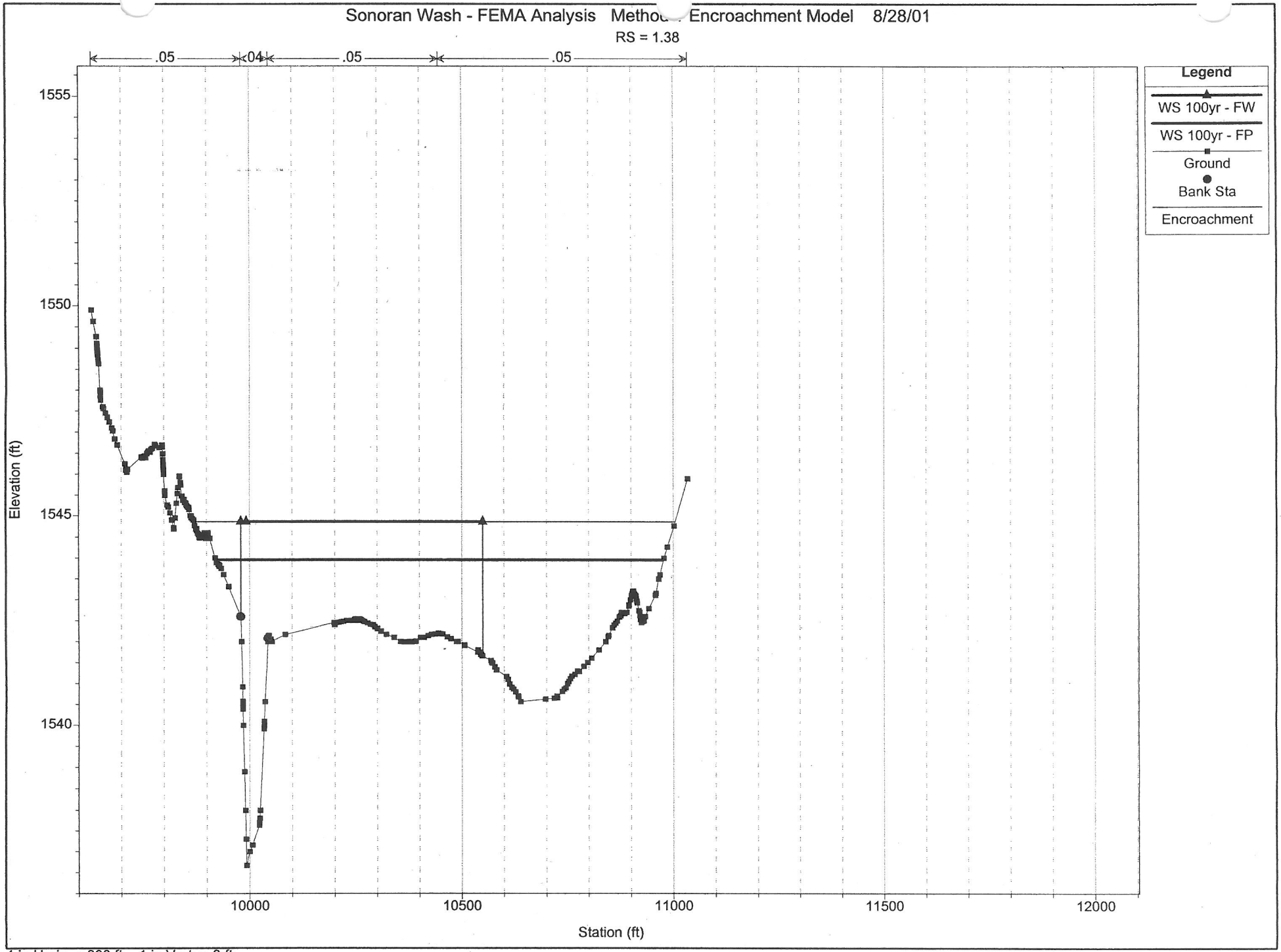

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.15
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1545
1540
1535
1530
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

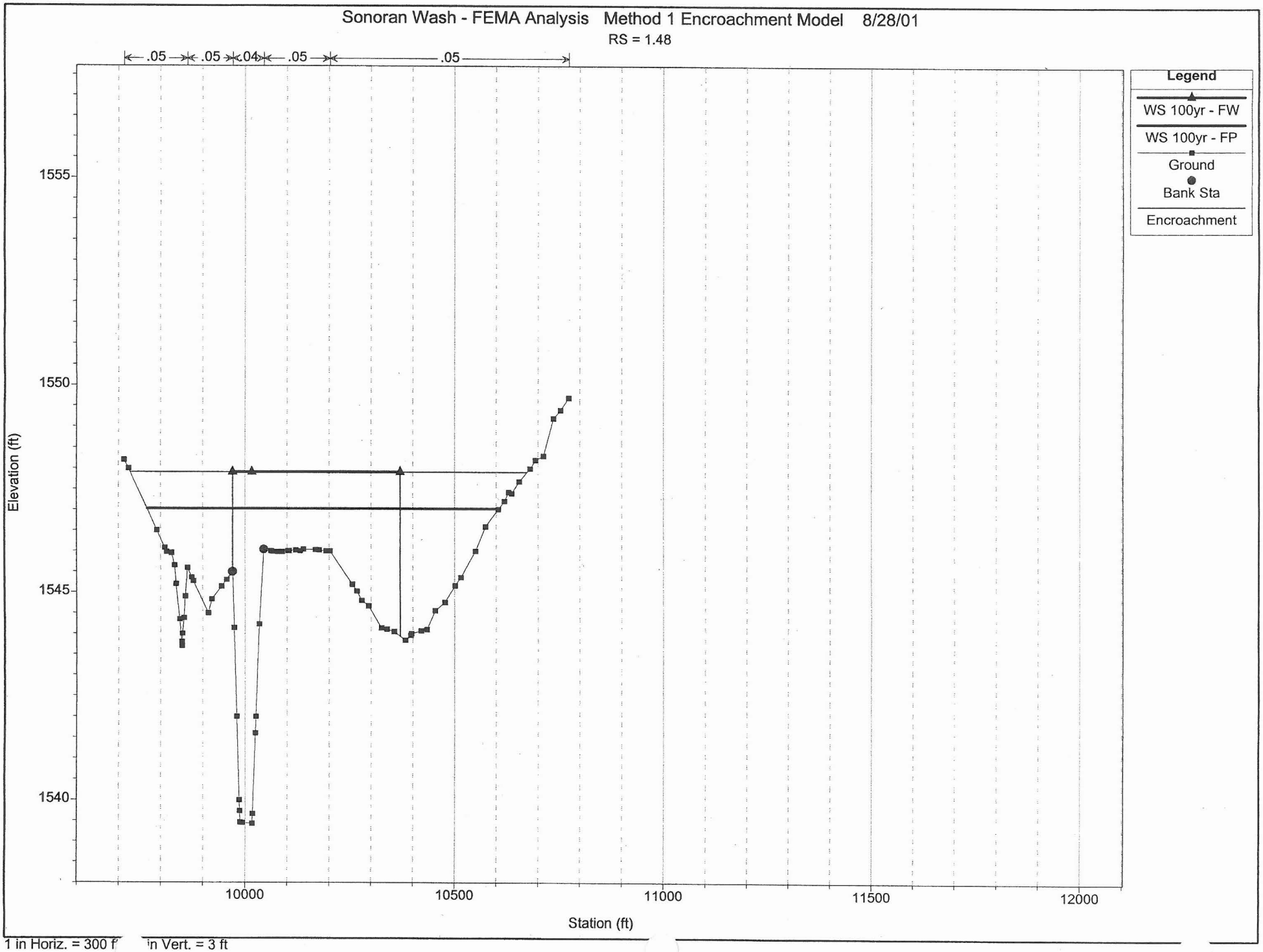

Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01
RS = 1.21
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1545
1540
1535
1530
Elevation (ft)
9000
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

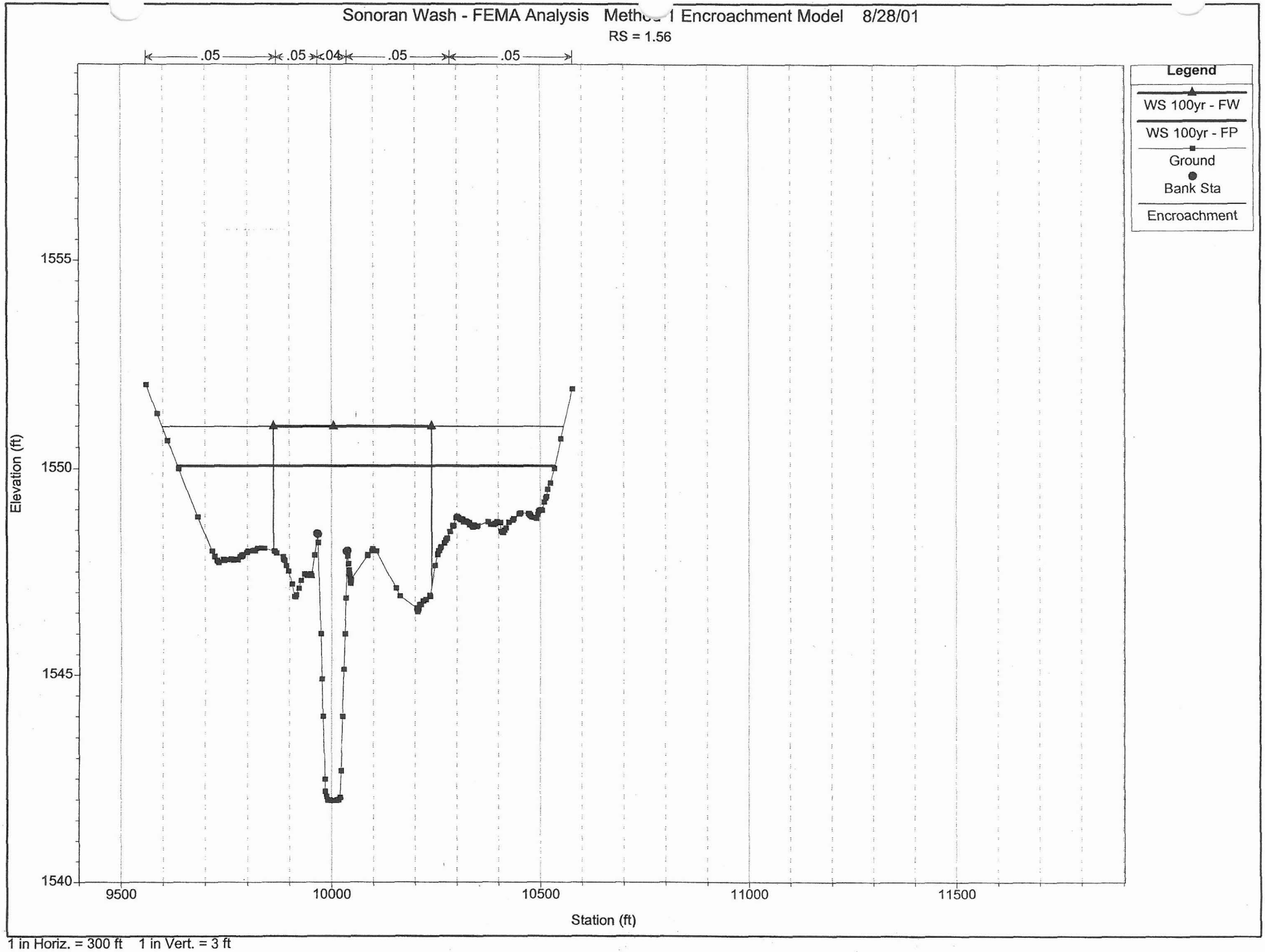

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.25
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Ineff
Bank Sta
Encroachment
1545
1540
1535
1530
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

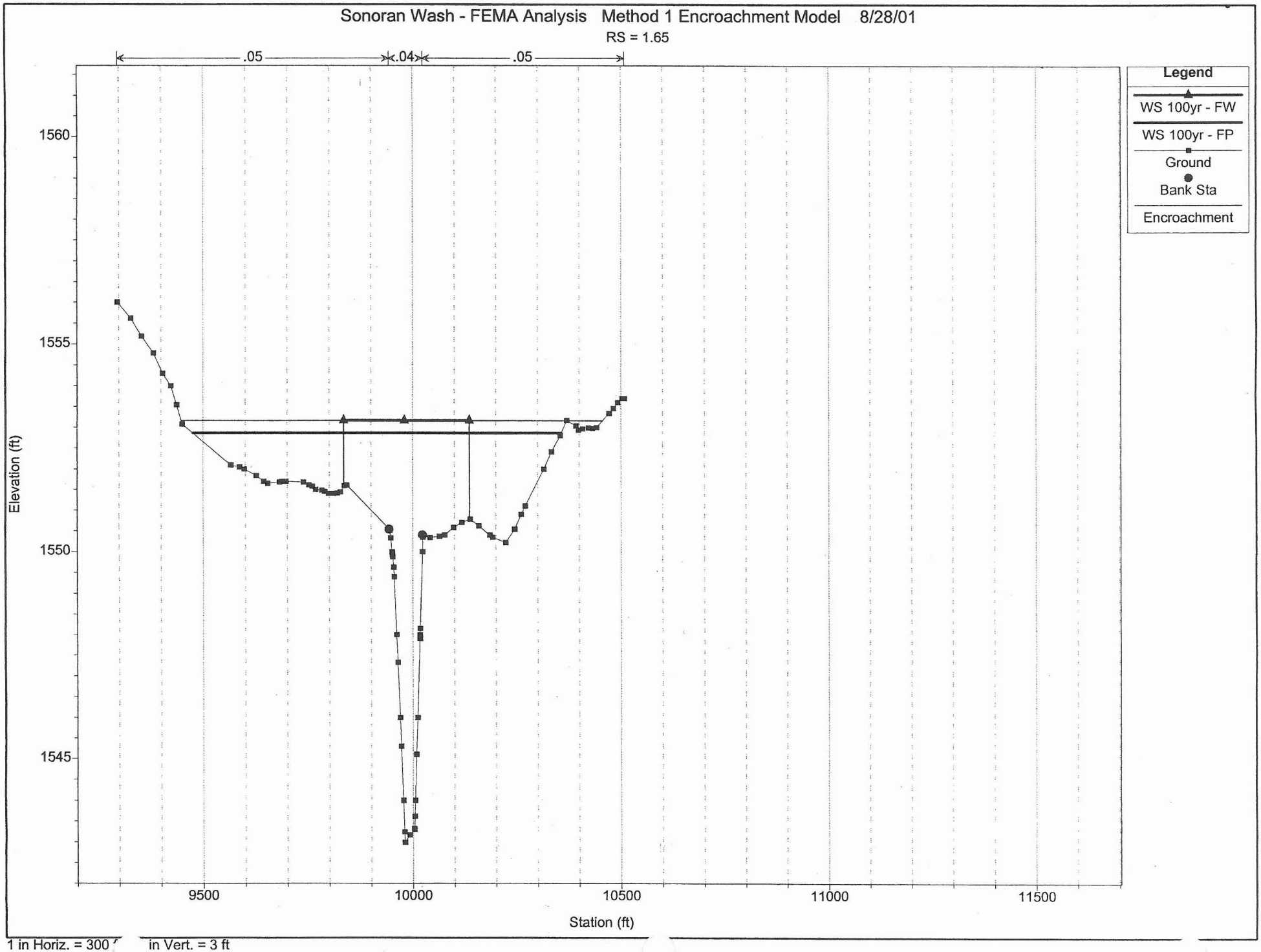

Sonoran Wash - FEMA Analysis Metho Encroachment Model 8/28/01
RS = 1.29
.05
.04
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1550
1545
1540
1535
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

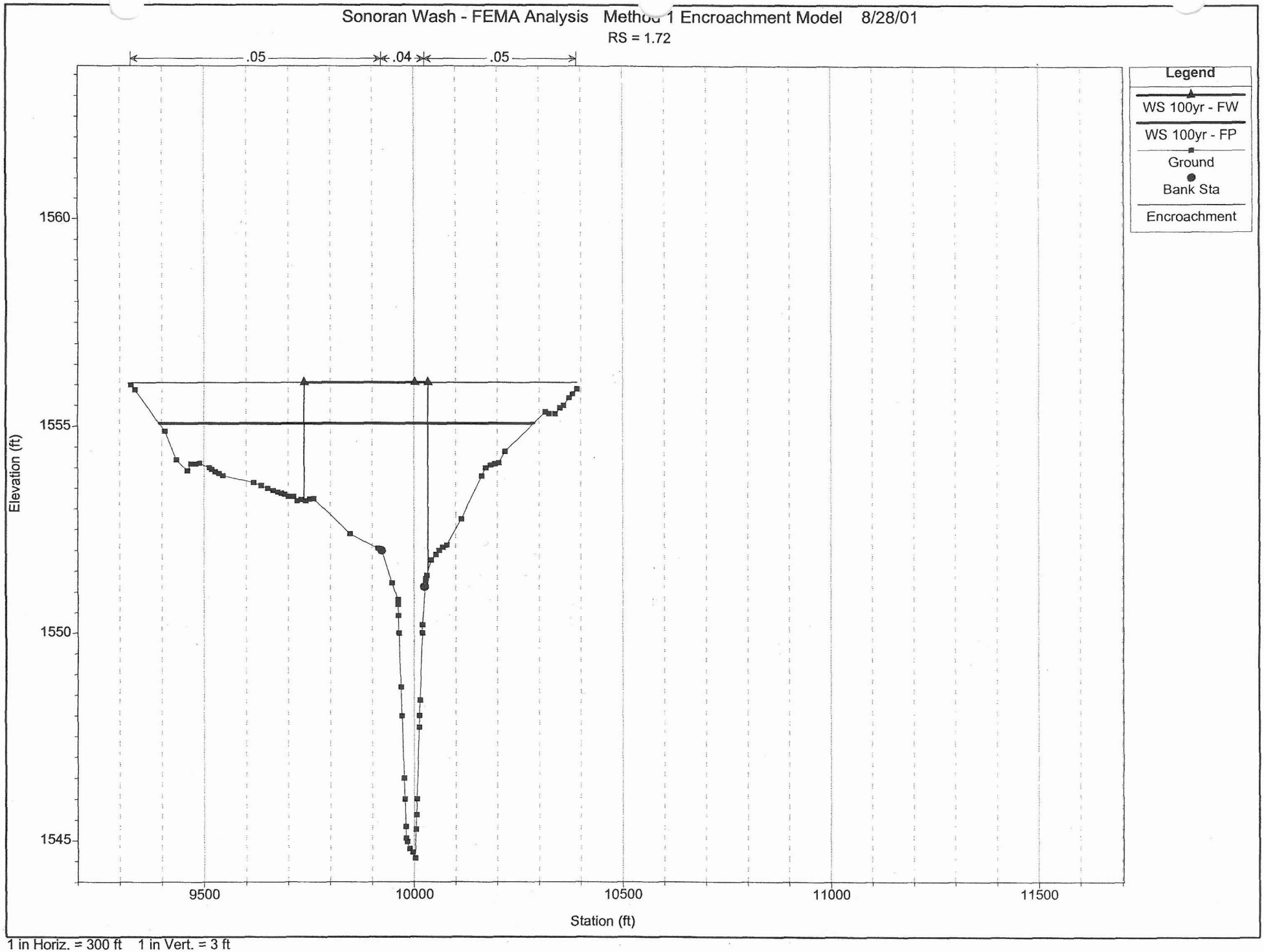

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.33
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1555
1550
1545
1540
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300
1 in Vert. = 3 ft

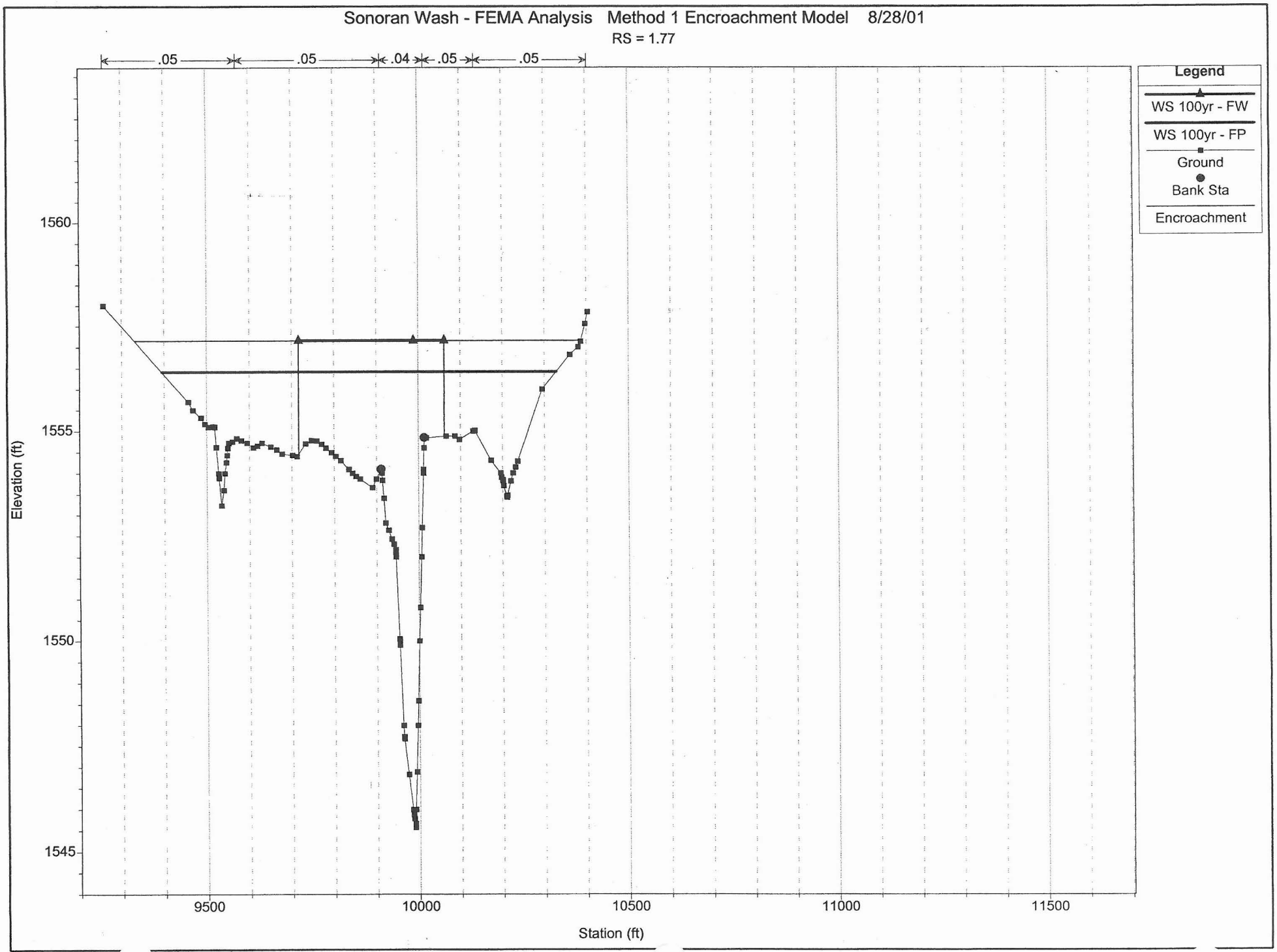

Sonoran Wash - FEMA Analysis Method: Encroachment Model 8/28/01
RS = 1.38
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1555
1550
1545
1540
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

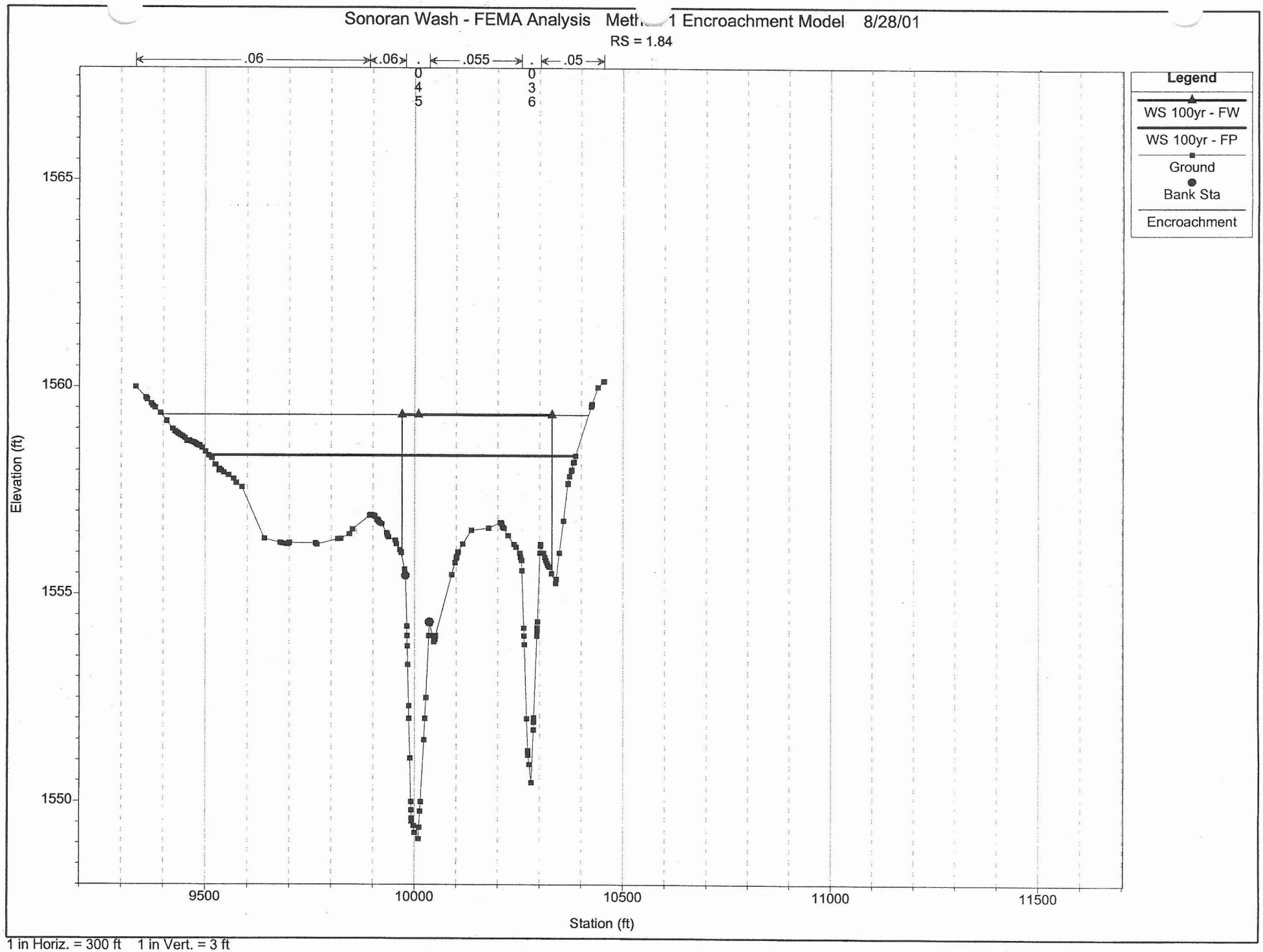

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.48
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1555
1550
1545
1540
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 f
in Vert. = 3 ft

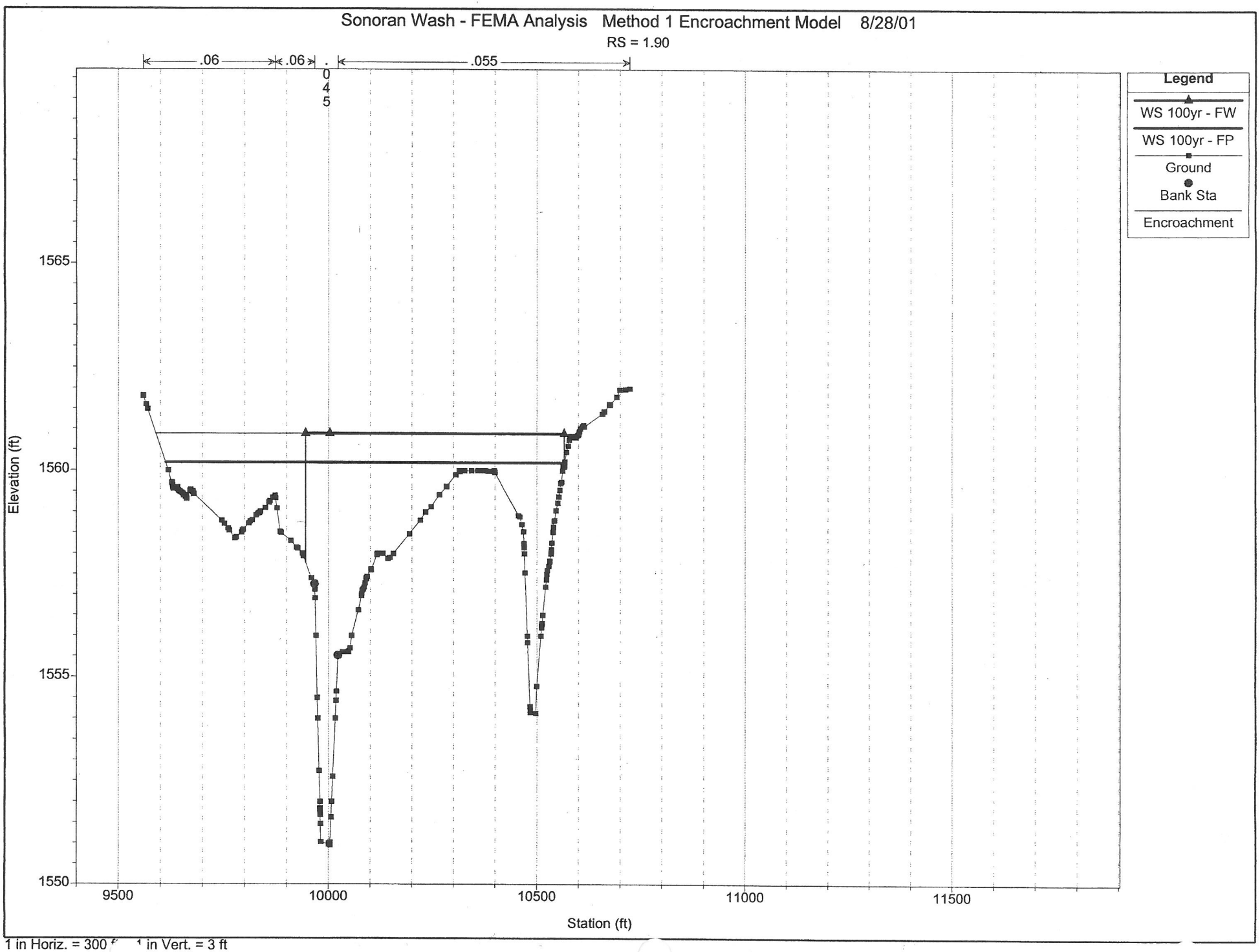

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.56
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1555
1550
1545
1540
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

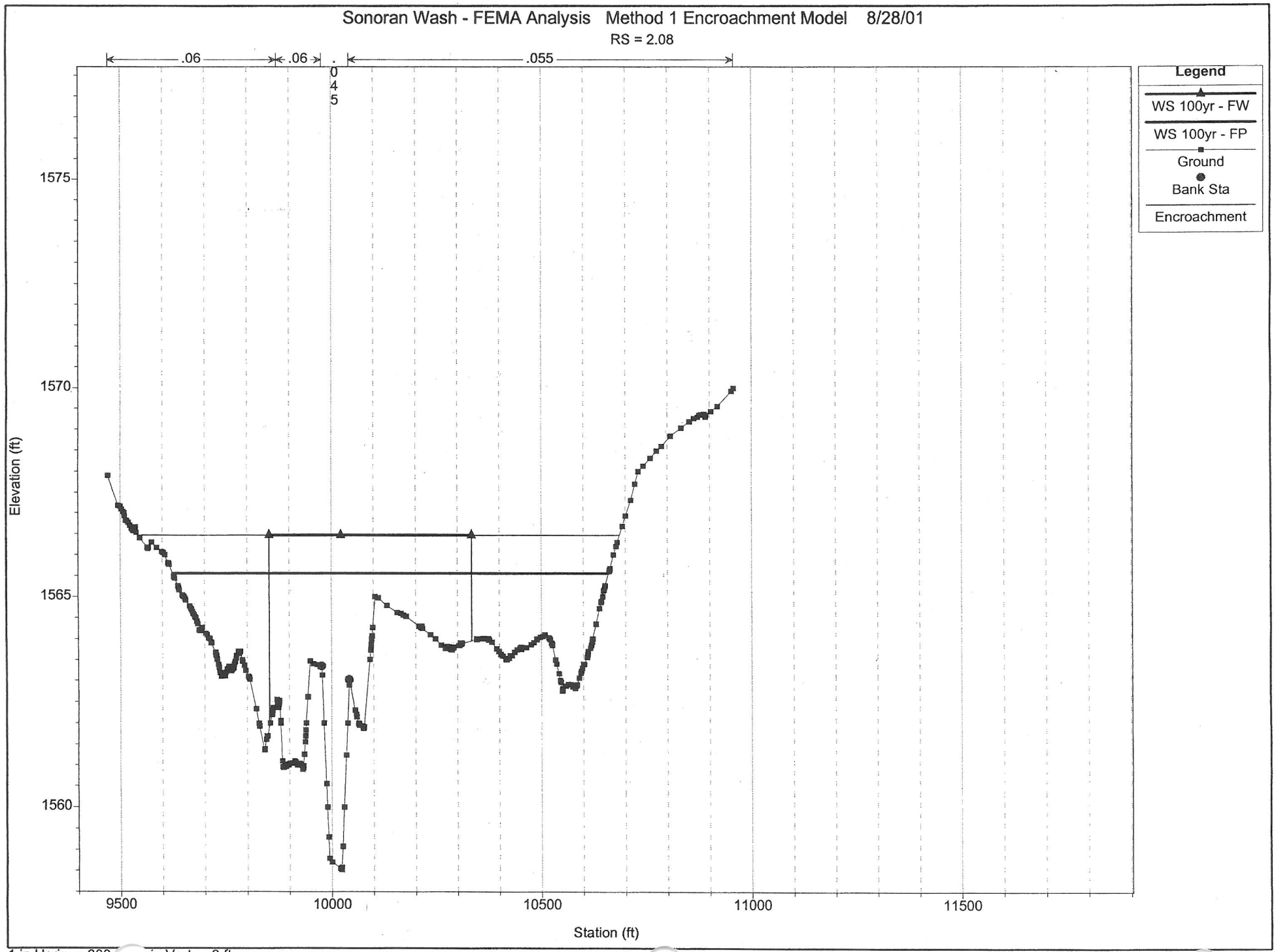

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.65
.05
.04
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1560
1555
1550
1545
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

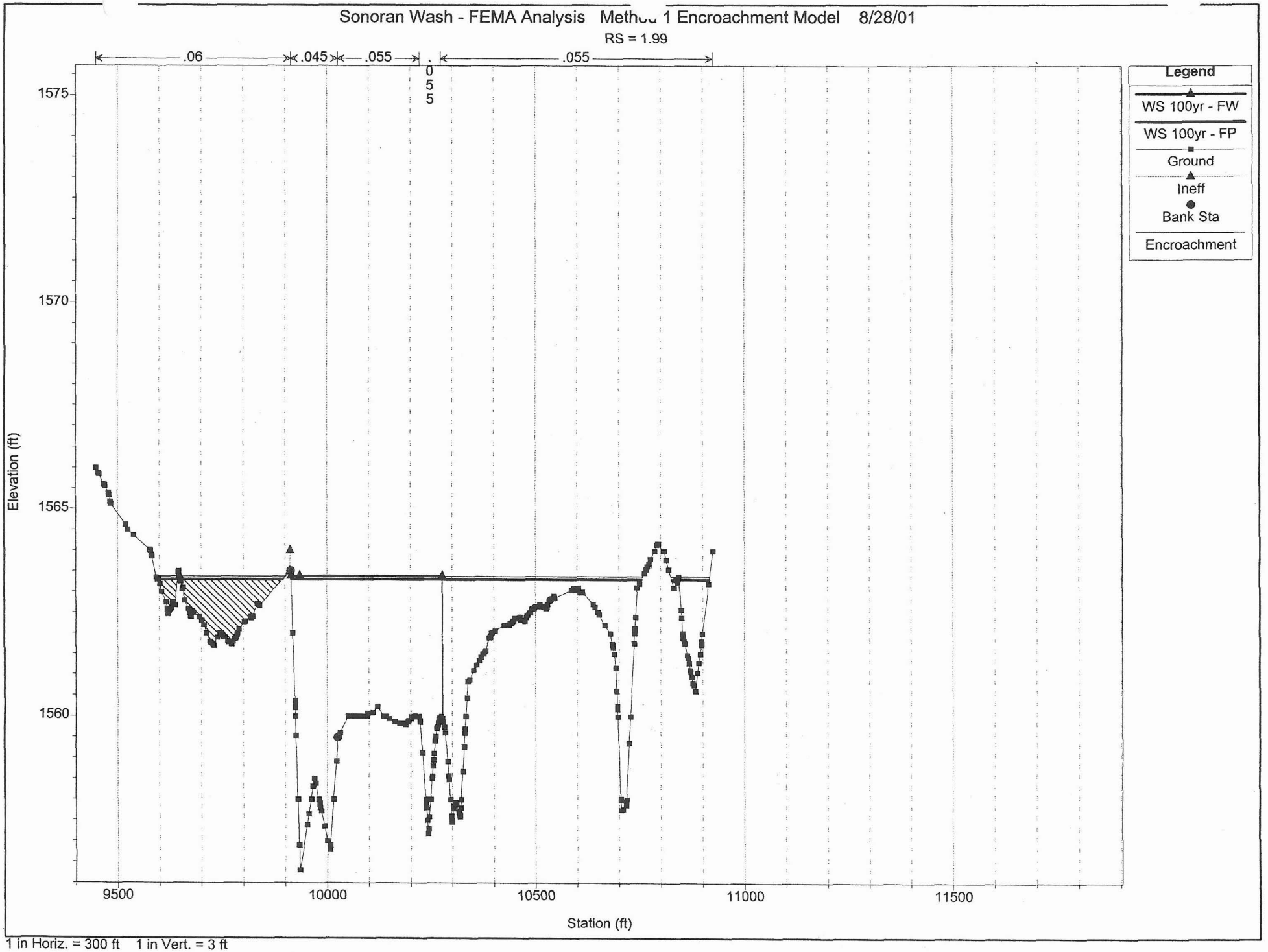

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.72
.05
.04
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1560
1555
1550
1545
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

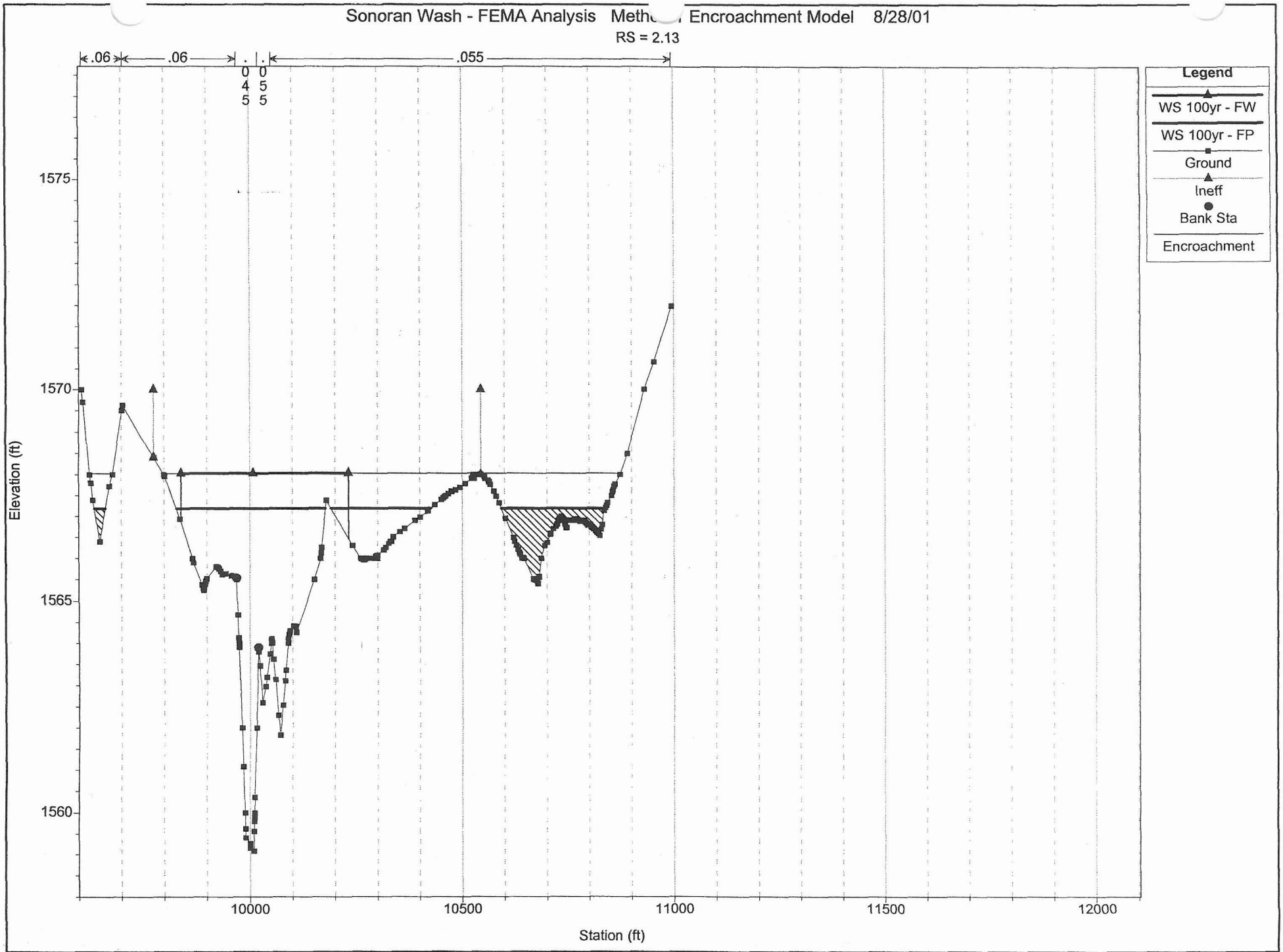

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.77
.05
.05
.04
.05
.05
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1560
1555
1550
1545
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

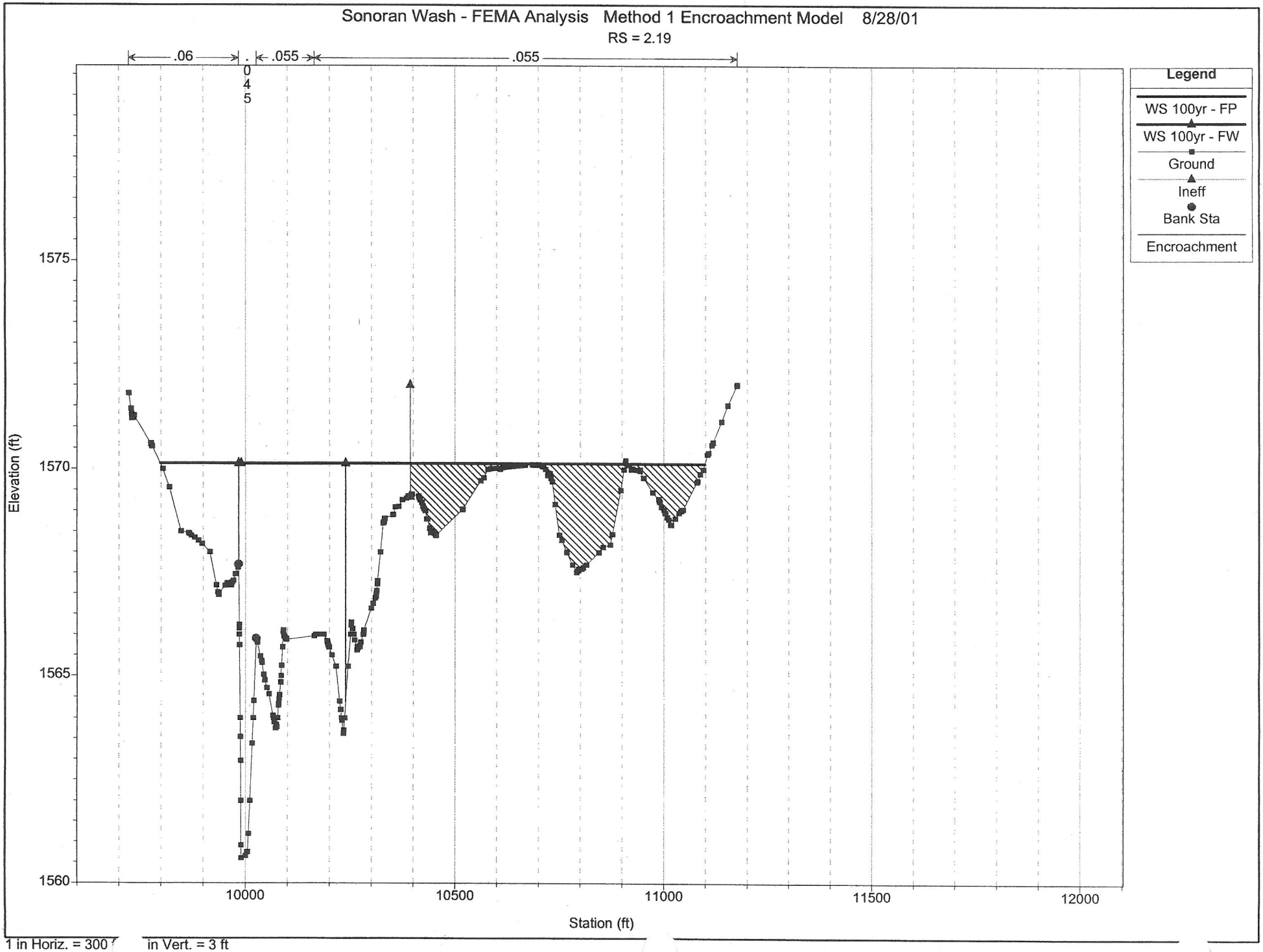

Sonoran Wash - FEMA Analysis Meth 1 Encroachment Model 8/28/01
RS = 1.84
.06
.06
.055
.05
045
036
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1565
1560
1555
1550
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.90
.06
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1565
1560
1555
1550
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft
1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.08
.06
.06
.055
045
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1575
1570
1565
1560
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

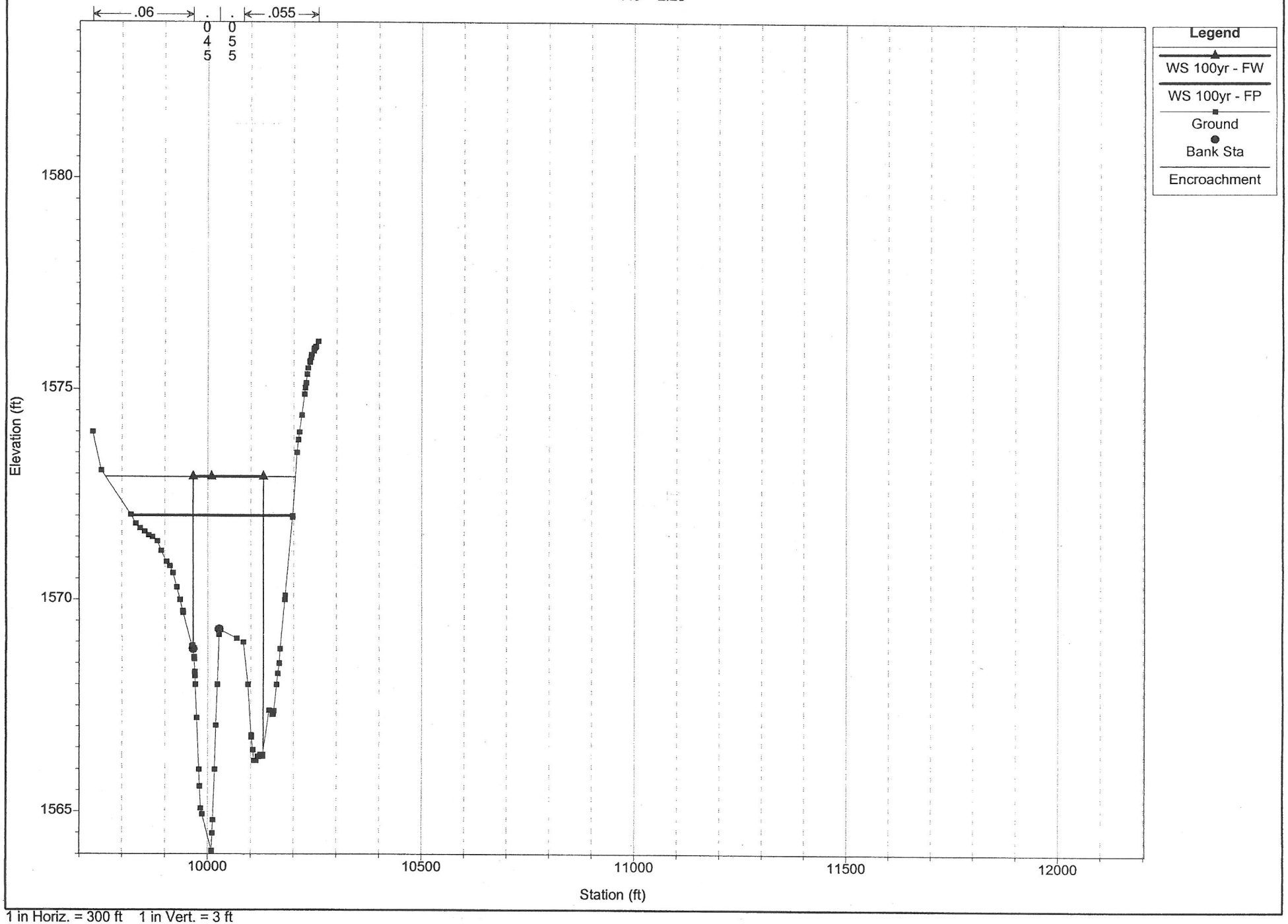

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 1.99
.06
.045
.055
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Ineff
Bank Sta
Encroachment
1575
1570
1565
1560
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Meth Encroachment Model 8/28/01
RS = 2.13
.06
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Ineff
Bank Sta
Encroachment
1575
1570
1565
1560
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

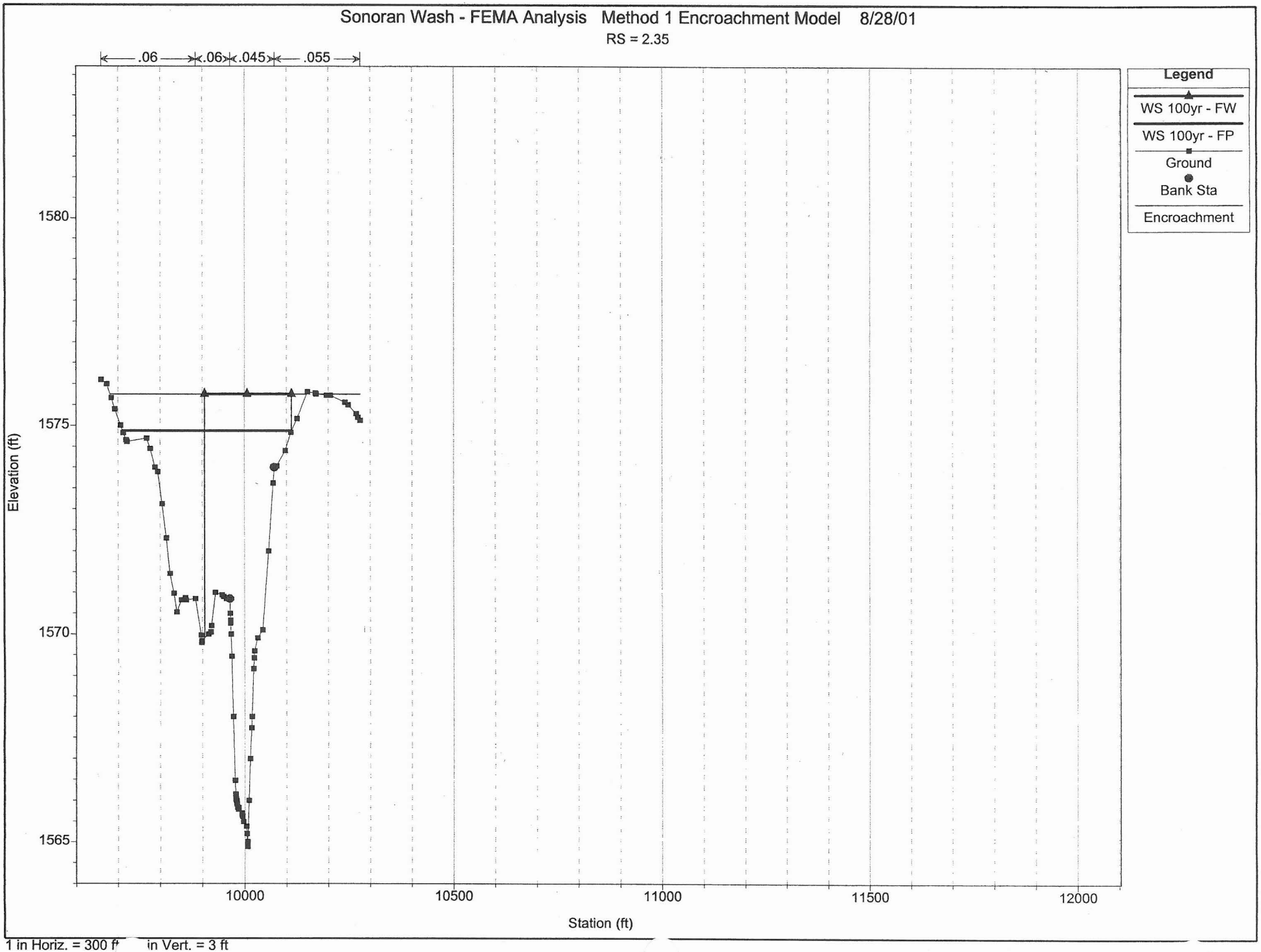

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.19
.06
.055
.055
045
Legend
WS 100yr - FP
WS 100yr - FW
Ground
Ineff
Bank Sta
Encroachment
Elevation (ft)
1575
1570
1565
1560
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

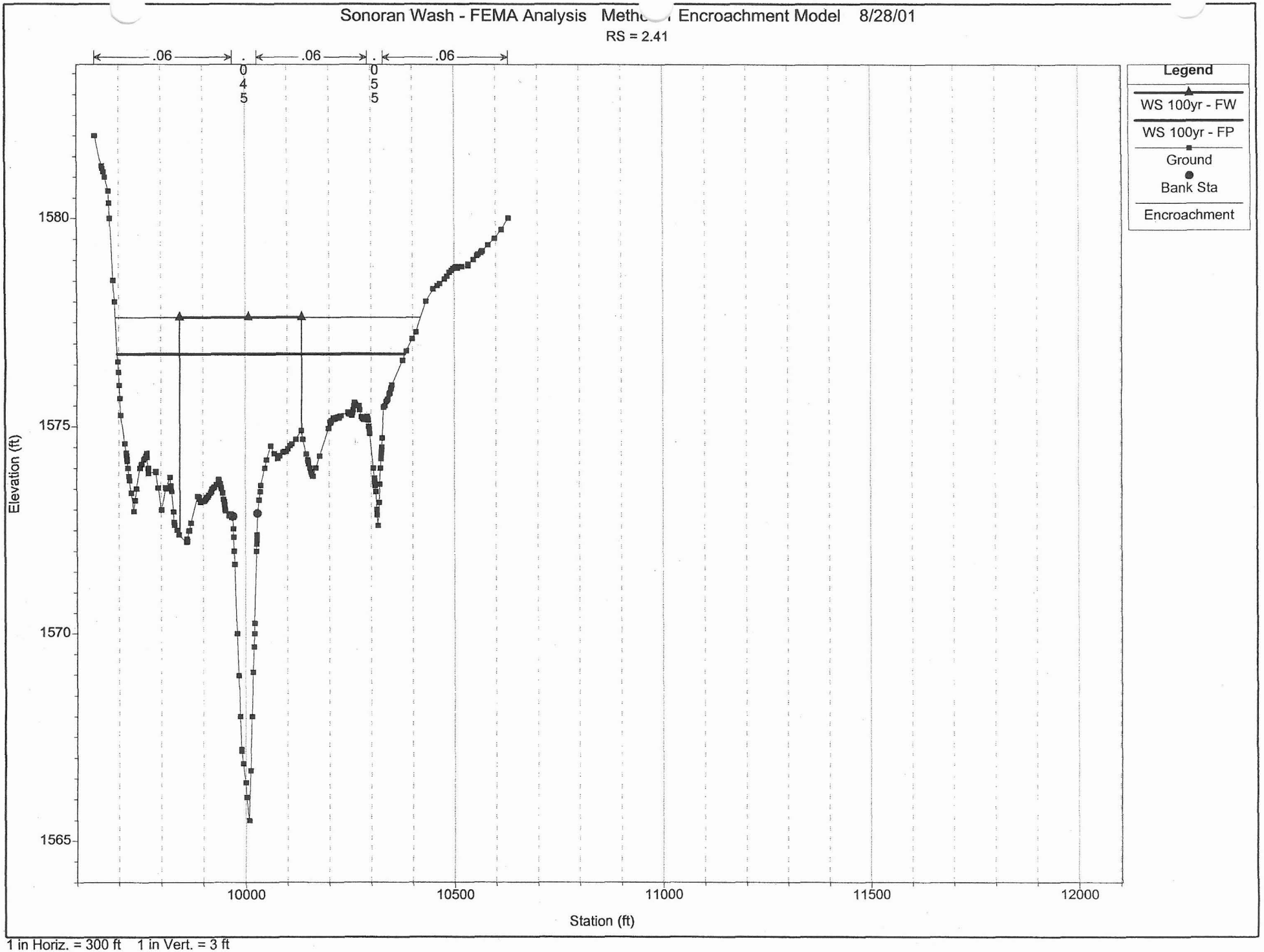
Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01

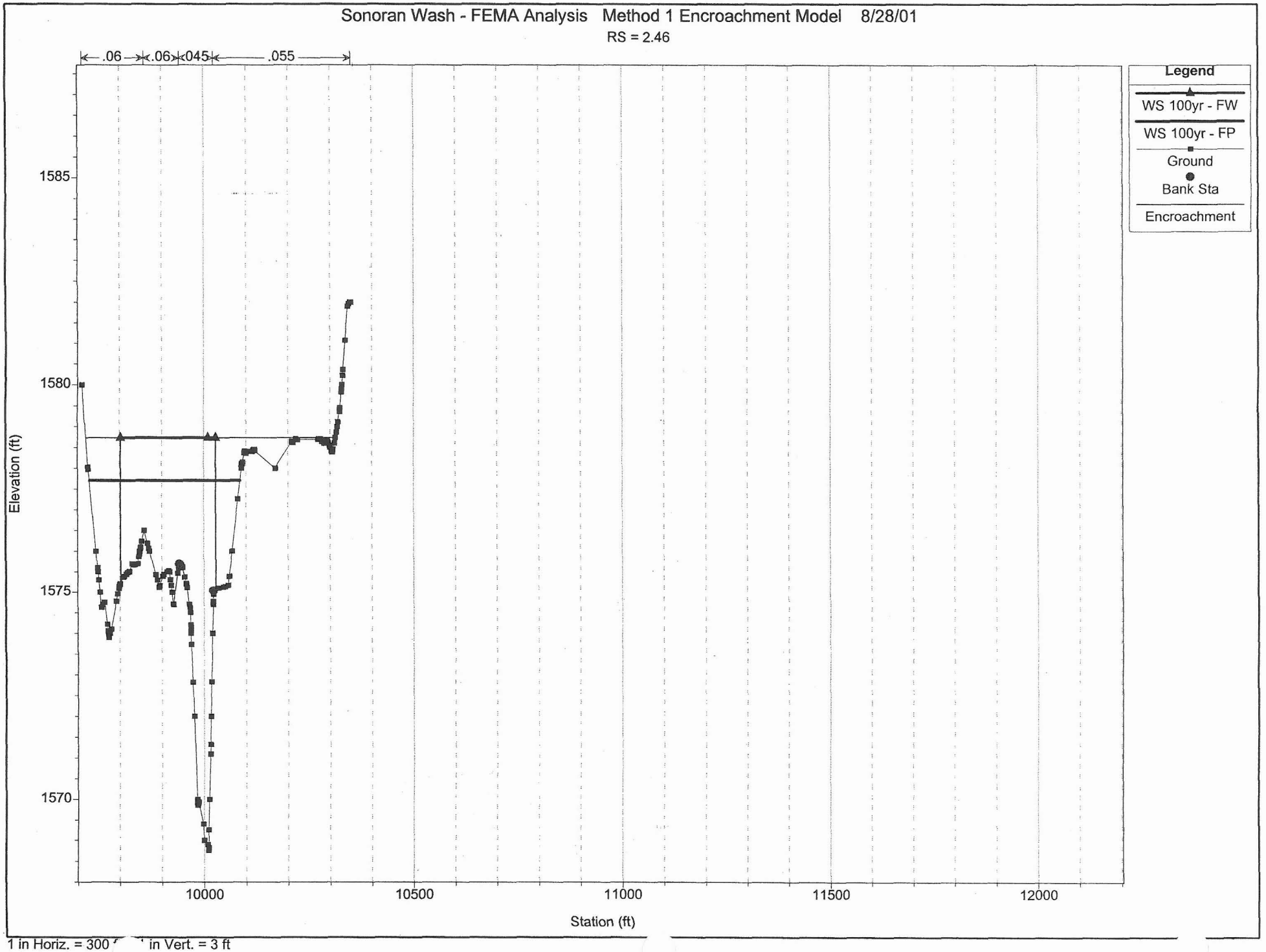
RS = 2.28

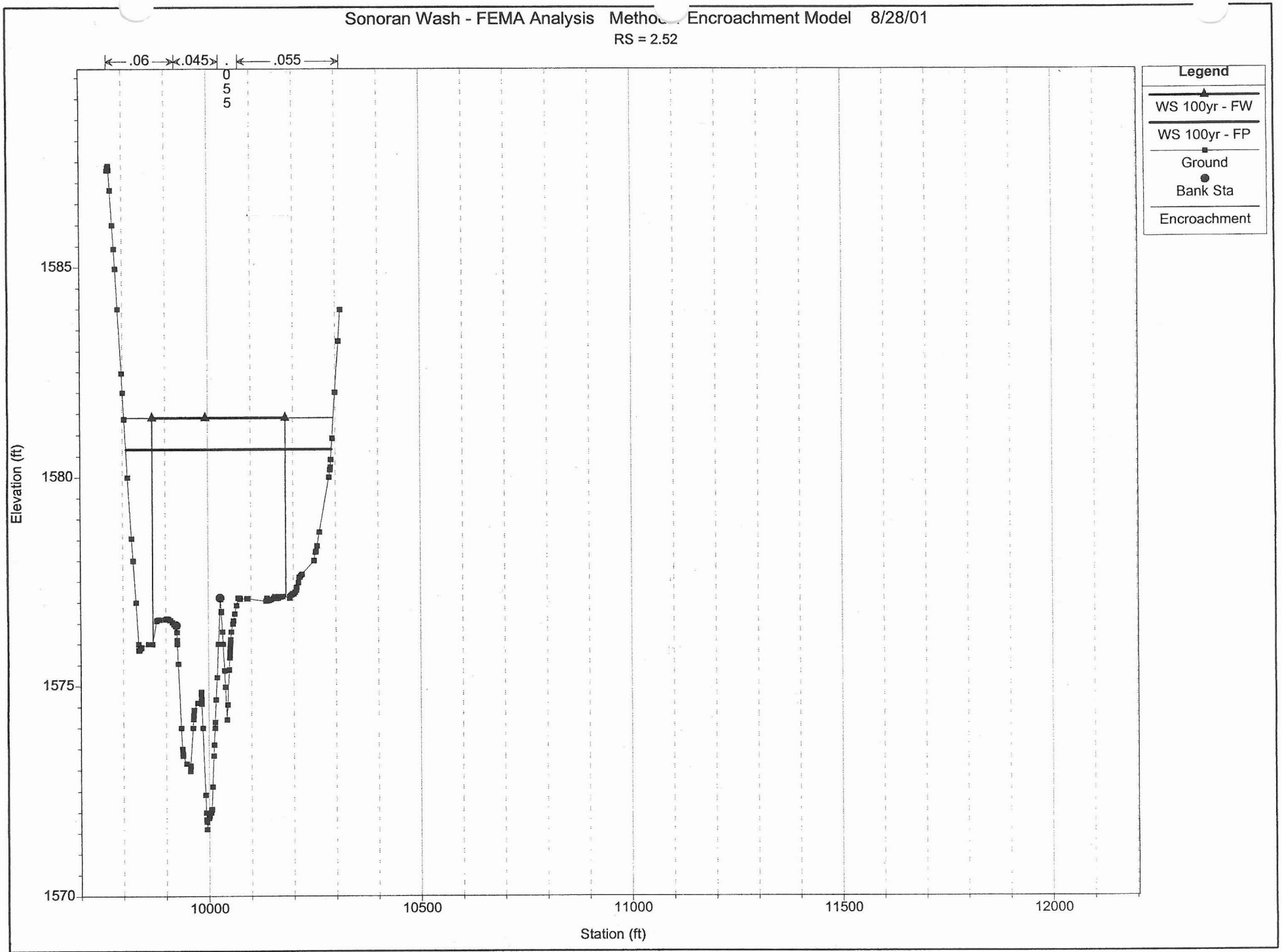


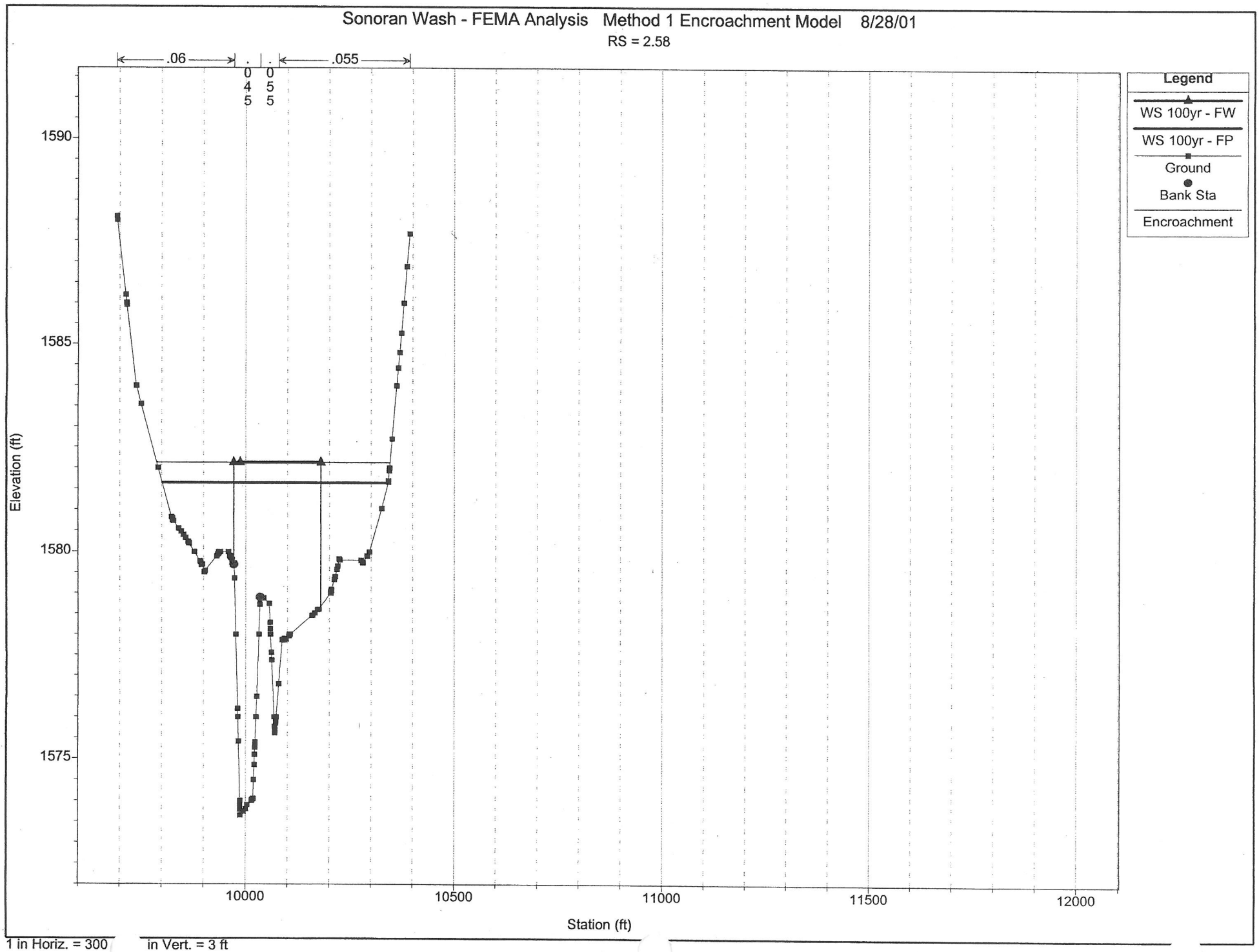
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.35
.06
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1580
1575
1570
1565
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft
in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method - Encroachment Model 8/28/01
RS = 2.41
.06
.06
.06
0.045
0.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1580
1575
1570
1565
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

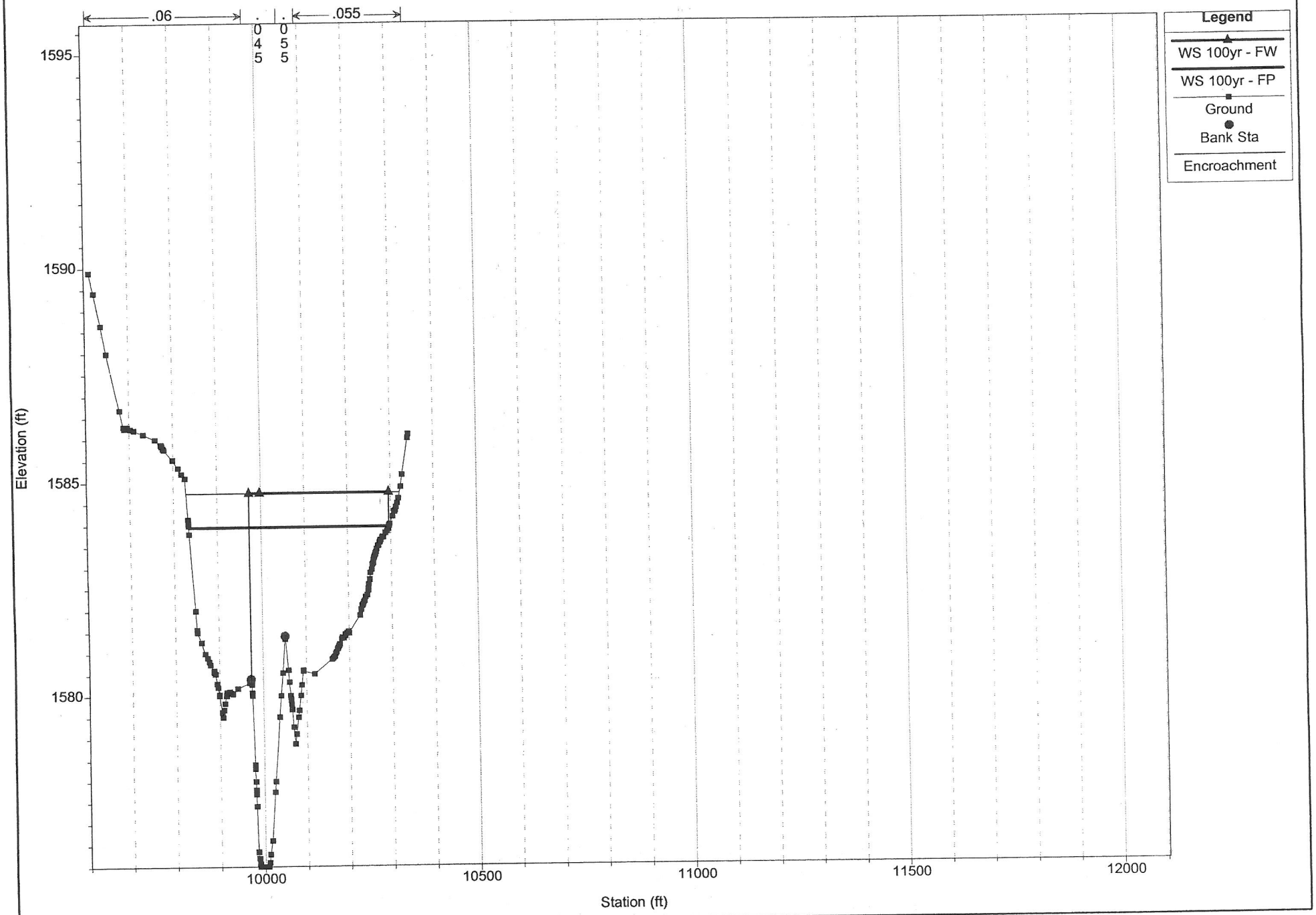

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.46
.06
.06
045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1585
1580
1575
1570
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method: Encroachment Model 8/28/01
RS = 2.52
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1585
1580
1575
1570
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

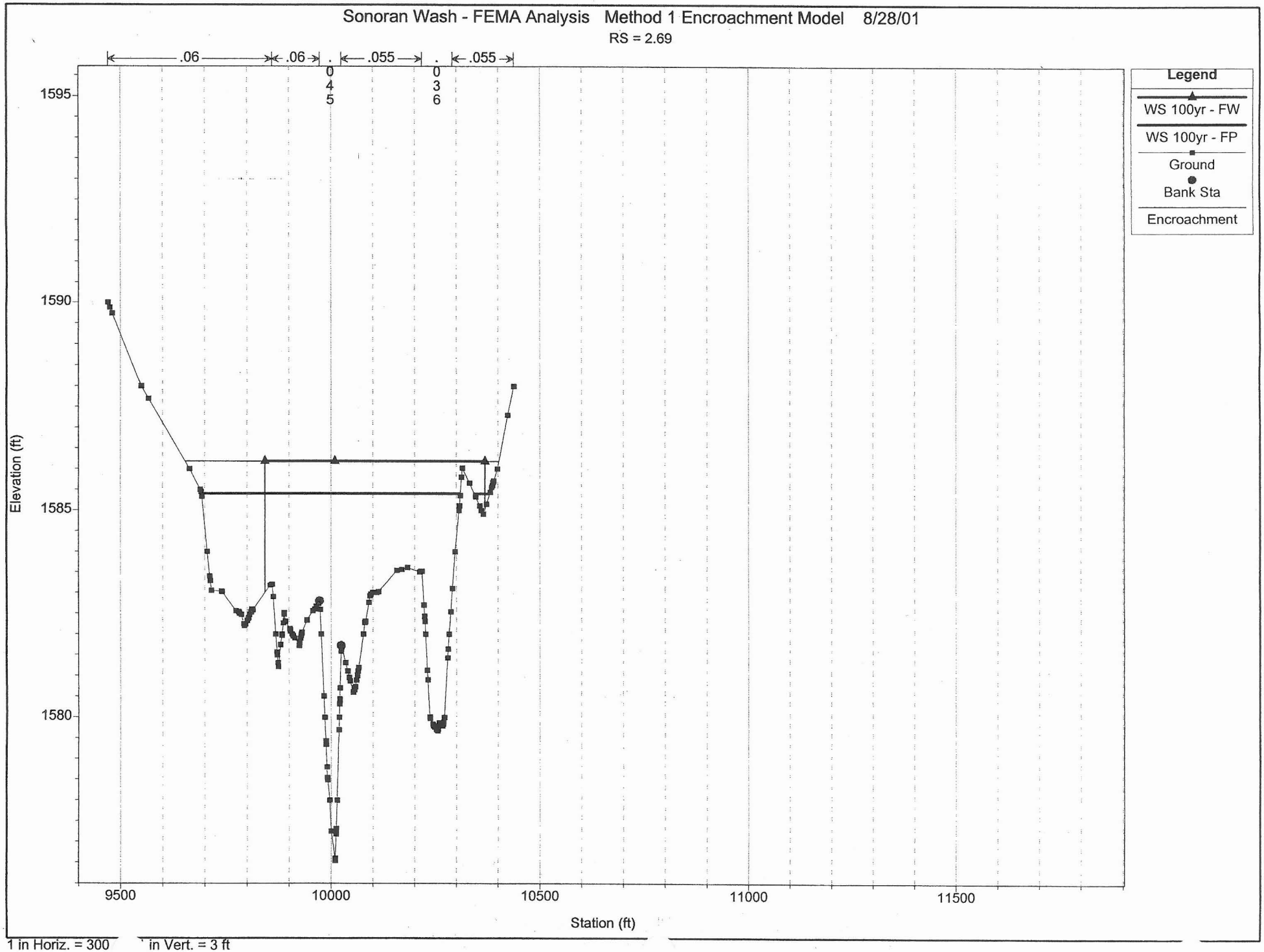

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.58
.06
.055
0 0
4 5
5 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1590
1585
1580
1575
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01

RS = 2.64

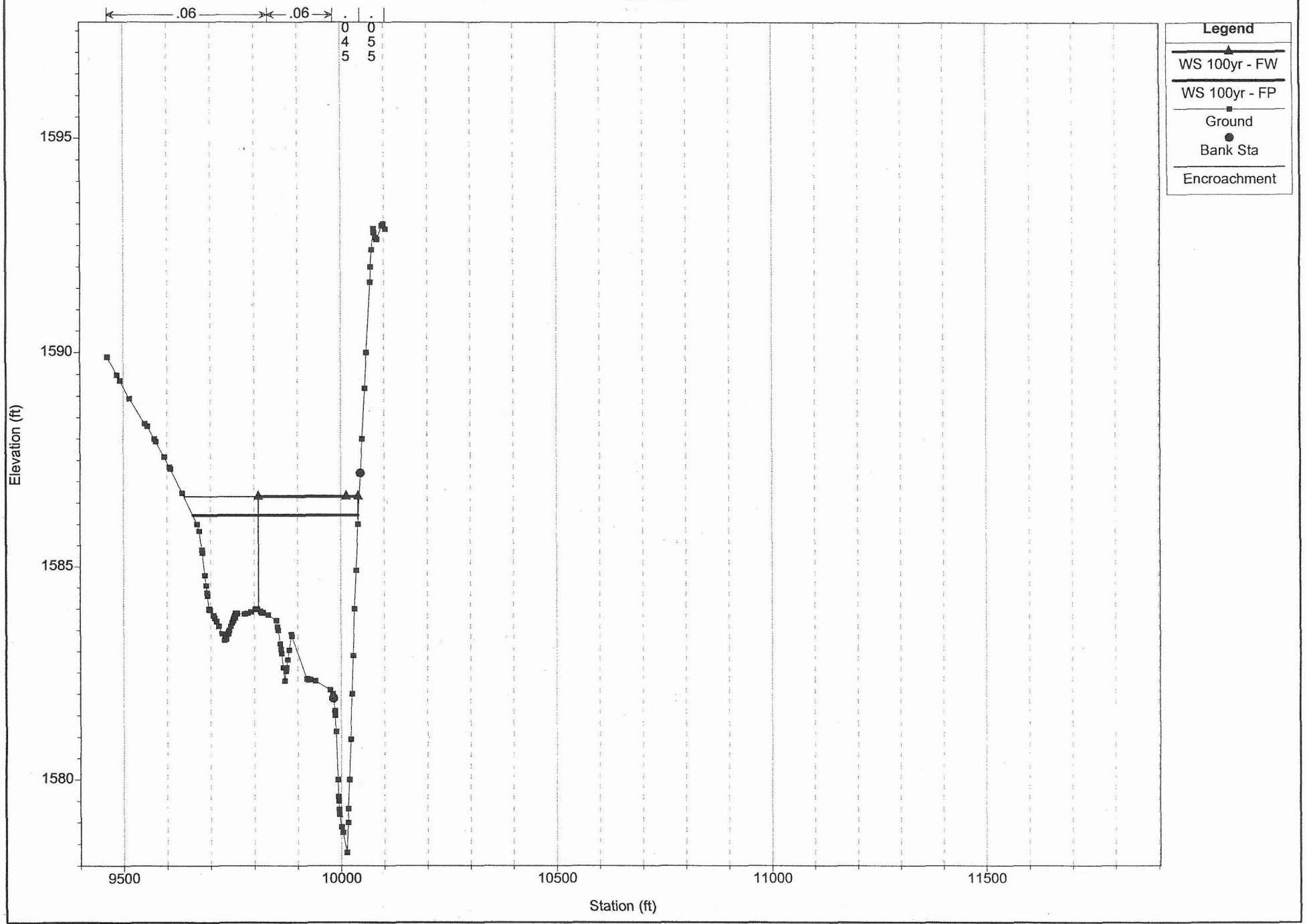


1 in Horiz. = 300 ft 1 in Vert. = 3 ft

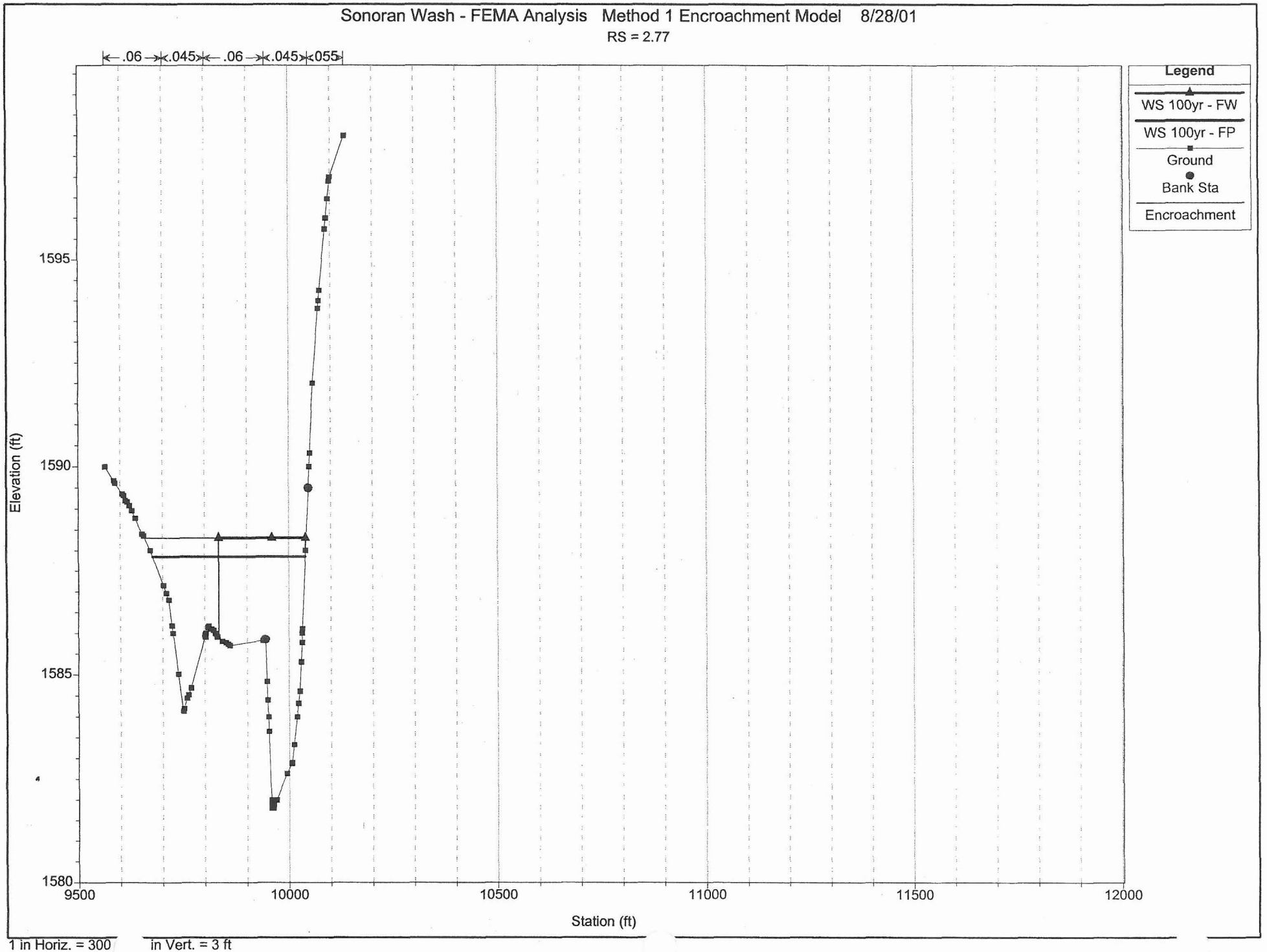

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.69
.06
.06
.055
.055
045
036
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1595
1590
1585
1580
Elevation (ft)
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

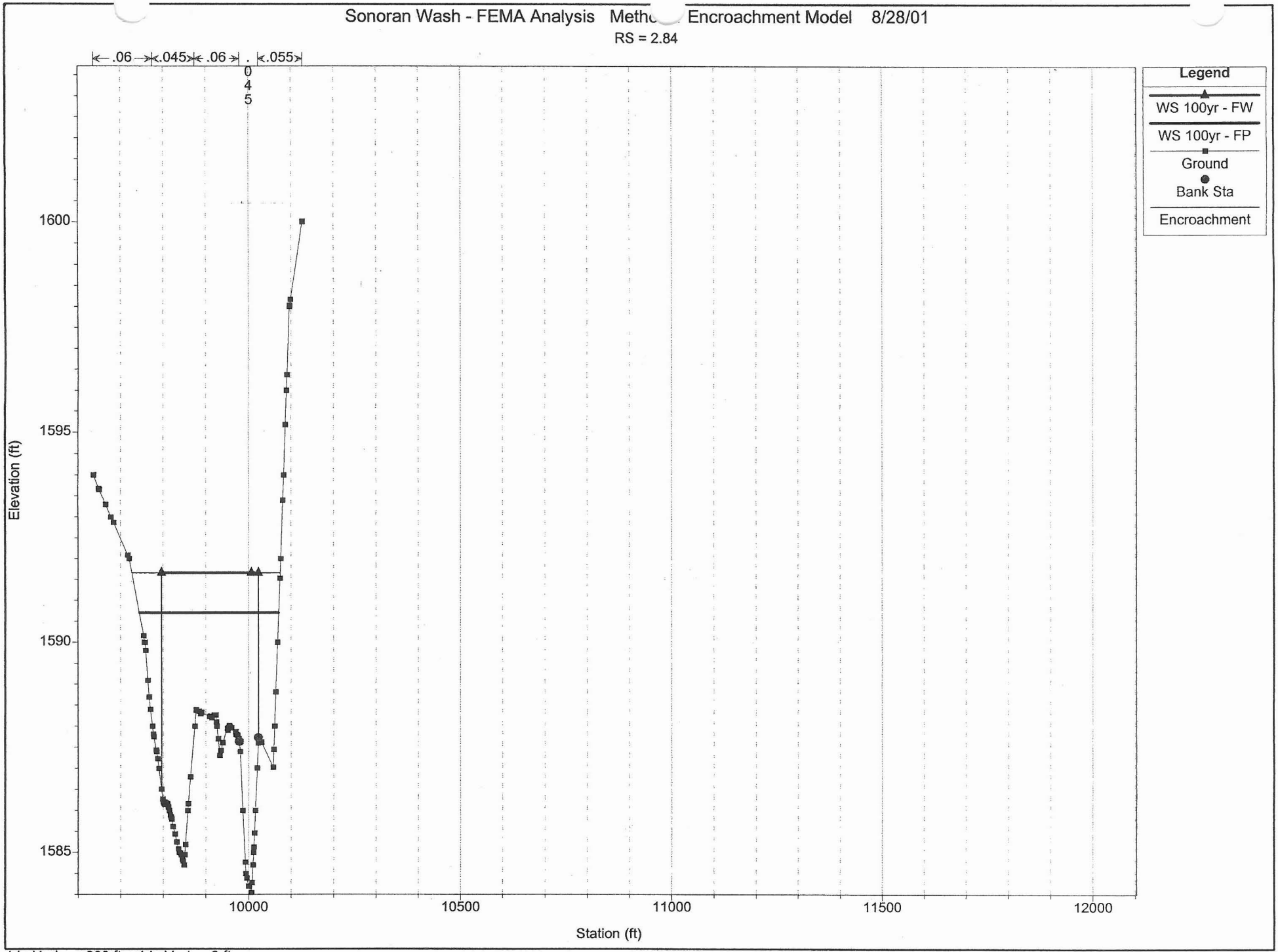
Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01

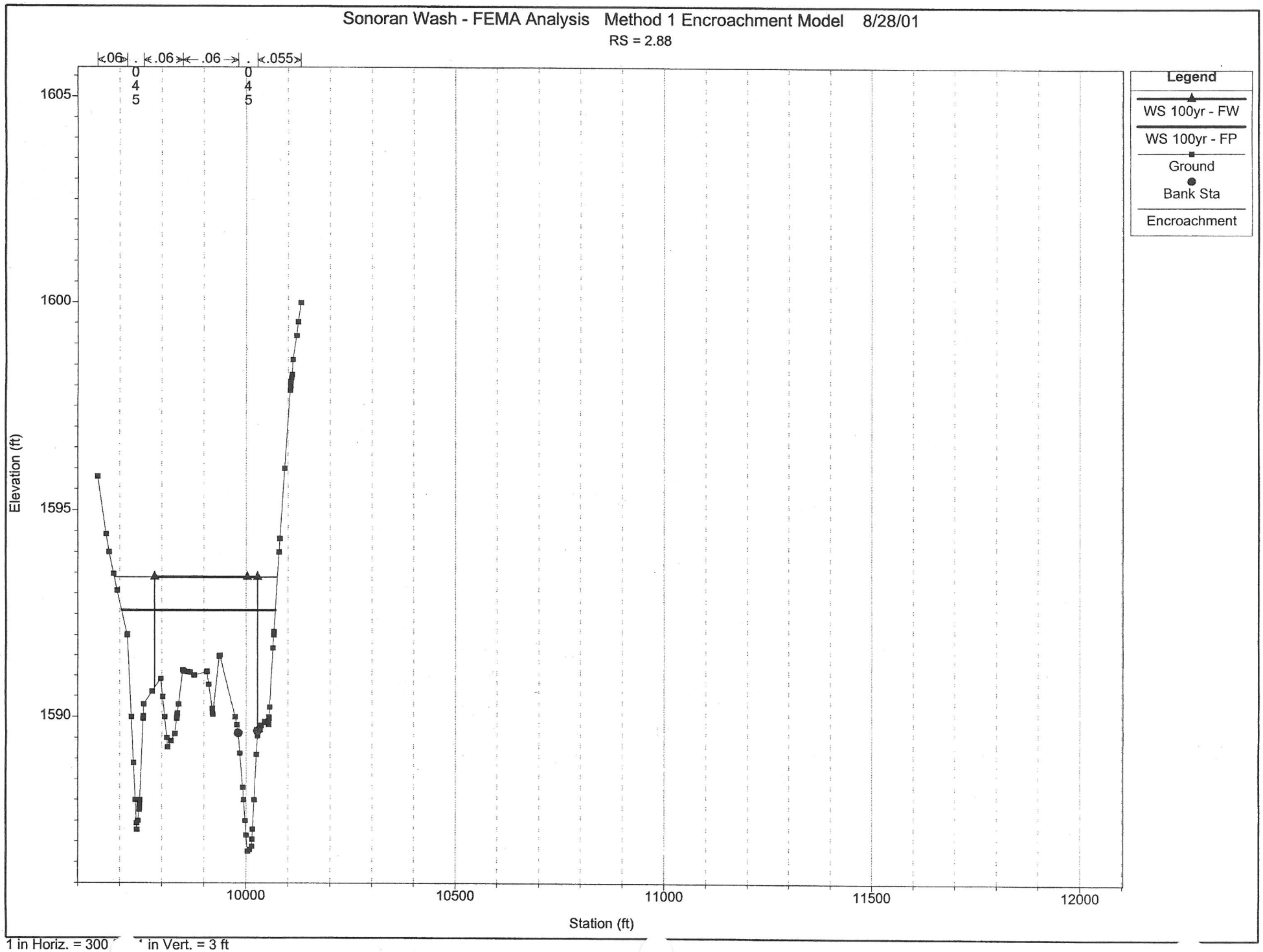
RS = 2.73

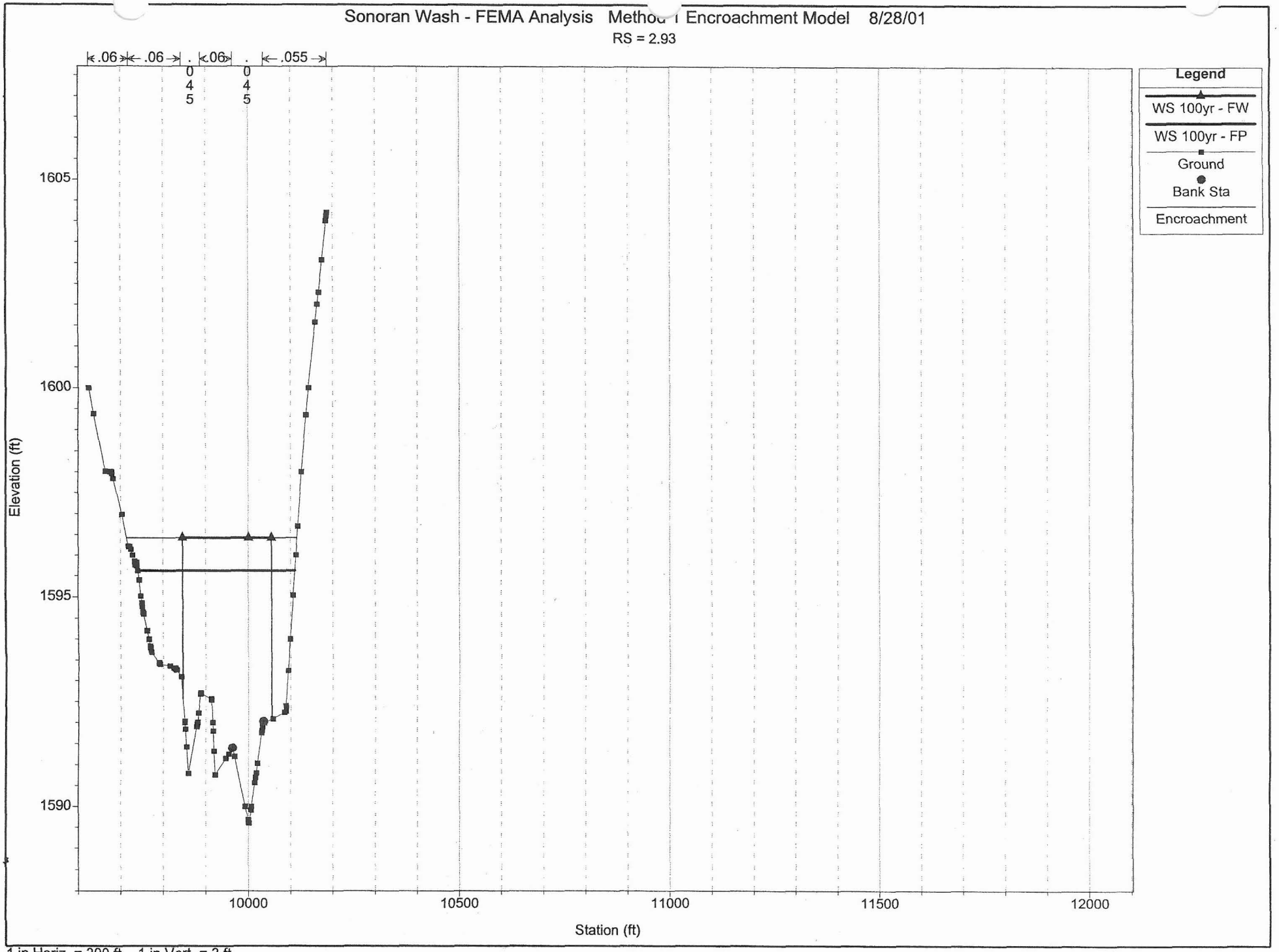


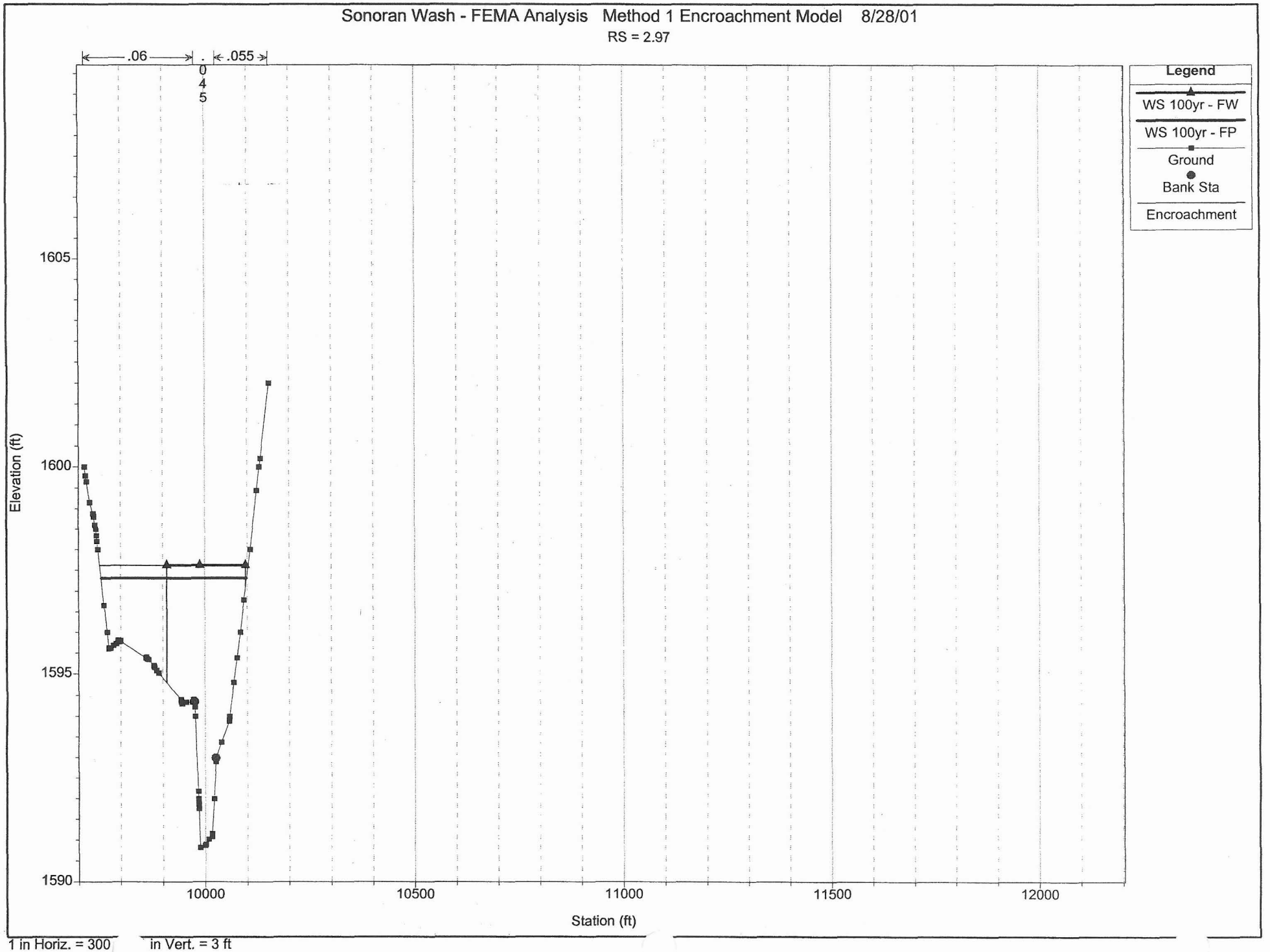
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

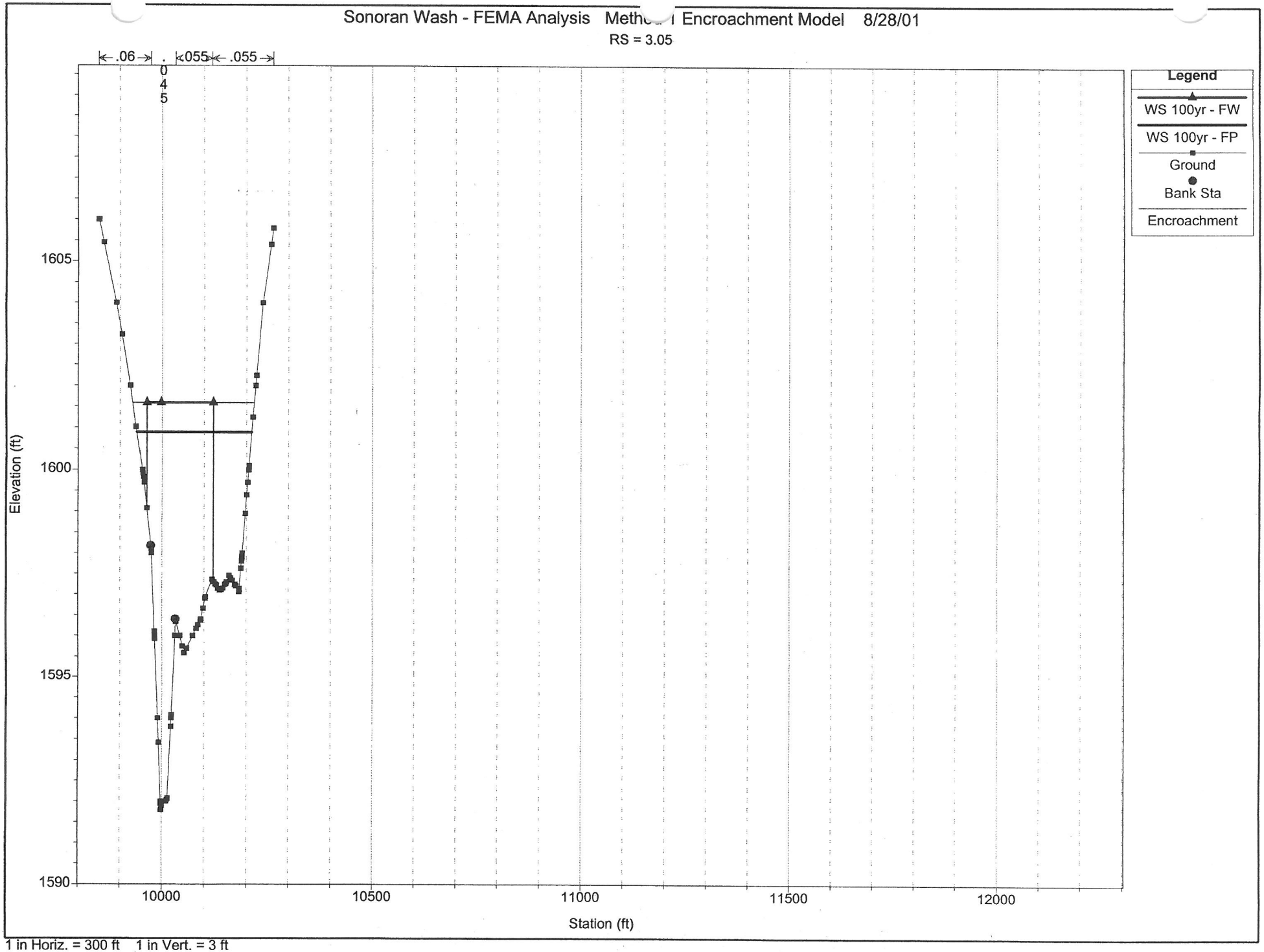

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.77
.06
.045
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1595
1590
1585
1580
9500
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

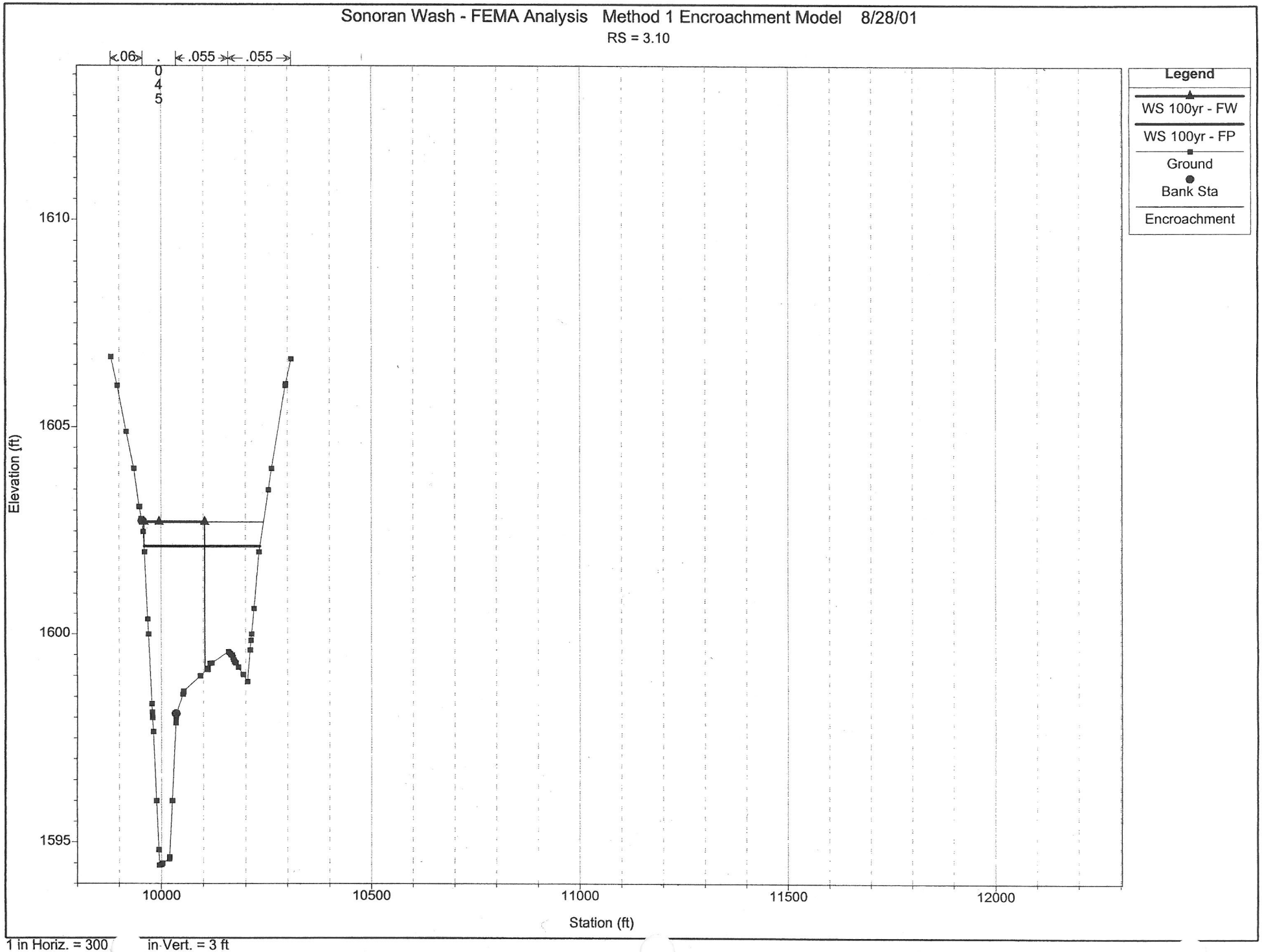

Sonoran Wash - FEMA Analysis Method Encroachment Model 8/28/01
RS = 2.84
.06
.045
.06
.055
045
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1600
1595
1590
1585
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

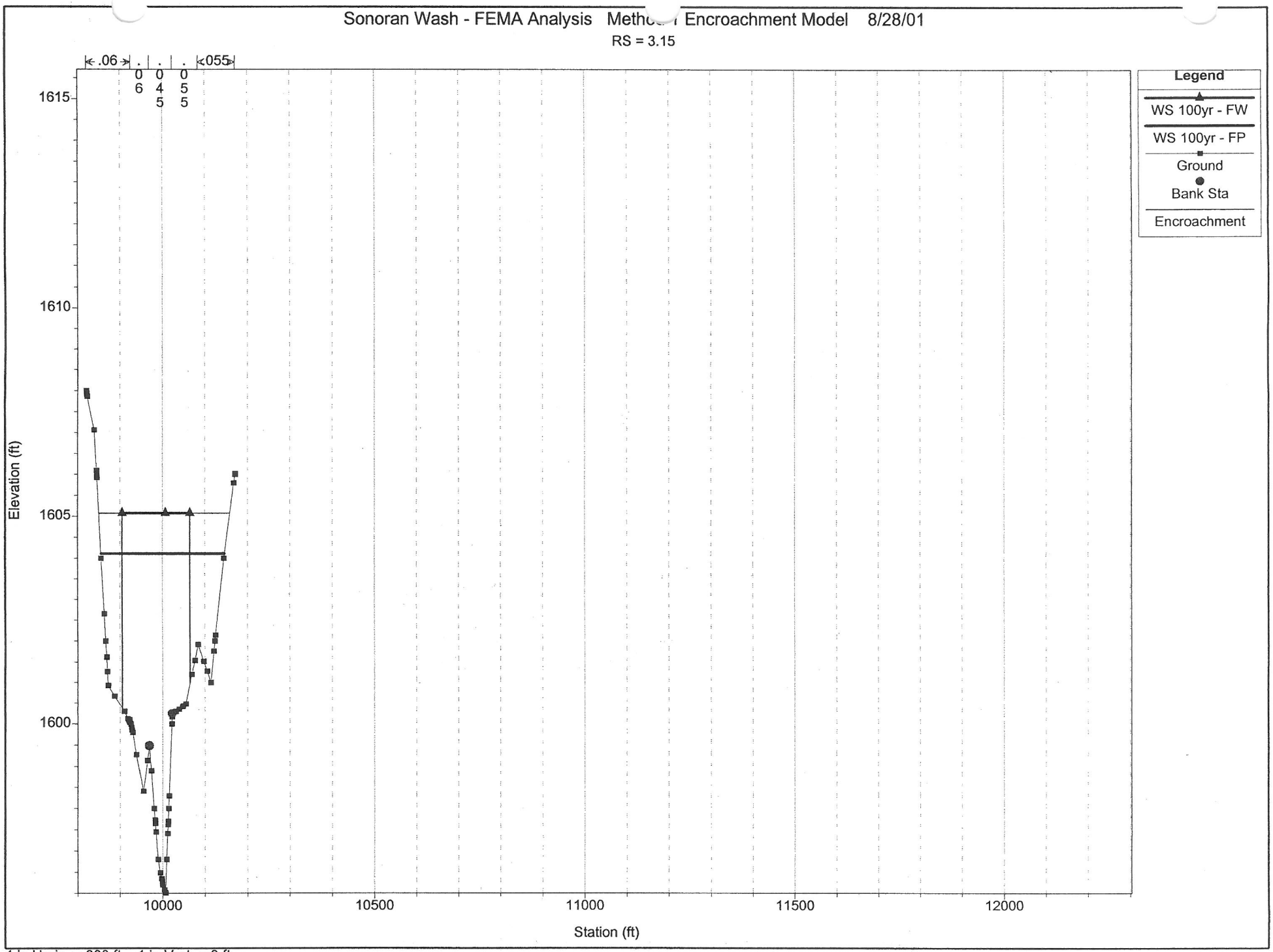

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.88
.06
.06
.06
.055
0
4
5
0
4
5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1605
1600
1595
1590
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

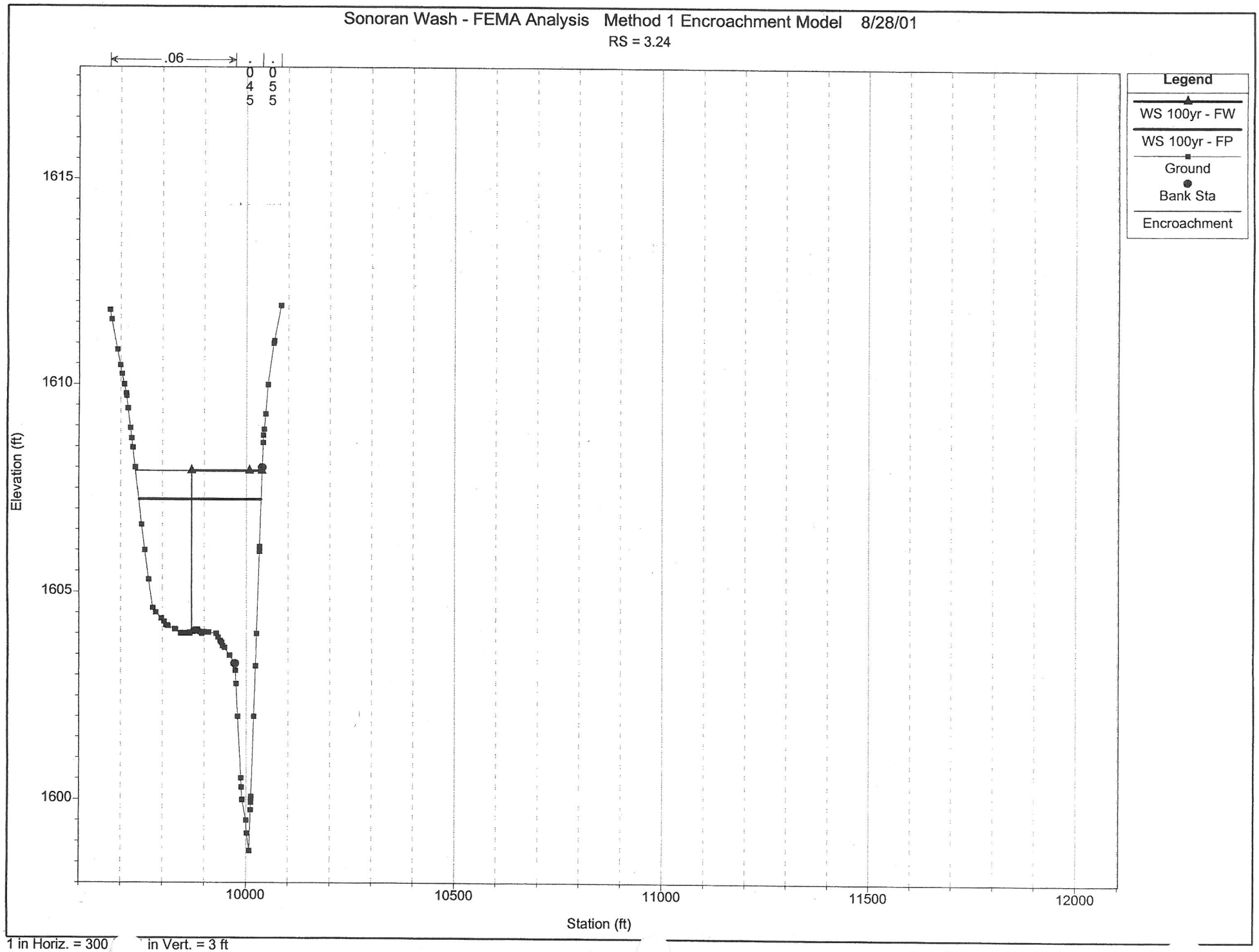

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.93
.06
.06
.06
.055
045
045
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1605
1600
1595
1590
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

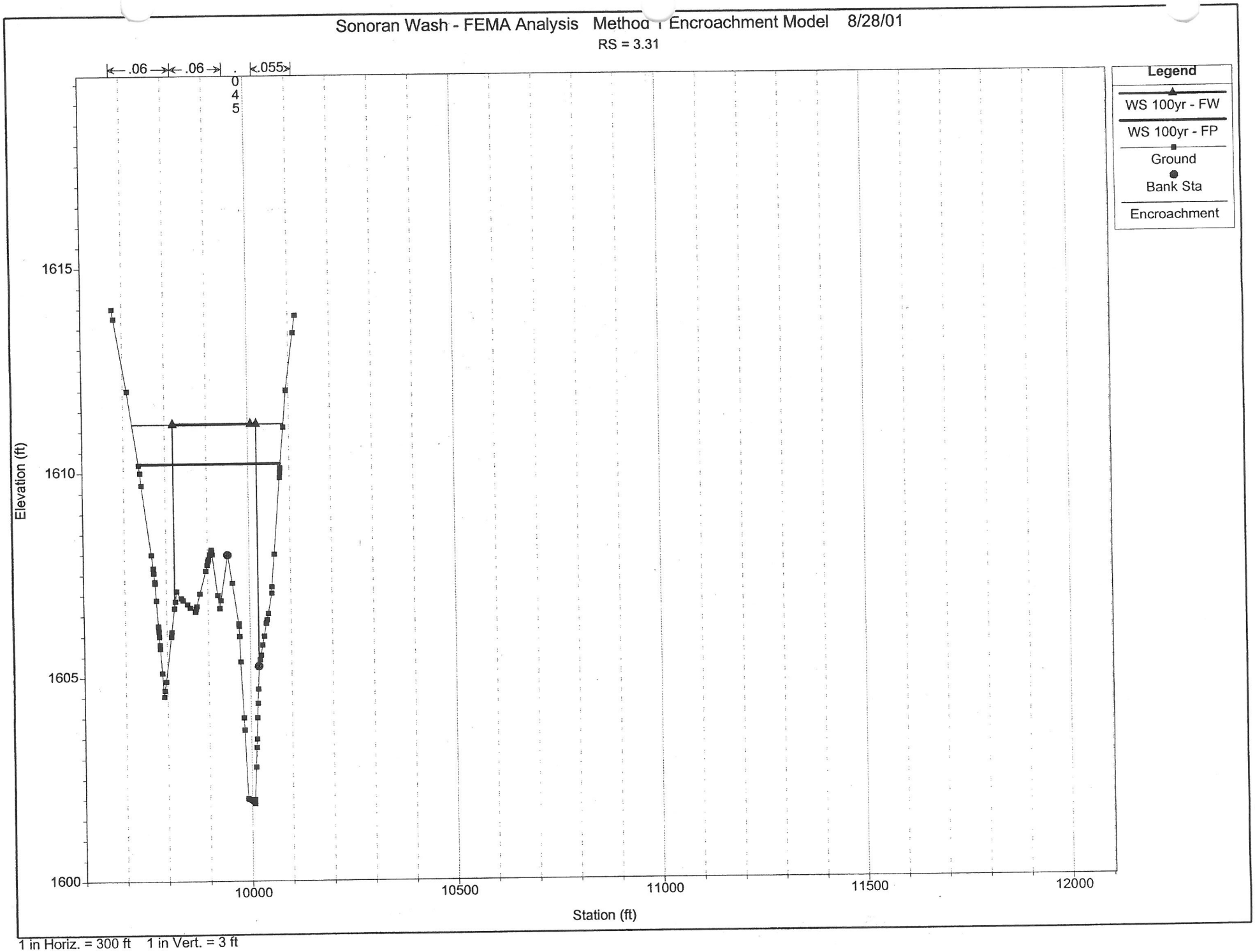

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 2.97
.06
.055
0
4
5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1605
1600
1595
1590
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

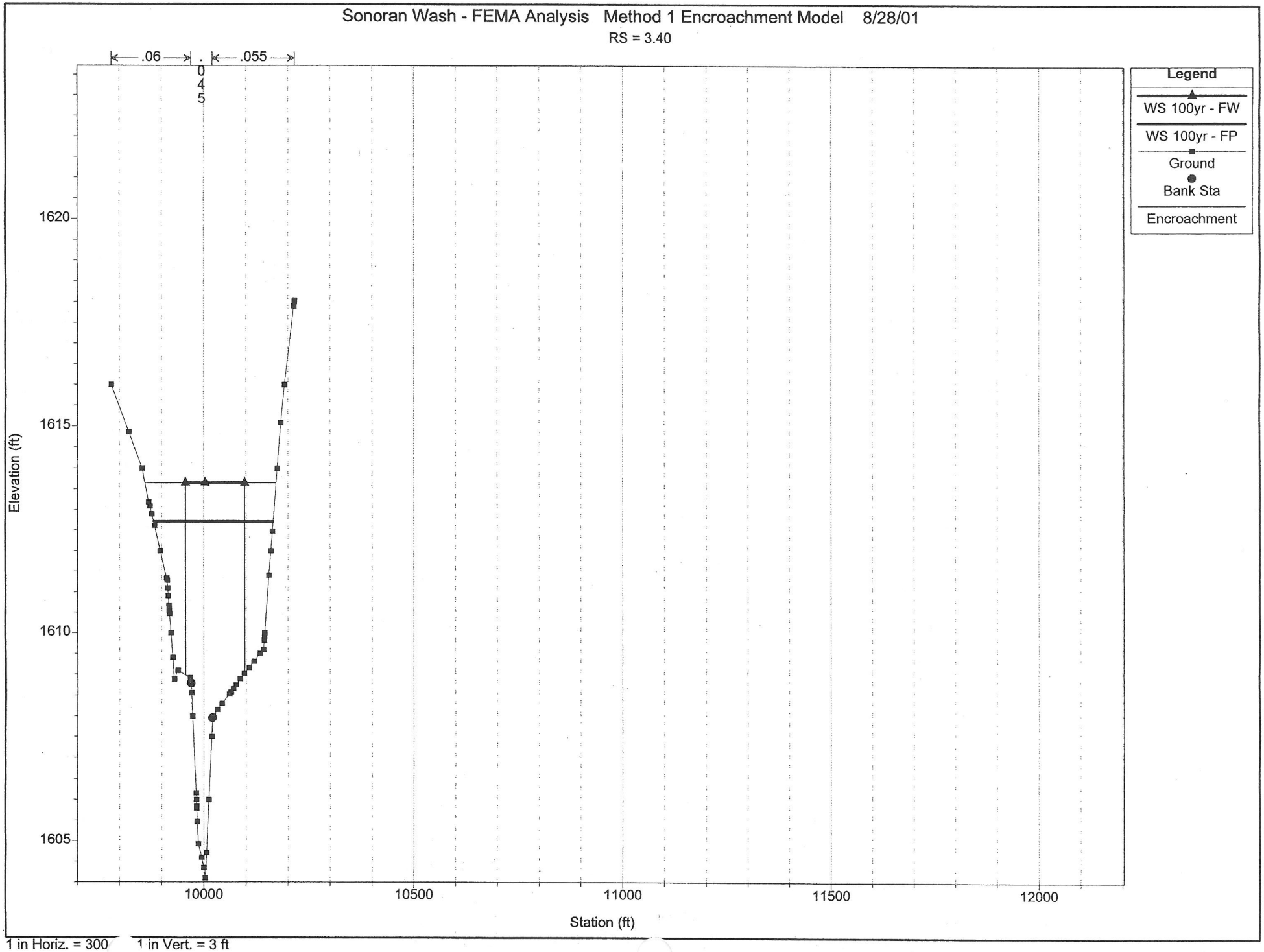

Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01
RS = 3.05
.06
.055
.055
0
4
5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1605
1600
1595
1590
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft
1 in Vert. = 3 ft

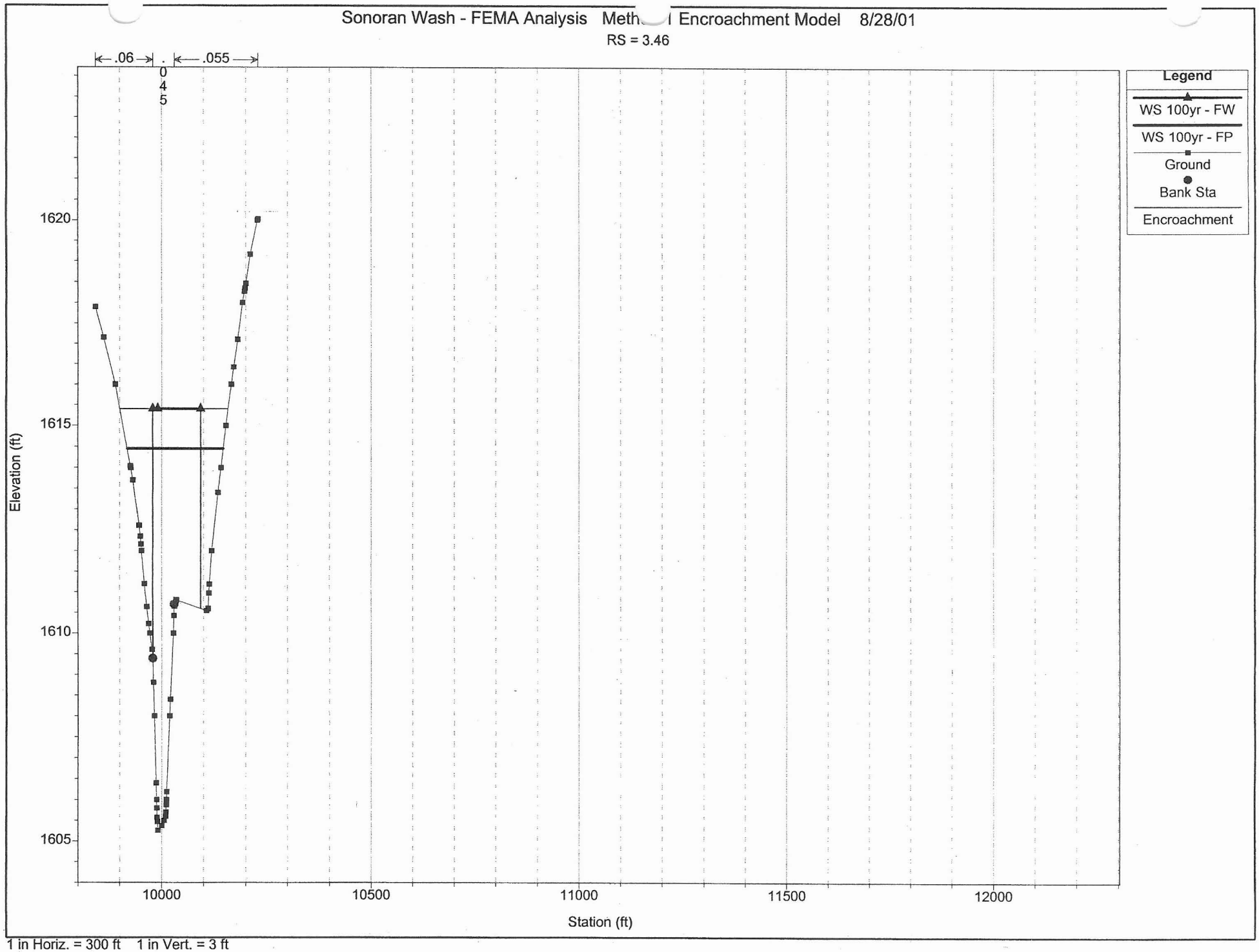

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.10
.06
.045
.055
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1610
1605
1600
1595
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft

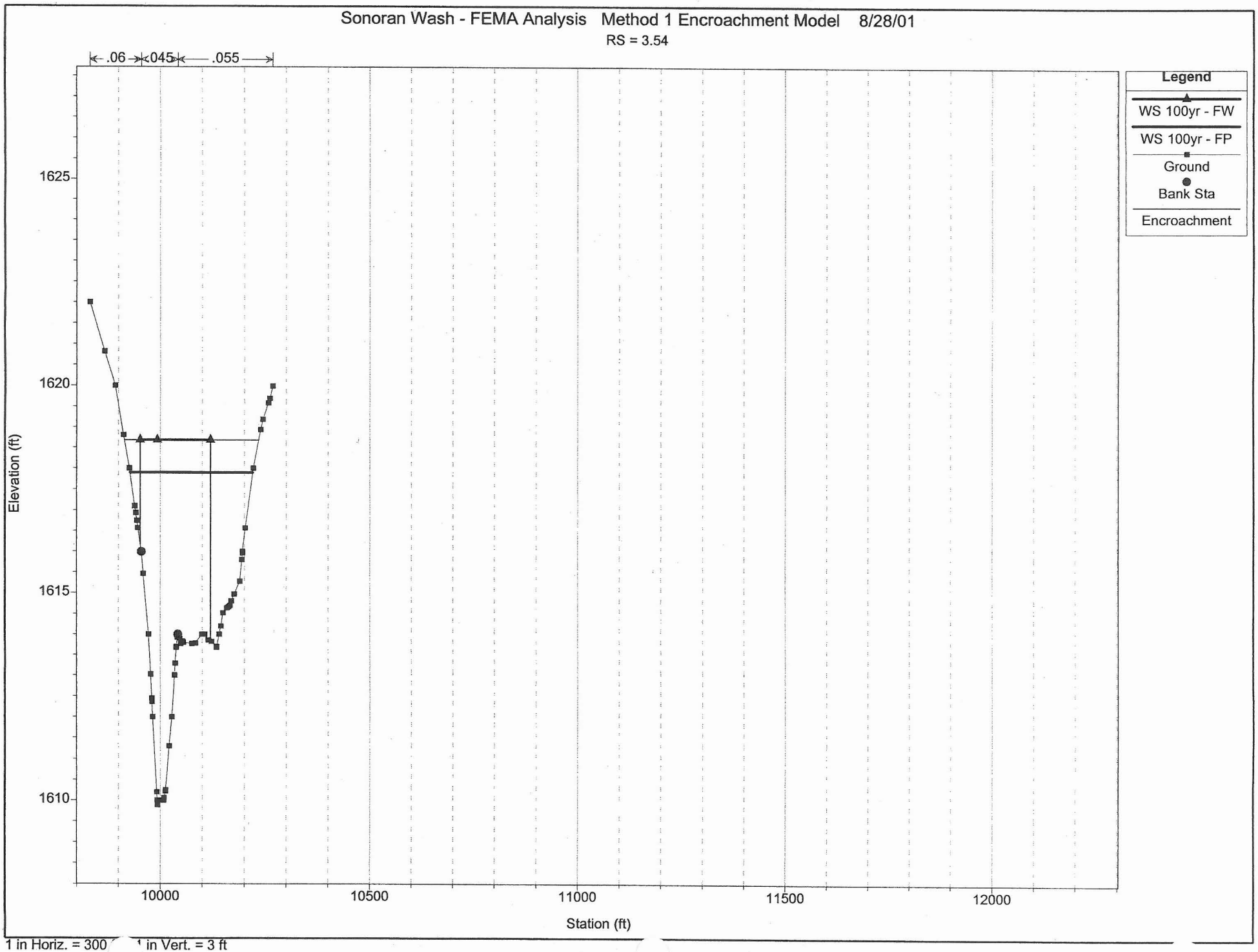

Sonoran Wash - FEMA Analysis Method Encroachment Model 8/28/01
RS = 3.15
.06
055
0 0 0
6 4 5
5 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1615
1610
1605
1600
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.24
.06
0 0
4 5
5 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1615
1610
1605
1600
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.31
.06
.06
.055
045
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1615
1610
1605
1600
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

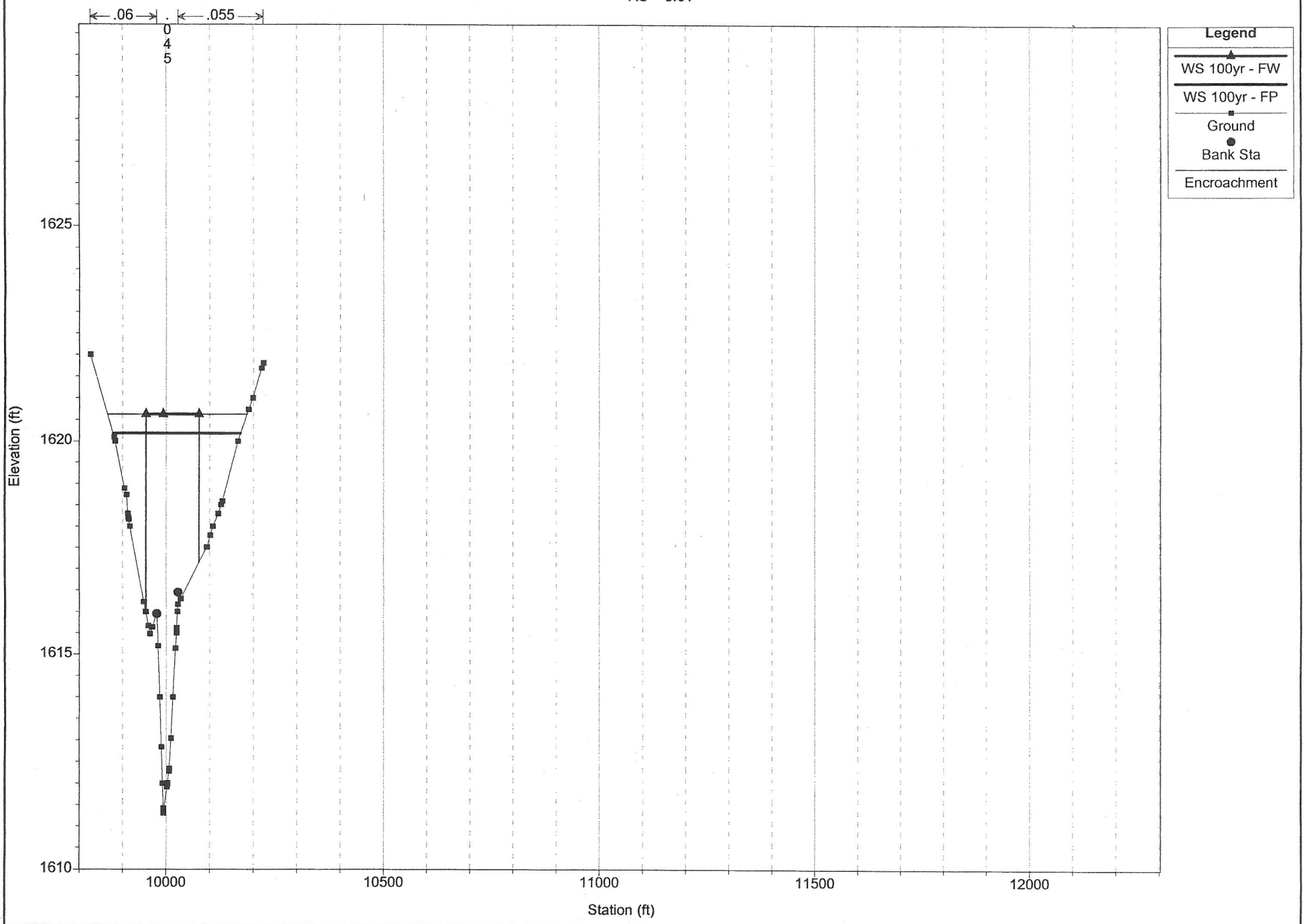

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.40
.06
.055
0
4
5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1620
1615
1610
1605
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Meth l Encroachment Model 8/28/01
RS = 3.46
.06
.055
0.045
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1620
1615
1610
1605
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

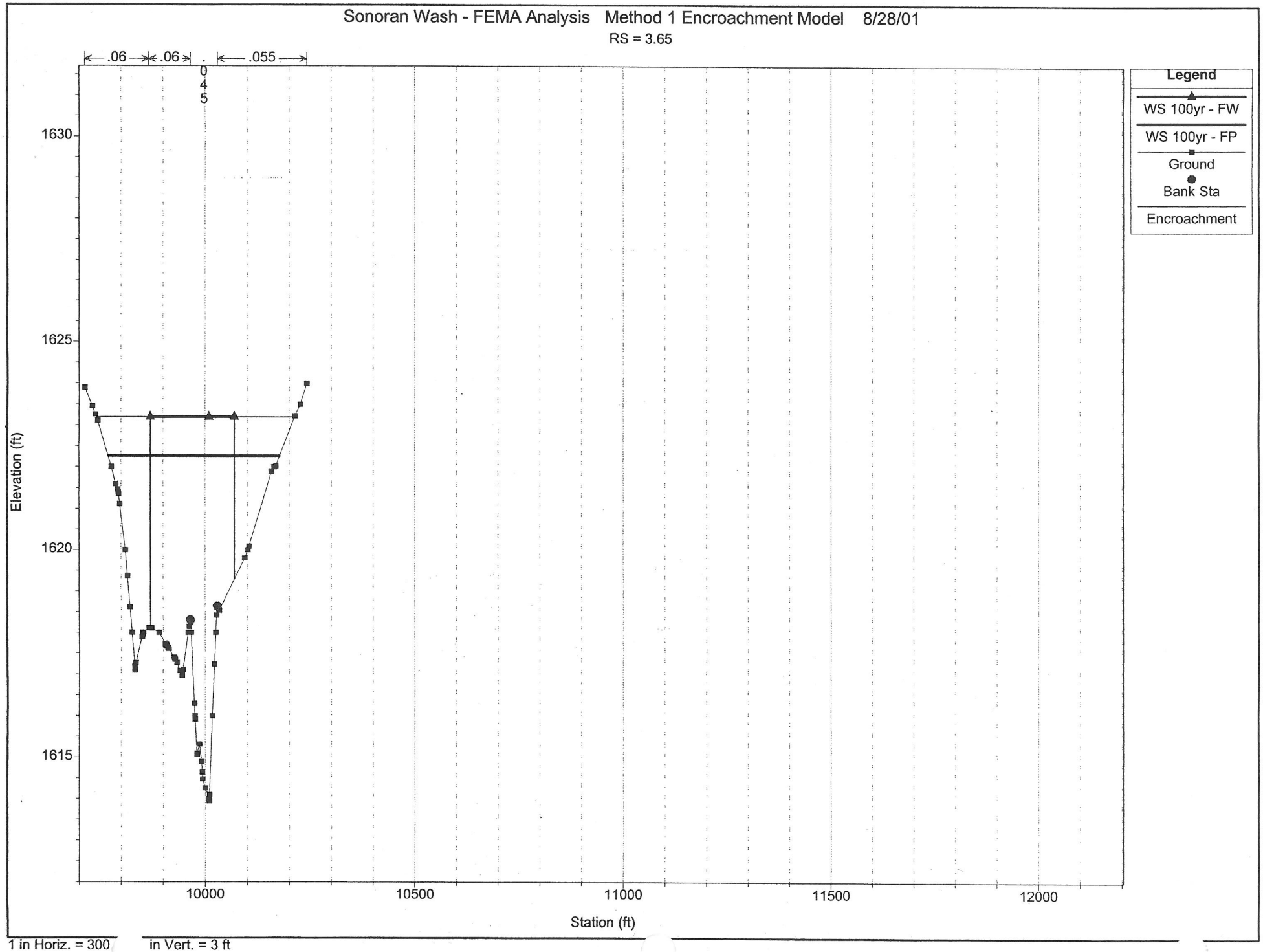

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.54
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1625
1620
1615
1610
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300
in Vert. = 3 ft

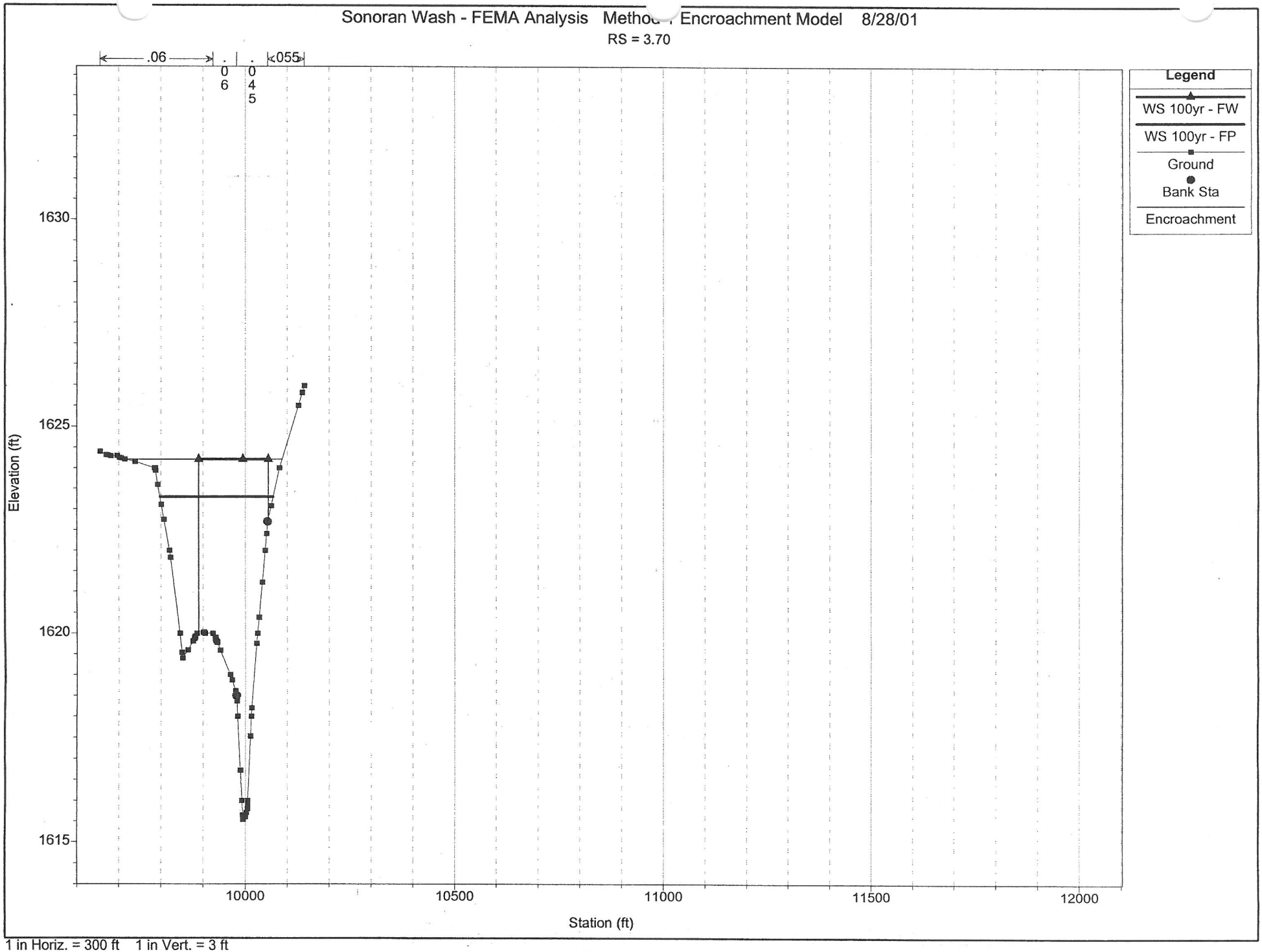
Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01

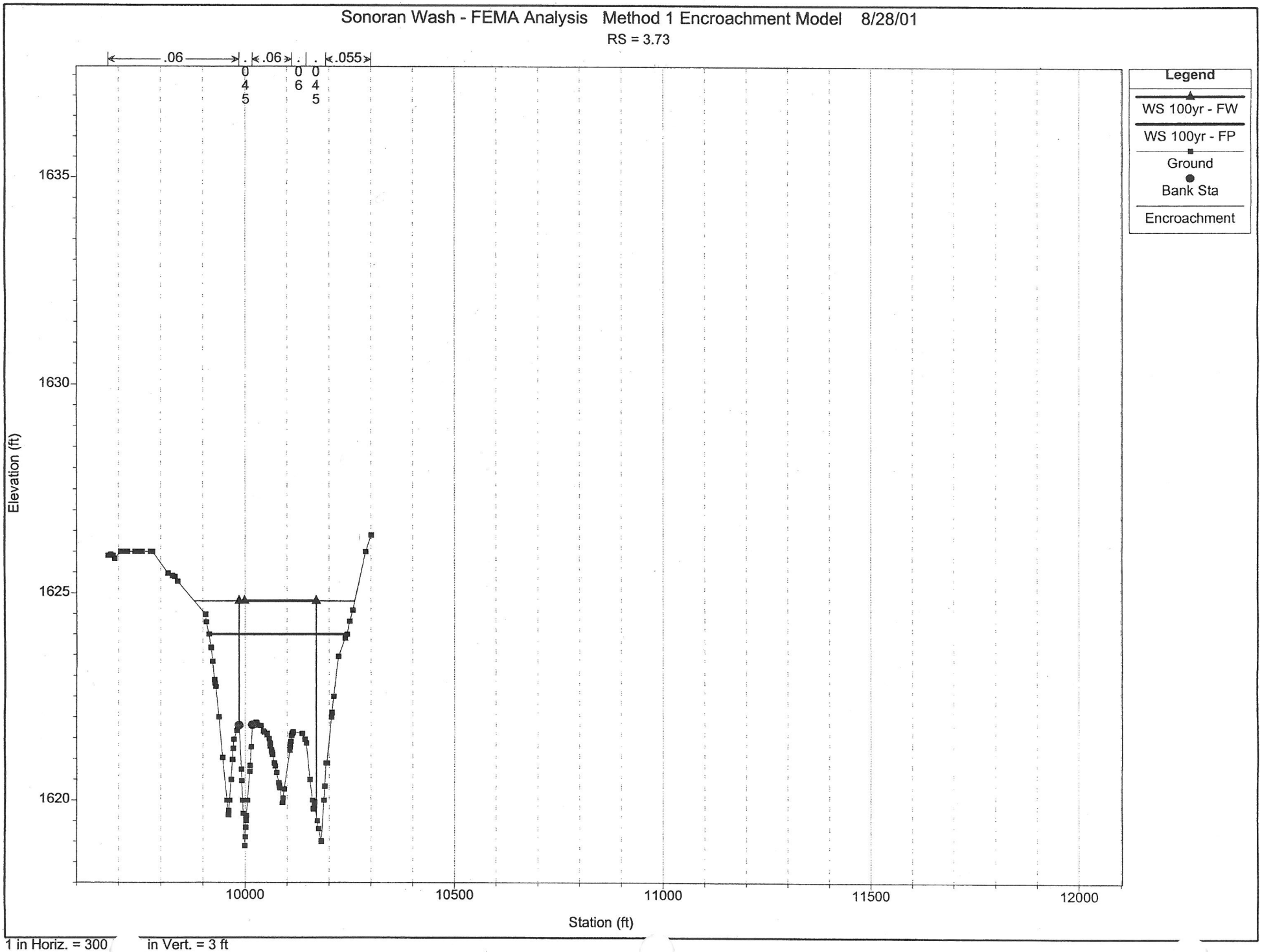
RS = 3.61

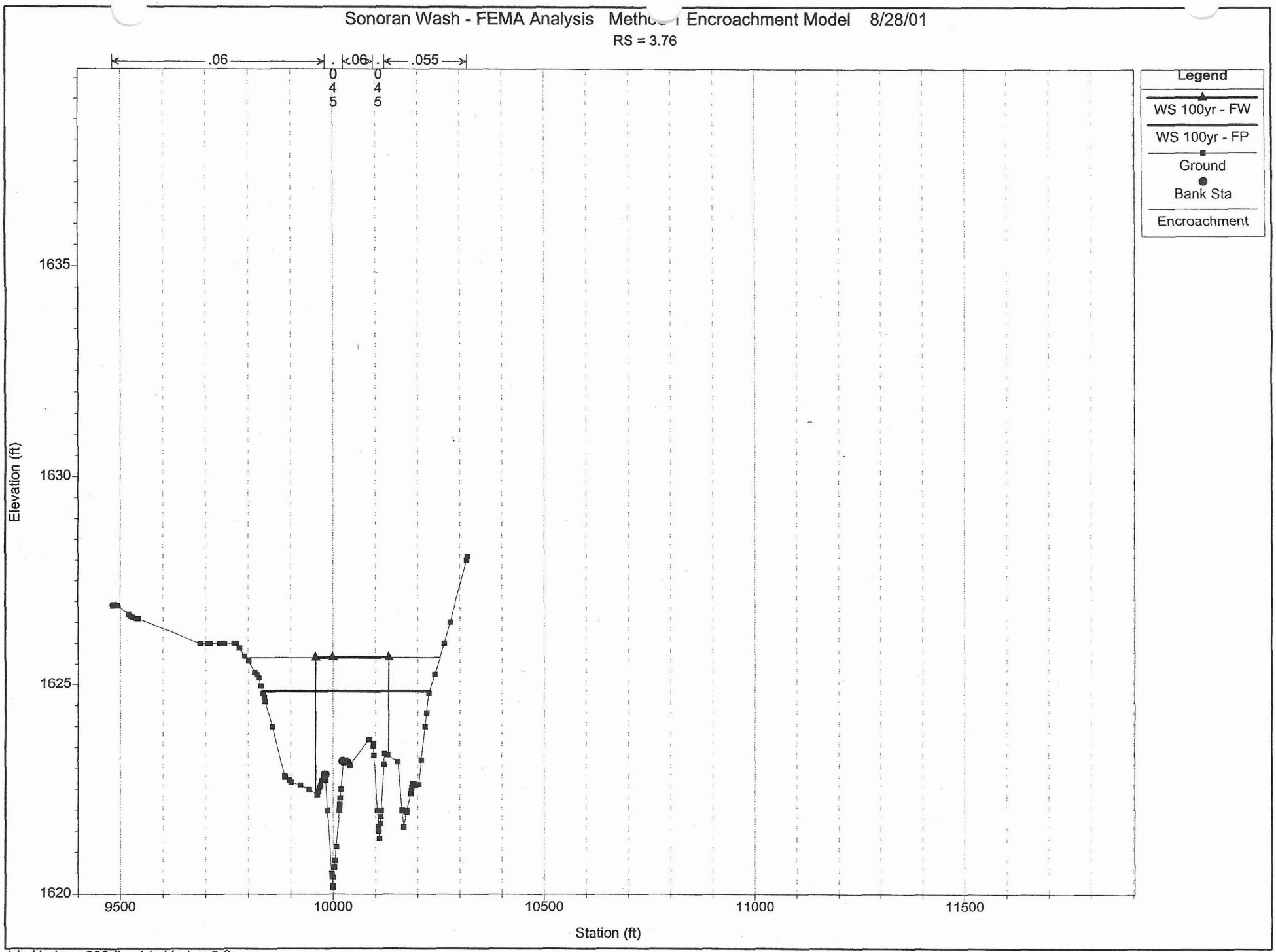


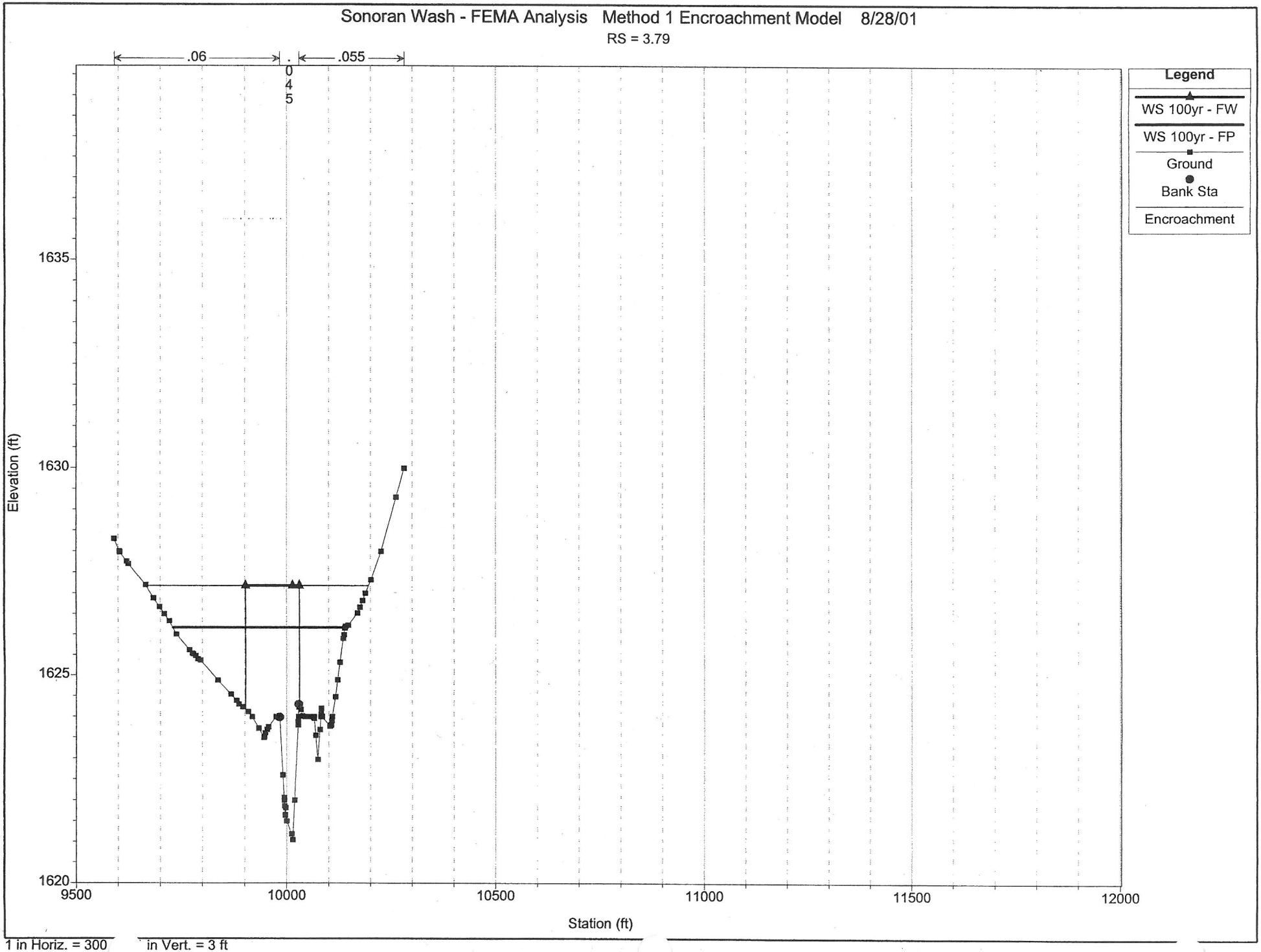
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

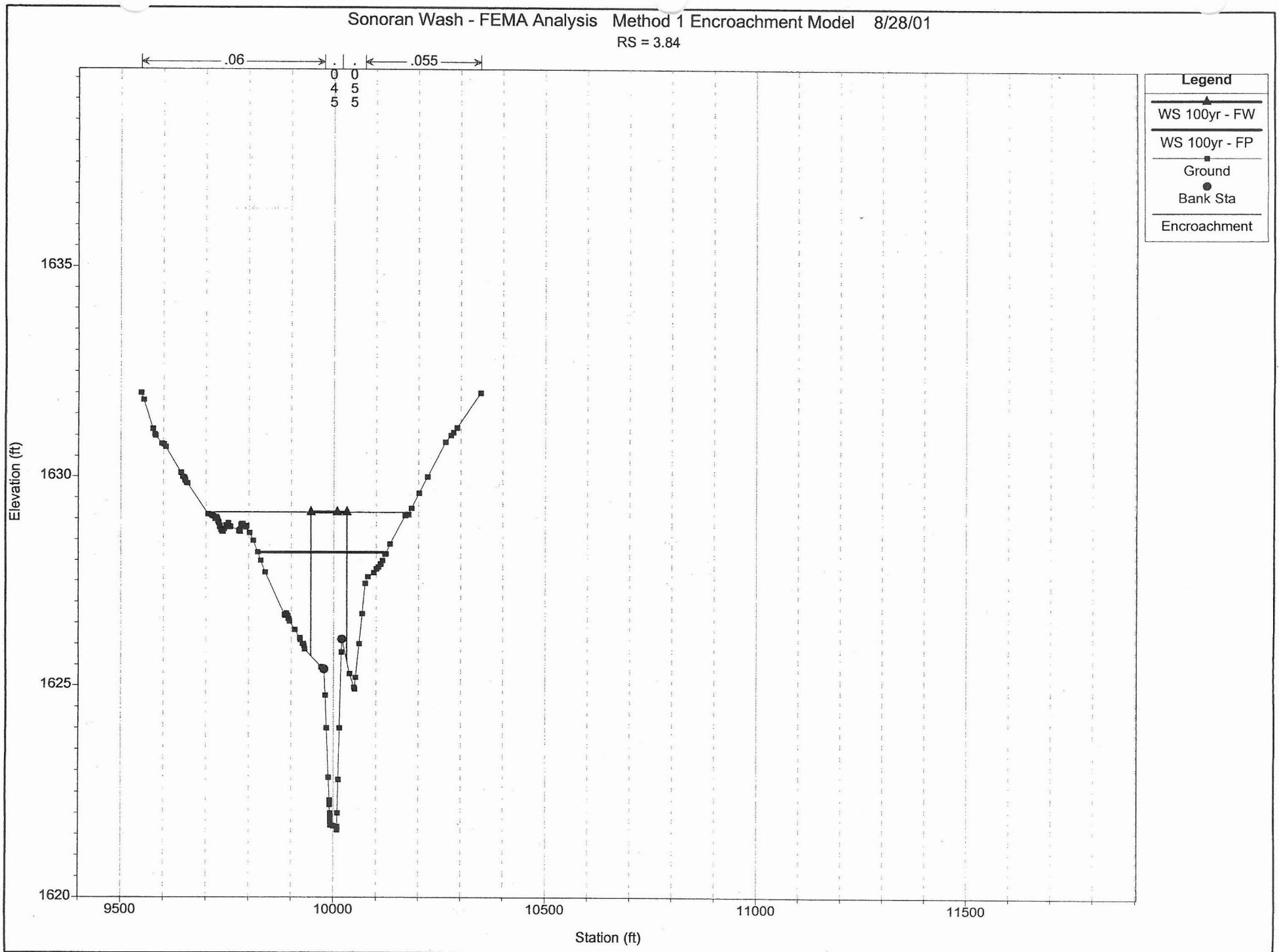

Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.65
.06
.06
.045
.055
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1630
1625
1620
1615
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01
RS = 3.70
.06
.055
0 6
0 4 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1630
1625
1620
1615
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.73
.06
.06
.055
0 4 5
0 6
0 4 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
1635
1630
1625
1620
Elevation (ft)
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 4 Encroachment Model 8/28/01
RS = 3.76
.06
.06
.055
0 4 5
0 4 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1635
1630
1625
1620
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.79
.06
.055
0
4
5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1635
1630
1625
1620
9500
10000
10500
11000
11500
12000
Station (ft)
1 in Horiz. = 300 in Vert. = 3 ft


Sonoran Wash - FEMA Analysis Method 1 Encroachment Model 8/28/01
RS = 3.84
.06
.055
0 0
4 5
5 5
Legend
WS 100yr - FW
WS 100yr - FP
Ground
Bank Sta
Encroachment
Elevation (ft)
1635
1630
1625
1620
9500
10000
10500
11000
11500
Station (ft)
1 in Horiz. = 300 ft 1 in Vert. = 3 ft

APPENDIX F

DISKETTE WITH HEC-RAS FILES

APPENDIX G

MANNING'S N-VALUE CALCULATIONS AND PHOTOGRAPHS

MANNING'S N VALUE CALCULATION SHEETS

Table A-1
Determination of Manning's n-value by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 1: RM 0.52 By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018	0.015	0.015	0.015
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032			
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035			
	Gravel		0.028 - 0.035			
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000	0.000	0.000
	Minor		0.001 - 0.005			
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.000	0.000
	Minor		0.005 - 0.015			
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010			
	Medium		0.010 - 0.025			
	Large		0.025 - 0.050			
	Very Large		0.050 - 0.100			
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000	0.000	0.000
	Alternating (occasionally)		0.001 - 0.005			
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.015	0.015	0.015
Photograph No.:					1-3	

Table A-1
Determination of Manning's n-value by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 2: RM 0.57 - 0.66 By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018			
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032	0.025		0.025
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035		0.026	
	Gravel		0.028 - 0.035			
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000	0.000	0.000
	Minor		0.001 - 0.005			
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.000	0.000
	Minor		0.005 - 0.015			
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010		0.010	
	Medium		0.010 - 0.025			0.025
	Large		0.025 - 0.050			
	Very Large		0.050 - 0.100	0.100		
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000	0.000	0.000
	Alternating (occasionally)		0.001 - 0.005			
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.125	0.036	0.050
Photograph No.:				4	5-8	

Table A-1
Determination of Manning's n-value by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 3: RM 0.73 By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018			
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032	0.025		0.025
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035		0.026	
	Gravel		0.028 - 0.035			
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000	0.000	0.000
	Minor		0.001 - 0.005			
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000		0.000
	Minor		0.005 - 0.015		0.002	
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010		0.010	
	Medium		0.010 - 0.025	0.025		
	Large		0.025 - 0.050			
	Very Large		0.050 - 0.100			0.050
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000	0.000	0.000
	Alternating (occasionally)		0.001 - 0.005			
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.050	0.038	0.075
Photograph No.:				9-11	6-8	12-14

Table A-1
Determination of Manning's n-value by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 4: RM 0.77 - 1.00 By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018			
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032	0.025		0.025
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035		0.026	
	Gravel		0.028 - 0.035			
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000	0.000	0.000
	Minor		0.001 - 0.005			
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.000	0.000
	Minor		0.005 - 0.015			
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010		0.010	
	Medium		0.010 - 0.025			
	Large		0.025 - 0.050			0.035
	Very Large		0.050 - 0.100	0.050		
Variations in Channel Cross Section	Gradual	n_4	0.000			0.000
	Alternating (occasionally)		0.001 - 0.005	0.005	0.001	
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.080	0.037	0.060
Photograph No.:				18-20	15-17	21-23

Table A-1
Determination of Manning's n-values by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 5: RM 1.09 - 1.77 By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018			
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032	0.025		0.025
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035			
	Gravel		0.028 - 0.035		0.028	
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000	0.000	0.000
	Minor		0.001 - 0.005			
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.002	0.000
	Minor		0.005 - 0.015			
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010			
	Medium		0.010 - 0.025	0.025	0.010	0.025
	Large		0.025 - 0.050			
	Very Large		0.050 - 0.100			
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000	0.000	0.000
	Alternating (occasionally)		0.001 - 0.005			
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.050	0.040	0.050
Photograph No.:				27-29	33-35	30-32
					42-45	

Table A-1
Determination of Manning's n-values by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 6: RM 1.84
8: RM 2.69

By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Confluence	Tributary Chnl	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018					
	Rock Cut		0.025					
	Firm Soil		0.025 - 0.032	0.025		0.025		0.025
	Fine Sand		0.023 - 0.026					
	Coarse Sand		0.026 - 0.035				0.026	
	Gravel		0.028 - 0.035					
	Cobble		0.030 - 0.050		0.030			
	Boulder		0.040 - 0.070					
Degree of Irregularity	Smooth	n_1	0.000	0.000		0.000	0.000	0.000
	Minor		0.001 - 0.005		0.001			
	Moderate		0.006 - 0.010					
	Severe		0.011 - 0.020					
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.002	0.000	0.000	0.000
	Minor		0.005 - 0.015					
	Appreciable		0.020 - 0.030					
	Severe		0.040 - 0.060					
Vegetation	Small	n_3	0.002 - 0.010					
	Medium		0.010 - 0.025		0.010		0.010	
	Large		0.025 - 0.050	0.035		0.030		0.030
	Very Large		0.050 - 0.100					
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000		0.000	0.000	0.000
	Alternating (occasionally)		0.001 - 0.005		0.002			
	Alternating (frequently)		0.010 - 0.015					
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000	1.000	1.000
	Appreciable		1.15					
	Severe		1.30					
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.060	0.045	0.055	0.036	0.055
Photograph No.:				102-104	52-54	77-79	80-82	83-85
					62-64			

Table A-1
Determination of Manning's n-values by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 7: RM 1.90 - 2.64
9: RM 2.73
11: RM 2.97 - 3.70
13: RM 3.79 - 3.84

By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018			
	Rock Cut		0.025			
	Firm Soil		0.025 - 0.032	0.025		0.025
	Fine Sand		0.023 - 0.026			
	Coarse Sand		0.026 - 0.035			
	Gravel		0.028 - 0.035		0.030	
	Cobble		0.030 - 0.050			
	Boulder		0.040 - 0.070			
Degree of Irregularity	Smooth	n_1	0.000	0.000		0.000
	Minor		0.001 - 0.005		0.001	
	Moderate		0.006 - 0.010			
	Severe		0.011 - 0.020			
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.002	0.000
	Minor		0.005 - 0.015			
	Appreciable		0.020 - 0.030			
	Severe		0.040 - 0.060			
Vegetation	Small	n_3	0.002 - 0.010			
	Medium		0.010 - 0.025		0.010	
	Large		0.025 - 0.050	0.035		0.030
	Very Large		0.050 - 0.100			
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000		0.000
	Alternating (occasionally)		0.001 - 0.005		0.002	
	Alternating (frequently)		0.010 - 0.015			
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000
	Appreciable		1.15			
	Severe		1.30			
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.060	0.045	0.055
Photograph No.:				102-104	52-54	77-79
					62-64	

Table A-1
Determination of Manning's n-values by the FCDMC method

Project: Skunk Creek Watercourse Master Plan
Steam: Sonoran Wash
Reach: 10: RM 2.77 - 2.93
12: RM 3.73 - 3.76

By: mcg Date: 12 Jan. 00

Channel Conditions		Manning's n Adjustment		Left Overbank	Left Braid	Island	Main Channel	Right Overbank
Channel Bed Material	Concrete	n_0	0.012 - 0.018					
	Rock Cut		0.025					
	Firm Soil		0.025 - 0.032	0.025		0.025		0.025
	Fine Sand		0.023 - 0.026					
	Coarse Sand		0.026 - 0.035					
	Gravel		0.028 - 0.035					
	Cobble		0.030 - 0.050		0.030		0.030	
	Boulder		0.040 - 0.070					
Degree of Irregularity	Smooth	n_1	0.000	0.000		0.000		0.000
	Minor		0.001 - 0.005		0.001		0.001	
	Moderate		0.006 - 0.010					
	Severe		0.011 - 0.020					
Effects of Obstructions	Negligable	n_2	0.000 - 0.004	0.000	0.002	0.000	0.002	0.000
	Minor		0.005 - 0.015					
	Appreciable		0.020 - 0.030					
	Severe		0.040 - 0.060					
Vegetation	Small	n_3	0.002 - 0.010					
	Medium		0.010 - 0.025		0.010		0.010	
	Large		0.025 - 0.050	0.035		0.035		0.030
	Very Large		0.050 - 0.100					
Variations in Channel Cross Section	Gradual	n_4	0.000	0.000		0.000		0.000
	Alternating (occasionally)		0.001 - 0.005		0.002		0.002	
	Alternating (frequently)		0.010 - 0.015					
Degree of Meandering	Minor	m	1.00	1.000	1.000	1.000	1.000	1.000
	Appreciable		1.15					
	Severe		1.30					
$n = (n_0 + n_1 + n_2 + n_3 + n_4)m$				0.060	0.045	0.060	0.045	0.055
Photograph No.:				86-88	89-91	92	93-95	96-98

PHOTOGRAPH LOCATIONS AND DESCRIPTIONS

Table A-2

Skunk Creek Watercourse Master Plan
Photograph location and description for Unnamed Tributary

Picture[a]	GPS Coordinate ID[b]	Description
1	75	Looking upstream at overchute
2		Debris caught in baffle blocks
3		Looking downstream at overchute
4		Looking upstream from overchute
5		Bed material just upstream of overchute
6	76	Channel bed material
7		Looking upstream in main channel
8		Looking downstream in main channel
9		Left overbank bed material
10		Looking upstream in left overbank
11		Looking downstream in left overbank
12		Right overbank bed material
13		Looking upstream in right overbank
14		Looking downstream in right overbank
15	77	Channel bed material
16		Looking upstream in main channel
17		Looking downstream in main channel
18		Left overbank bed material
19		Looking upstream in left overbank
20		Looking downstream in left overbank
21		Right overbank bed material
22		Looking upstream in right overbank
23		Looking downstream in right overbank
24	78	Channel bed material
25		Looking upstream in main channel
26		Looking downstream in main channel
27		Left overbank bed material
28		Looking upstream in left overbank
29		Looking downstream in left overbank
30		Right overbank bed material
31		Looking upstream in right overbank
32		Looking downstream in right overbank
33	79	Channel bed material
34		Looking upstream in main channel
35		Looking downstream in main channel
36		Left overbank bed material
37		Looking upstream in left overbank
38		Looking downstream in left overbank
39		Right overbank bed material
40		Looking upstream in right overbank

Notes:
A: Selected photographs that are representative of reach characteristics are highlighted
B: Photographs were taken in the vicinity of GPS coordinate. See Plate 1 for the GPS coordinate location.

Table A-2 (continued)

Skunk Creek Watercourse Master Plan
Photograph location and description for Unnamed Tributary

Picture[a]	GPS Coordinate ID[b]	Description
41		Looking downstream in right overbank
42		Typical bed material in riffle
43	80	Channel bed material
44		Looking upstream in main channel
45		Looking downstream in main channel
46		Left overbank bed material
47		Looking upstream in left overbank
48		Looking downstream in left overbank
49		Right overbank bed material
50		Looking upstream in right overbank
51		Looking downstream in right overbank
52	84	Channel bed material
53		Looking upstream in main channel
54		Looking downstream in main channel
55		Left overbank bed material
56		Looking upstream in left overbank
57		Looking downstream in left overbank
58		Right overbank bed material
59		Looking upstream in right overbank
60		Looking downstream in right overbank
61	85	Old bridge abutment
62	86	Channel bed material
63		Looking upstream in main channel
64		Looking downstream in main channel
65		Left overbank bed material
66		Looking upstream in left overbank
67		Looking downstream in left overbank
68		Right overbank bed material
69		Looking upstream in right overbank
70		Looking downstream in right overbank
71	87	Channel bed material
72		Looking upstream in main channel
73		Looking downstream in main channel
74		Left overbank bed material
75		Looking upstream in left overbank
76		Looking downstream in left overbank
77		Inundation area bed material
78		Looking upstream in overbank
79		Looking downstream in overbank
80		Tributary channel bad material

Notes:
A: Selected photographs that are representative of reach characteristics are highlighted
B: Photographs were taken in the vicinity of GPS coordinate. See Plate 1 for the GPS coordinate location.

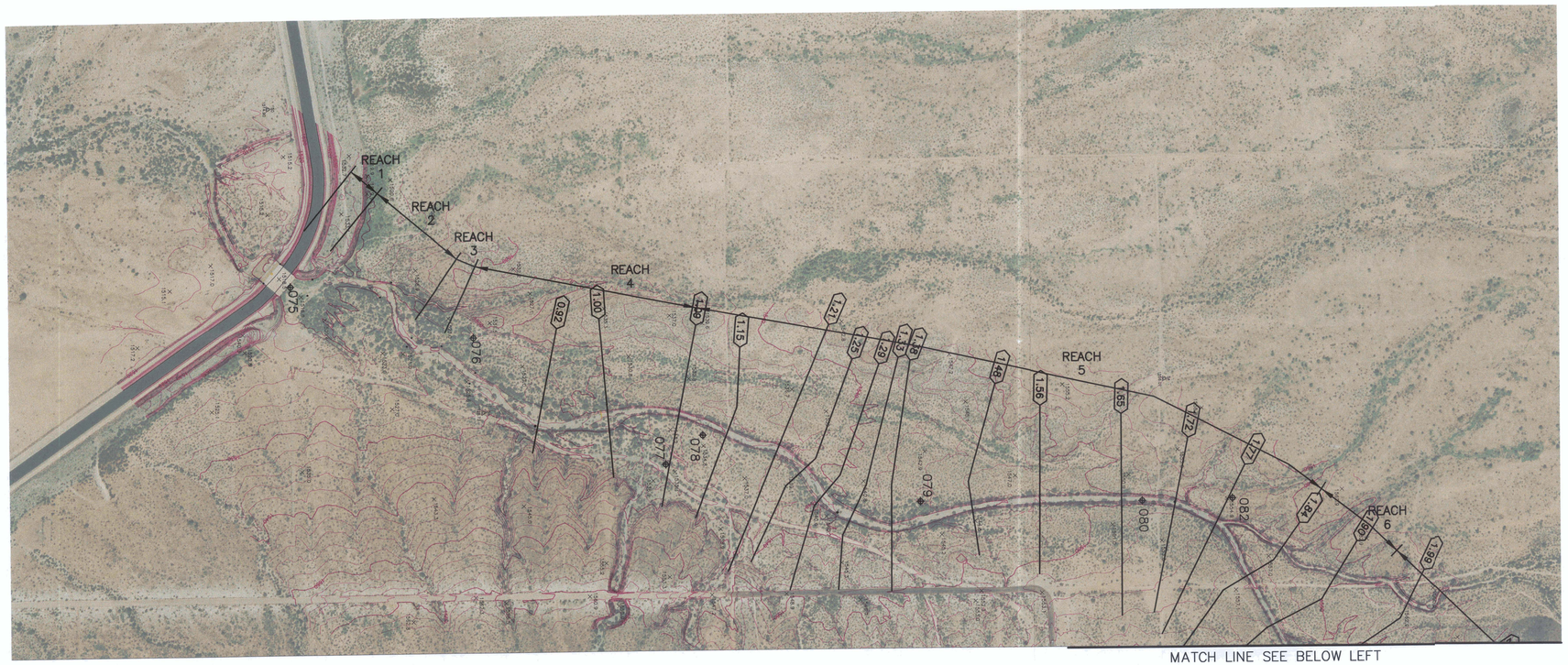
Table A-2 (continued)

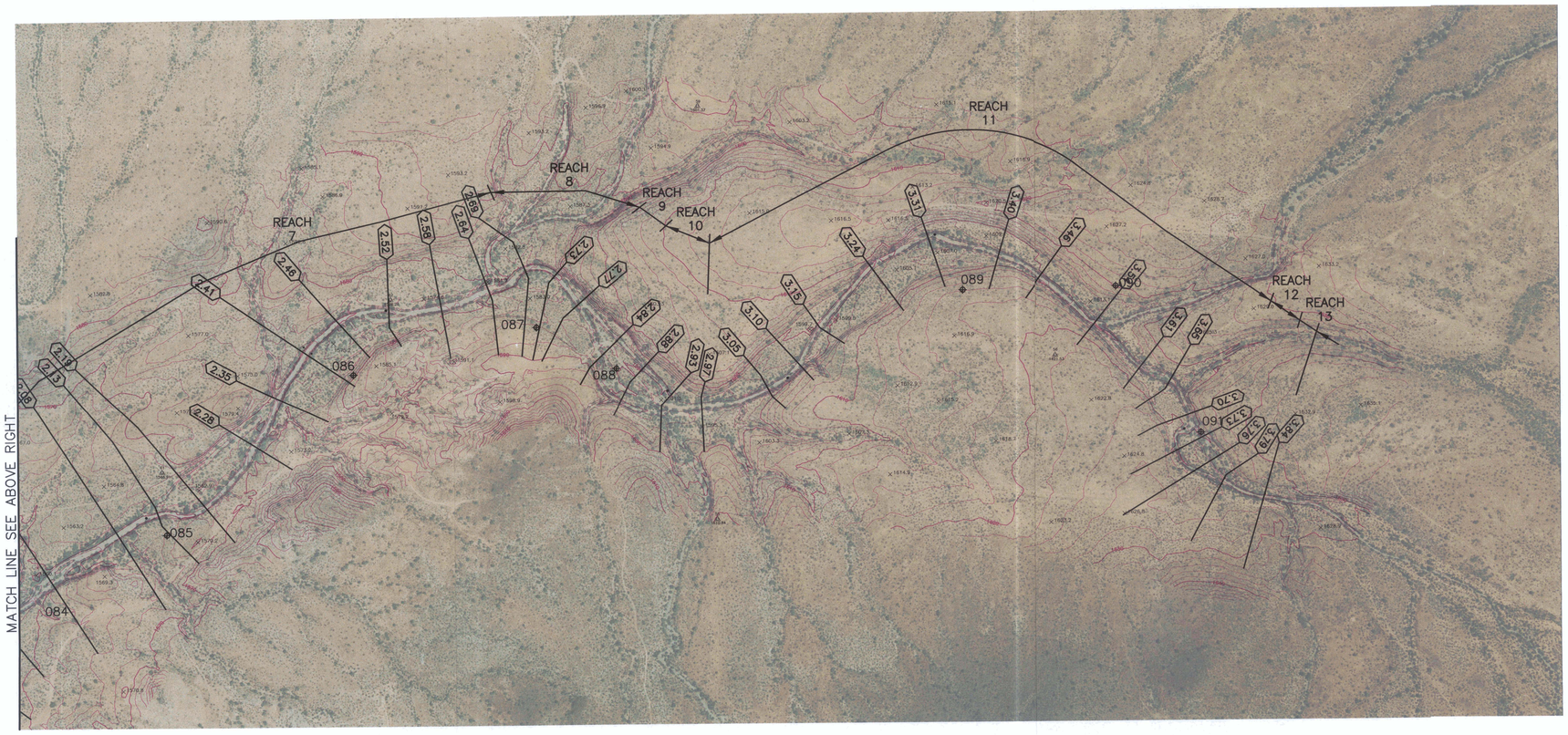
Skunk Creek Watercourse Master Plan
Photograph location and description for Unnamed Tributary

Picture[a]	GPS Coordinate ID[b]	Description
81		Looking upstream in tributary channel
82		Looking downstream in tributary channel
83		Right overbank bed material
84		Looking upstream in right overbank
85		Looking downstream in right overbank
86	88	Left overbank material
87		Looking upstream in left overbank
88		Looking downstream in left overbank
89		Left braid bed material
90		Looking upstream in left braid
91		Looking downstream in left braid
92		Island bed material
93		Right braid bed material
94		Looking upstream in right braid
95		Looking downstream in right braid
96		Right overbank bed material
97		Looking upstream in right overbank
98		Looking downstream in right overbank
99	89	Channel bed material
100		Looking upstream in main channel
101		Looking downstream in main channel
102		Left overbank bed material
103		Looking upstream in left overbank
104		Looking downstream in left overbank
105		Right overbank bed material
106		Looking upstream in right overbank
107		Looking downstream in right overbank
108	91	Channel bed material
109		Looking upstream in main channel
110		Looking downstream in main channel
111		Left overbank bed material
112		Looking upstream in left overbank
113		Looking downstream in left overbank
114		Right overbank bed material
115		Looking upstream in right overbank
116		Looking downstream in right overbank

Notes:
A: Selected photographs that are representative of reach characteristics are highlighted
B: Photographs were taken in the vicinity of GPS coordinate. See Plate 1 for the GPS coordinate location.

MANNING'S N VALUE REACH LIMITS AND PHOTOGRAPH LOCATIONS





N

400 0 400 800

SCALE OF FEET

Stantec Consulting Inc.
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Phoenix AZ U.S.A.
85044
Tel. 602.438.2200
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Legend

CROSS SECTION 1.99

n–VALUE REACH IDENTIFIER REACH 6

GPS COORDINATE AND PHOTO VICINITY LOCATION 080

File Name:FIGURE1.DWG | DES\ES Dwn. | PJE Dsgn. | MCG Dsgn. | 10/12/99 Date

Client/Project

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK WATERCOURSE MASTER PLAN

Title

PLATE 1
SONORAN WASH MANNING'S N-VALUE REACH MAP

Project No.	Scale	
82000141	1"=400'	
Drawing No.	Sheet	Revision
Appendix A, Figure 1	1 of 1	0

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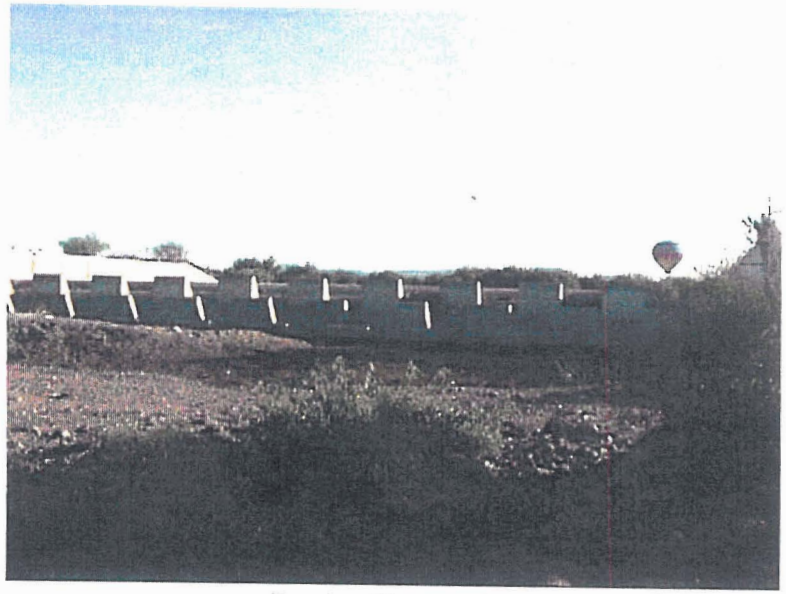
2000 July 16, 10:28 a.m.

SELECTED FIELD PHOTOGRAPHS

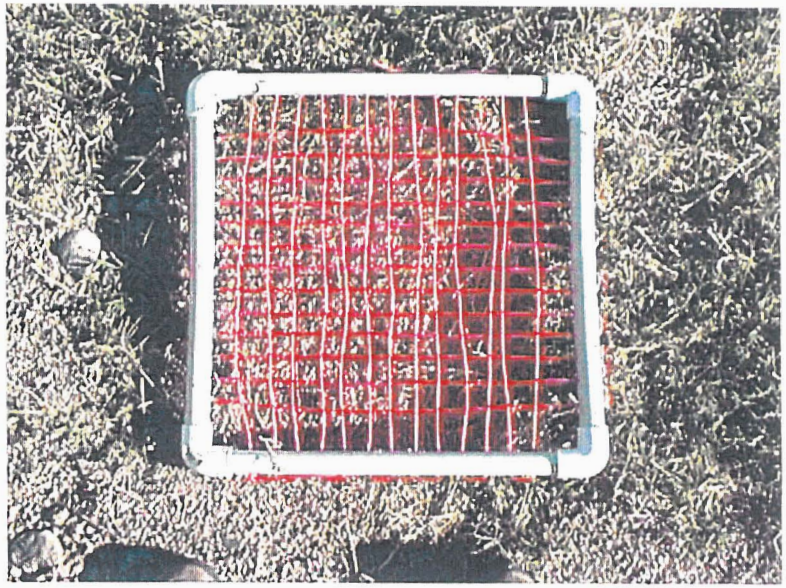


Reach 1, Photograph 1
Looking upstream at overchute

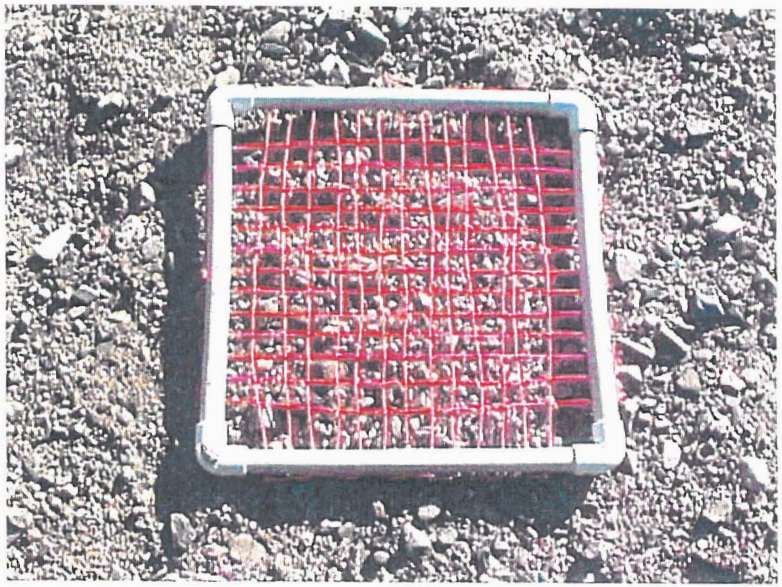
Reach 1, Photograph 2
Debris caught in baffle blocks

Reach 1, Photograph 3
Looking downstream at overchute

Reach 2, Photograph 4
Looking upstream from overchute



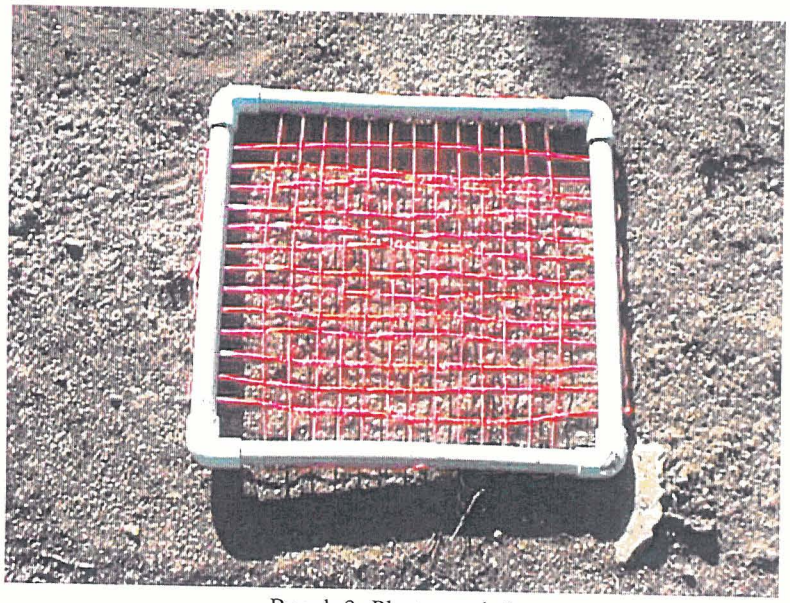
Reach 2, Photograph 5
Bed material just upstream of overchute



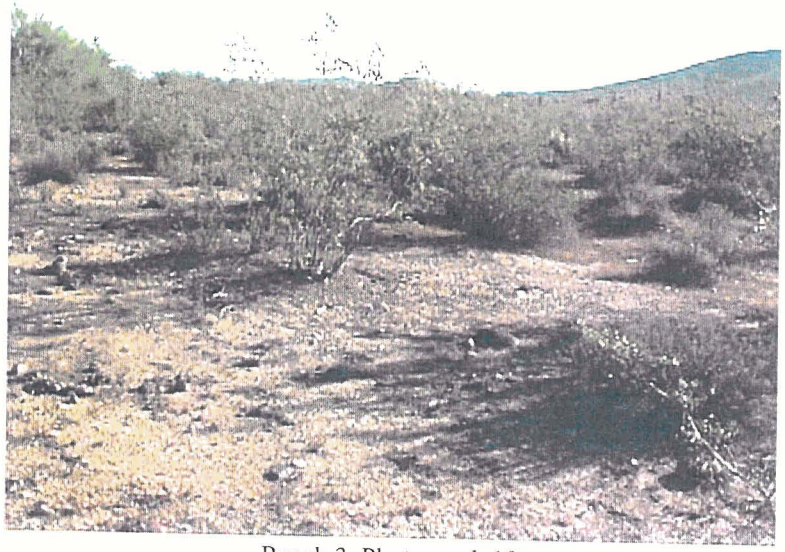
Reach 2, Photograph 6
Channel bed material

Reach 2, Photograph 7
Looking upstream in main channel

Reach 2, Photograph 8
Looking downstream in main channel

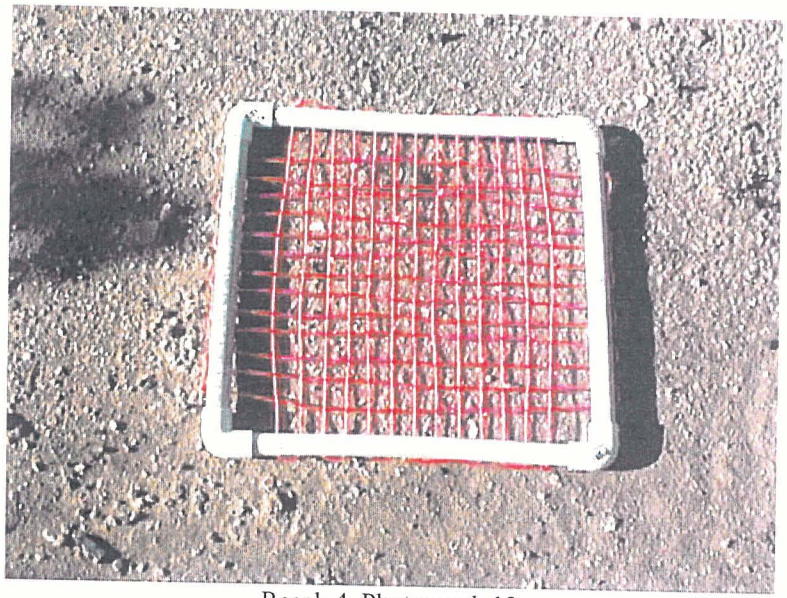


Reach 3, Photograph 9
Left overbank bed material



Reach 3, Photograph 10
Looking upstream in left overbank

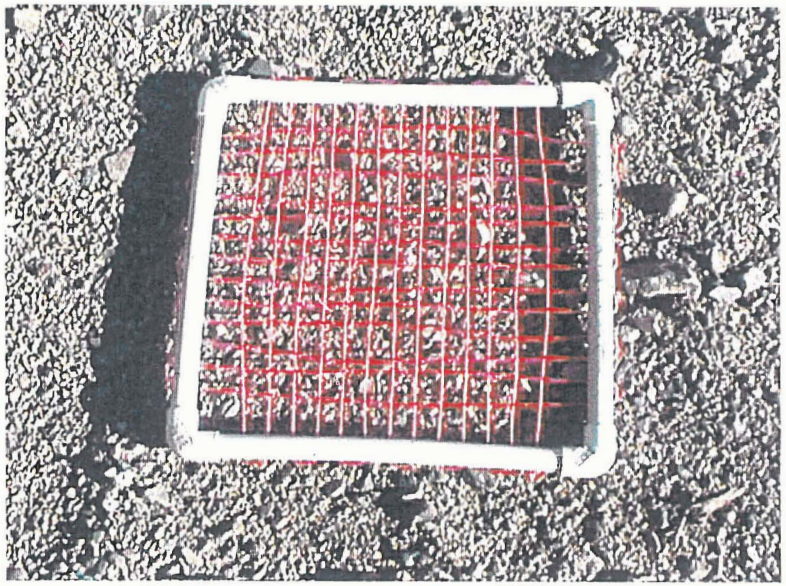
Reach 3, Photograph 11
Looking downstream in left overbank



Reach 4, Photograph 12
Right overbank bed material

Reach 3, Photograph 13
Looking upstream in right overbank

Reach 3, Photograph 14
Looking downstream in right overbank



Reach 4, Photograph 15
Channel bed material

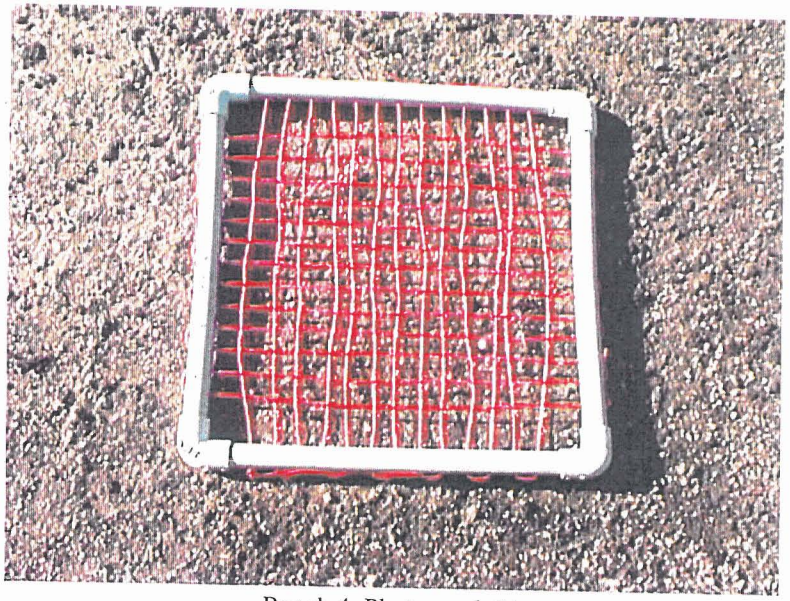
Reach 4, Photograph 16
Looking upstream in main channel

Reach 4, Photograph 17
Looking downstream in main channel

Reach 4, Photograph 18
Left overbank bed material

Reach 4, Photograph 19
Looking upstream in left overbank

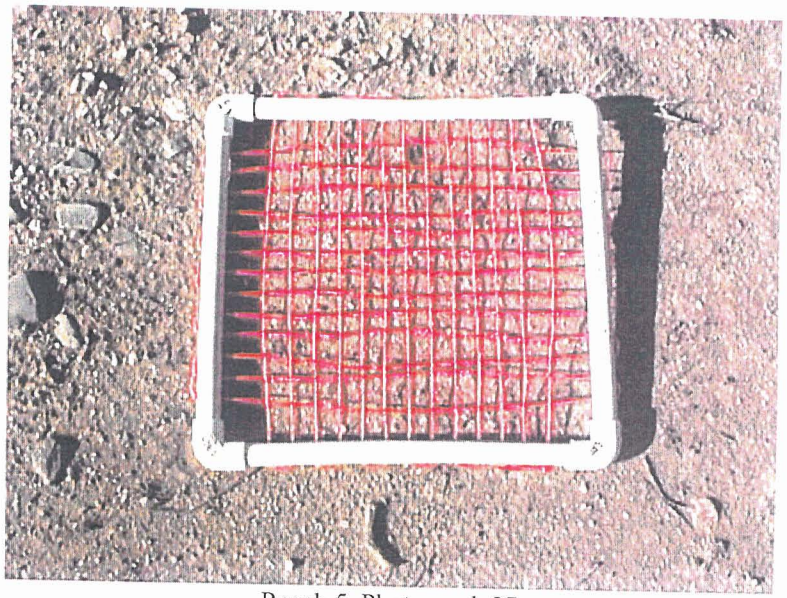
Reach 4, Photograph 20
Looking downstream in left overbank



Reach 4, Photograph 21
Right overbank bed material

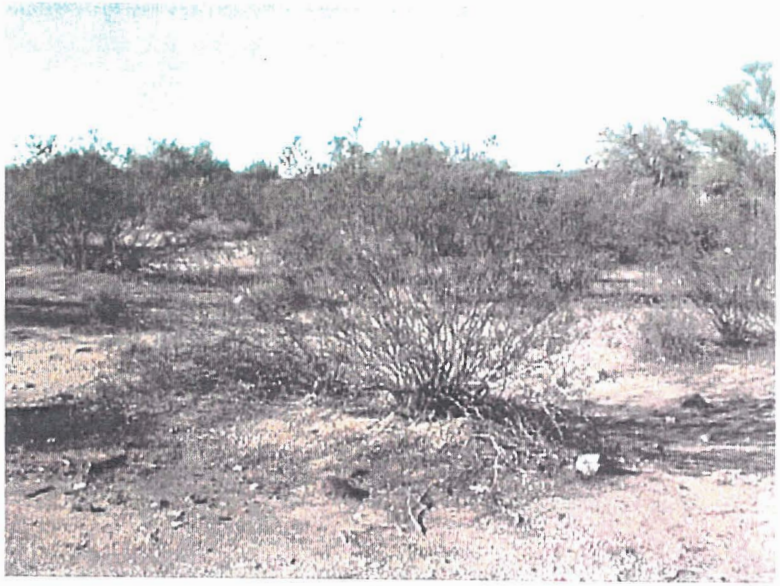
Reach 4, Photograph 22
Looking upstream in right overbank

Reach 4, Photograph 23
Looking downstream in right overbank

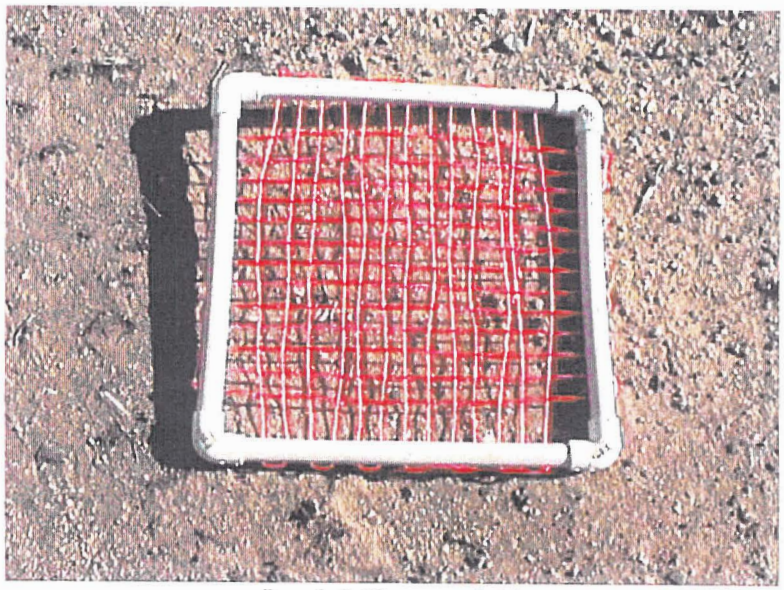


Reach 5, Photograph 27
Left overbank bed material

Reach 5, Photograph 28
Looking upstream in left overbank



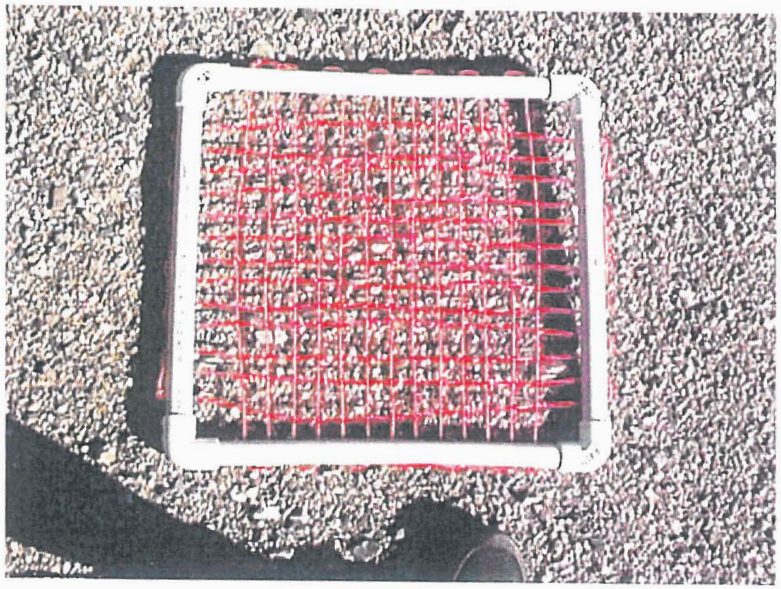
Reach 5, Photograph 29
Looking downstream in left overbank



Reach 5, Photograph 30
Right overbank bed material

Reach 5, Photograph 31
Looking upstream in right overbank

Reach 5, Photograph 32
Looking downstream in right overbank

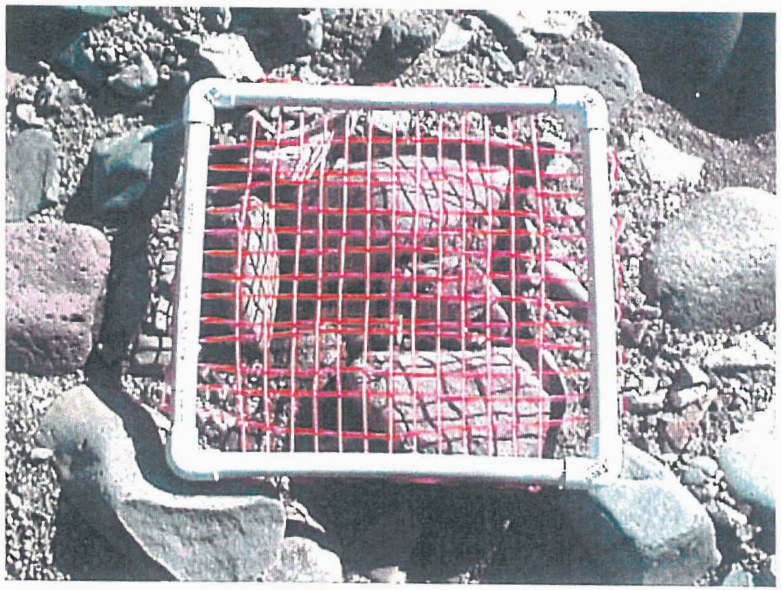


Reach 5, Photograph 33
Channel bed material

Reach 5, Photograph 34
Looking upstream in main channel

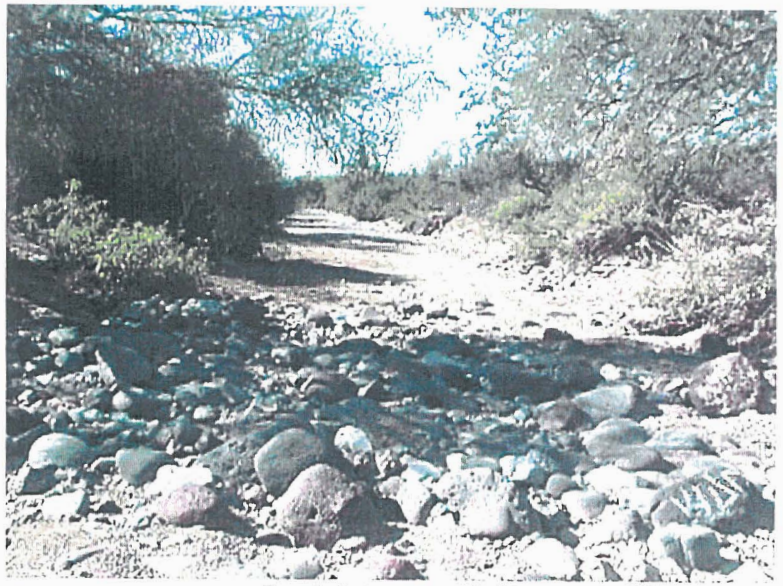
Reach 5, Photograph 35
Looking downstream in main channel

Reach 5, Photograph 42
Typical bed material in riffle



Reach 5, Photograph 43
Channel bed material

Reach 5, Photograph 44
Looking downstream in main channel



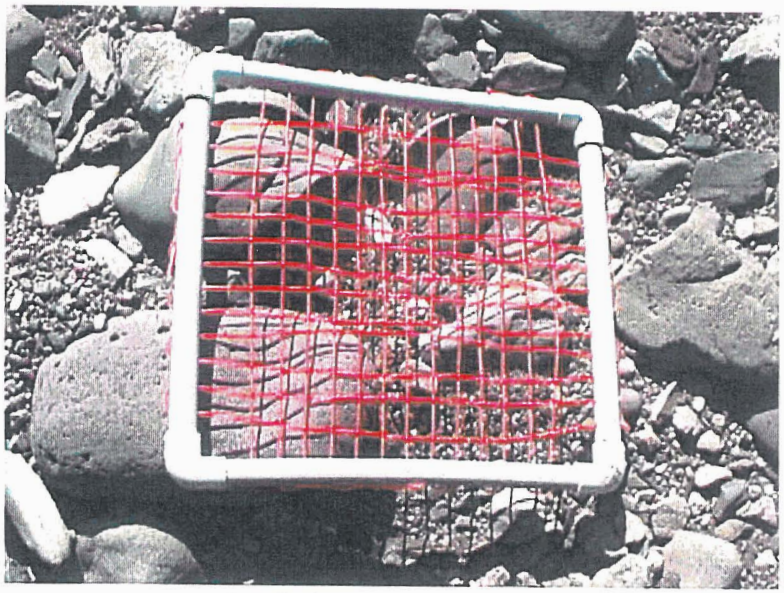
Reach 5, Photograph 45
Looking downstream in main channel

Reaches 6 - 9, 11 and 13, Photograph 79
Looking downstream in right overbank

Reaches 6 and 8, Photograph 80
Tributary channel bed material

Reaches 6 and 8, Photograph 81
Looking upstream in tributary channel

Reaches 6 and 8, Photograph 82
Looking downstream in tributary channel

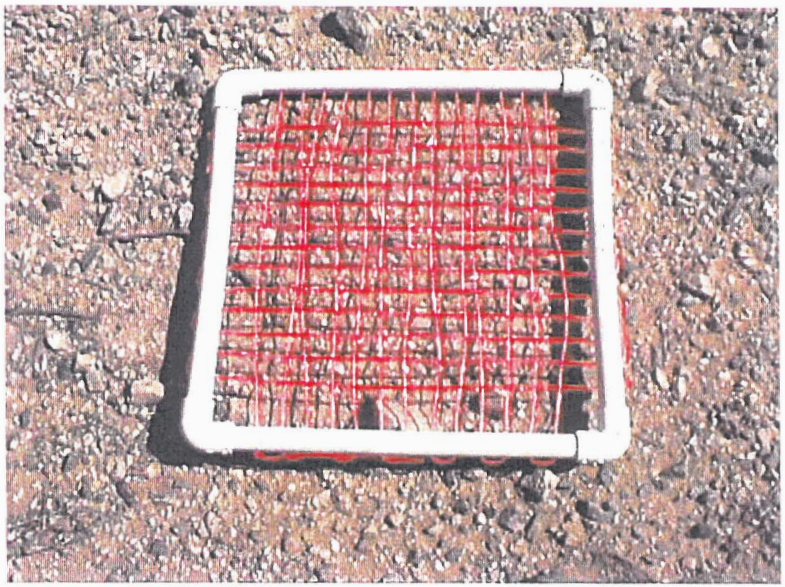


Reaches 6 - 9, 11 and 13, Photograph 52
Channel bed material

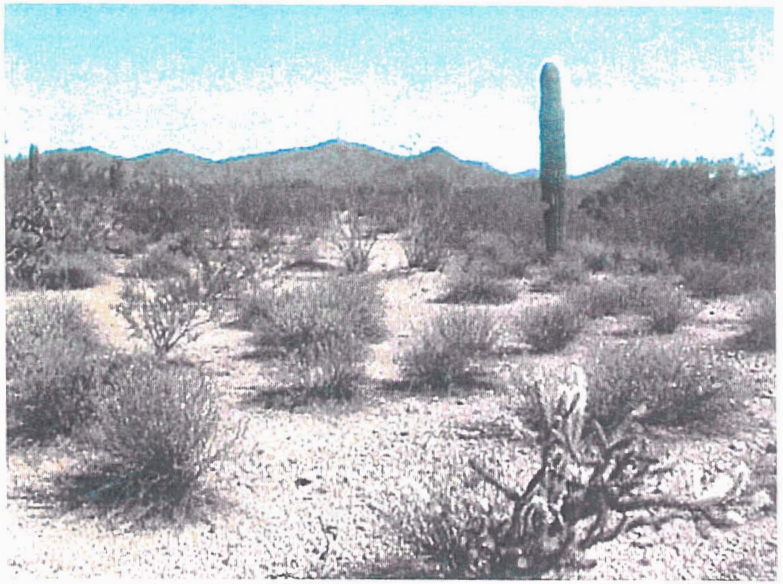
Reaches 6 - 9, 11 and 13, Photograph 53
Looking upstream in main channel

Reaches 6 - 9, 11 and 13, Photograph 54
Looking downstream in main channel

Reaches 6 - 9, 11 and 13, Photograph 62
Channel bed material



Reaches 6 and 8, Photograph 83
Right overbank bed material



Reaches 6 and 8, Photograph 84
Looking downstream in right overbank

Reaches 6 and 8, Photograph 85
Looking downstream in right overbank

Reaches 6 - 9, 11 and 13, Photograph 102
Left overbank bed material

Reaches 6 - 9, 11 and 13, Photograph 63
Looking upstream in main channel

Reaches 6 - 9, 11 and 13, Photograph 64
Looking downstream in main channel

Reaches 6 - 9, 11 and 13, Photograph 77
Inundation area bed material

Reaches 6 - 9, 11 and 13, Photograph 78
Looking upstream in right overbank

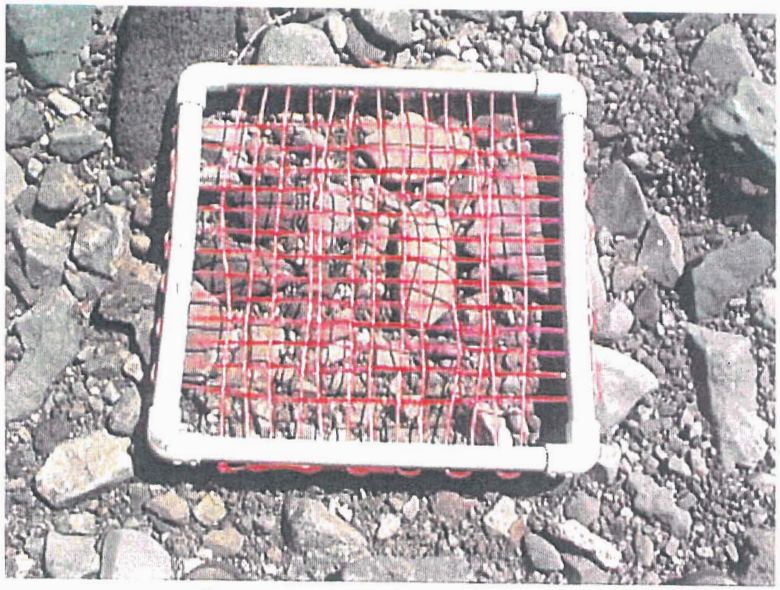
Reaches 6 - 9, 11 and 13, Photograph 103
Looking upstream in left overbank

Reaches 6 - 9, 11 and 13, Photograph 104
Looking downstream in left overbank

Reaches 10 and 12, Photograph 86
Left overbank bed material

Reaches 10 and 12, Photograph 87
Looking upstream in left overbank

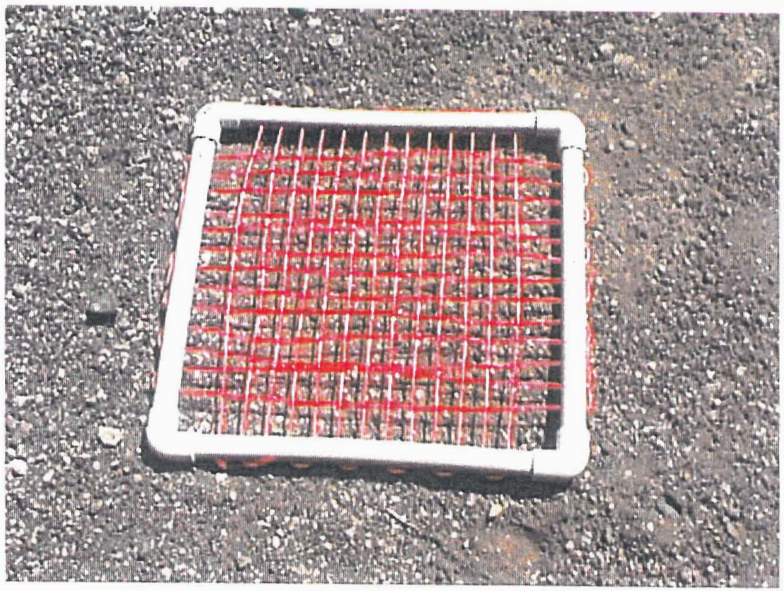
Reaches 10 and 12, Photograph 88
Looking downstream in left overbank



Reaches 10 and 12, Photograph 89
Left braid bed material

Reaches 10 and 12, Photograph 90
Looking upstream in left braid

Reaches 10 and 13, Photograph 91
Looking downstream in left braid

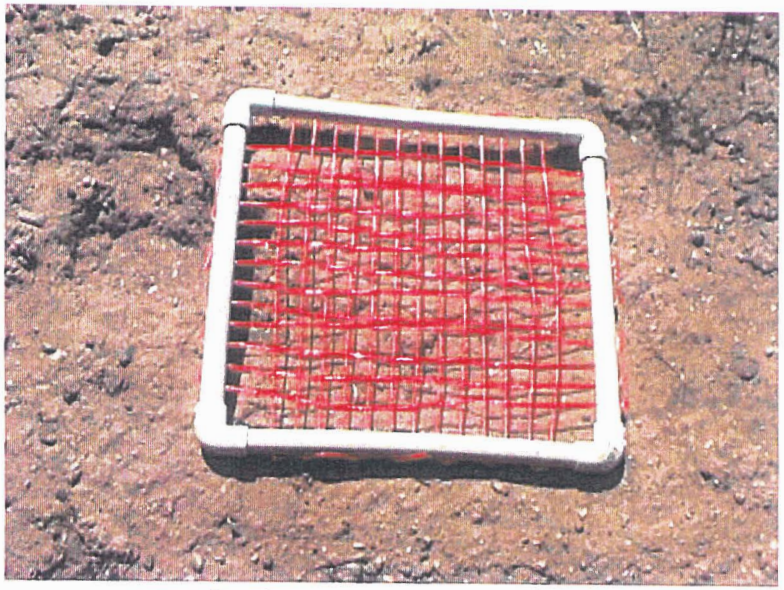


Reaches 10 and 12, Photograph 92
Island bed material

Reaches 10 and 12, Photograph 93
Right braid bed material

Reaches 10 and 12, Photograph 94
Looking upstream in right braid

Reaches 10 and 12, Photograph 95
Looking downstream in right braid



Reaches10 and 12, Photograph 96
Right overbank bed material

Reaches 10 and 12, Photograph 97
Looking upstream in right overbank

Reaches 10 and 12, Photograph 98
Looking downstream in right overbank

APPENDIX H

FLO-2D COMPUTER FILES

APPENDIX I

PUBLIC NOTICE

LOGAN SIMPSON DESIGN INC.

▷ Fax ▷ Memo ▷ Telecon ▷ Discussion ▷ Notes

To: Lisa Lauver

Fax Number:

Date: 8-29-01

Project:

From: Michael Book

Subject:

Discussion with:

Page ____ of ____ Total Pages

Copy to:

Original to follow: ▷ Yes ▷ No

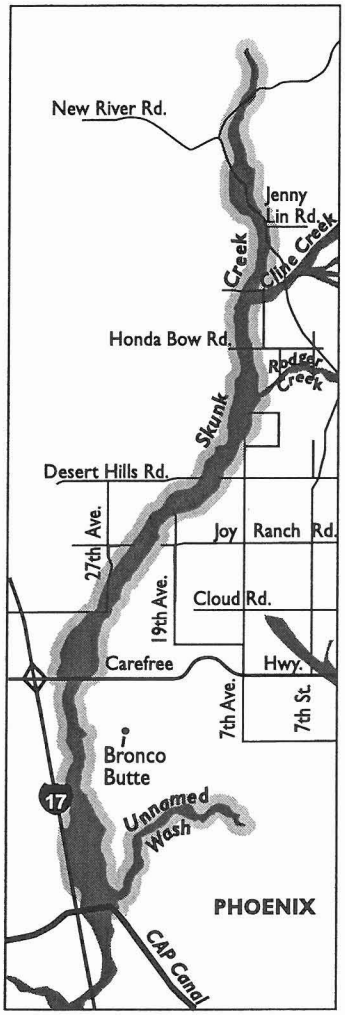
Here is the information that I received from Diane regarding public meetings for phase 1 of the Skunk Creek project.

The public meeting was on January 27, 2000. The other meeting that was held for phase 1 was hosted by the City of Phoenix. This meeting was on May 16, 2000 in the Paradise Valley Community Center in Phoenix.

Enclosed is the newspaper notice for the Jan. 27, 2000 meeting. The notice ran in the Foothills Sentinel on Jan 12 & 19, the Scottsdale Tribune on Jan 12 & 19, and in the Arizona Republic on Jan 12 & 19.

51 West Third Street Suite 450 Tempe, AZ 85281 Phone: (480) 967-1343 Fax: (480) 966-9232 e-mail: lsd@lsdaz.com

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

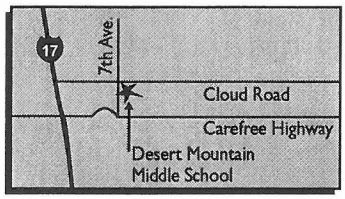


Study Area

PUBLIC MEETING

Skunk Creek Watercourse Master Plan

Central Arizona Project Canal north to the Tonto National Forest



January 27, 2000
6:30 p.m. - 8:00 p.m.
Desert Mountain Middle School
35959 North 7th Avenue
Phoenix, Arizona

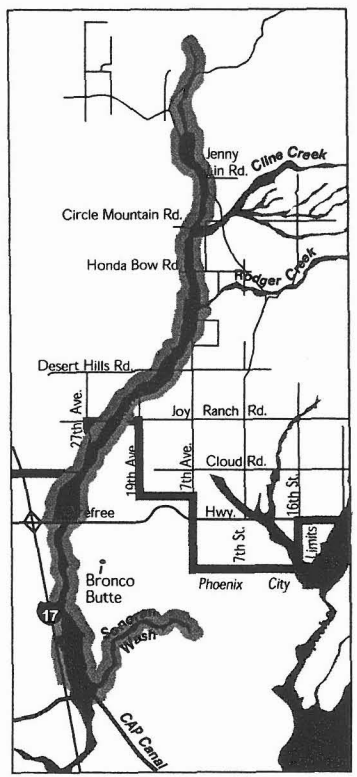
The Flood Control District of Maricopa County will conduct a public meeting for the Skunk Creek Watercourse Master Plan. The meeting will be held on Thursday, January 27, 2000 from 6:30 p.m. to 8:00 p.m. A brief presentation will be made at 6:45 p.m. Members of the Study Team will provide information on the watercourse master plan approach to floodplain management. Opportunities for the public to identify issues and concerns related to floodplain management of Skunk Creek will occur after the presentation.

The intent of the watercourse master plan is to provide the City of Phoenix, Maricopa County, and the public with a plan to manage the Skunk Creek floodplain. A watercourse master plan can reduce flood risks and protect the safety and welfare of the community.

A sign language interpreter will be made available upon request with 72 hours notice. Alternative format materials, FM or infrared listening devices are also available upon request with 72 hours notice. Additional reasonable accommodations will be made available to the extent possible within the time frame of the request. Please call Doug Williams at 602-506-1501 for more information.

Skunk Creek
Watercourse Master Plan

Skunk Creek
Watercourse Master Plan



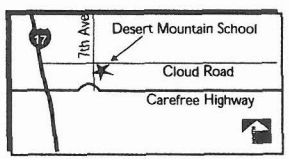
Study Area

Study Area

Phoenix City Limits

PUBLIC MEETING

Thursday, February 15, 2001
7:00 p.m. - 9:00 p.m.
Desert Mountain School
Cafeteria
35959 North 7th Avenue
Phoenix, Arizona



The Flood Control District of Maricopa County will hold a public meeting for the Skunk Creek Watercourse Master Plan on Thursday, February 15, 2001 from 7:00 p.m. to 9:00 p.m. A brief presentation will be made at 7:15 p.m.

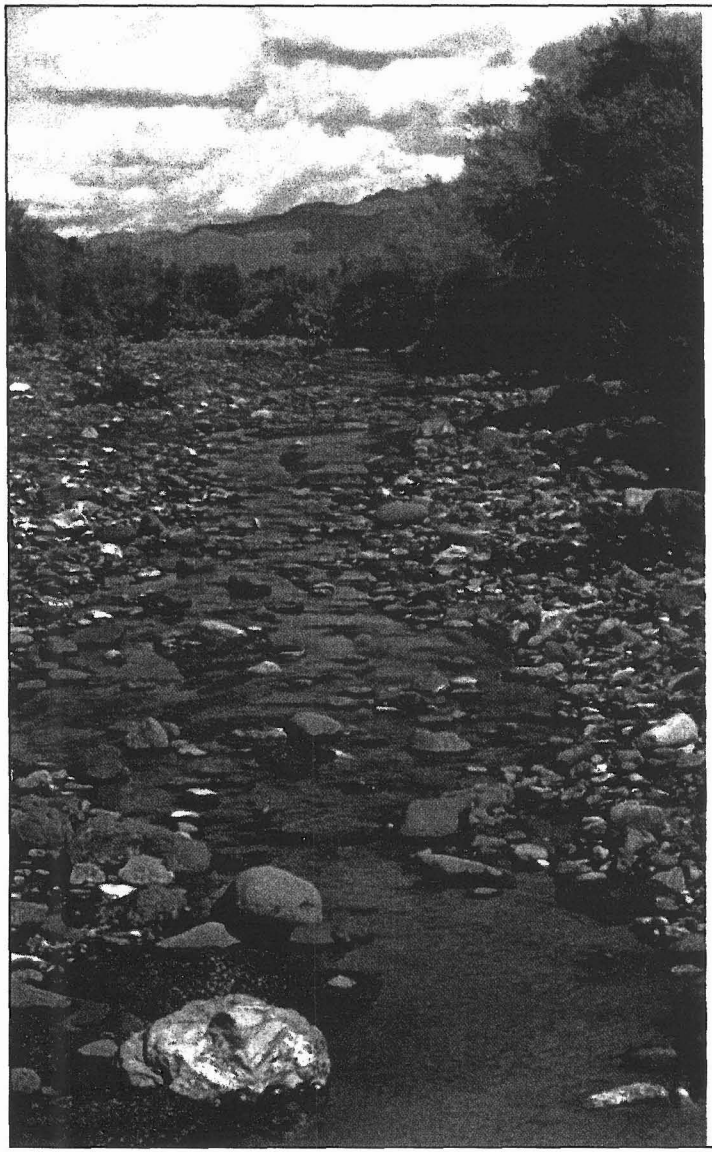
Members of the Study Team will provide information gathered and describe the various floodplain management alternatives for Phase 2 of the Skunk Creek Watercourse Master Plan. Phase 2 addresses the study area north of Carefree Highway. Following the presentation, the Open House format will be continued.

The intent of the watercourse master plan is to provide methods to manage the Skunk Creek floodplain. A watercourse master plan addresses flood and erosion risks to protect the safety and welfare of the community.

Please call Marilyn DeRosa at 602-506-4766 for more information.

A sign language interpreter will be made available upon request with 72 hours notice. Alternative format materials, FM or infrared listening devices are also available upon request with 72 hours notice. Additional reasonable accommodations will be made available to the extent possible within the time frame of the request.

Flood Control District of Maricopa County



The Flood Control District of Maricopa County (District) is currently conducting the second phase of the Skunk Creek Watercourse Master Plan. Phase II covers Skunk Creek from the Carefree Highway to just north of the New River Road Bridge. The intent of this study is to determine possible flood hazards and recommend strategies to alleviate potential flooding problems.

If you live along this portion of Skunk Creek, the District may contact you so they can measure precisely if a structure on your land is within the 100-year floodway. The results of these measurements could:

- Affect the location of the 100-year floodplain;
- Eliminate flood insurance requirements for property; and
- Determine if your residence is in an extreme flood hazard area.

The District appreciates your cooperation. Persons with questions can call Ms. Marilyn De Rosa, Project Manager at 602.506.4766, or email her at mdr@mail.maricopa.gov.

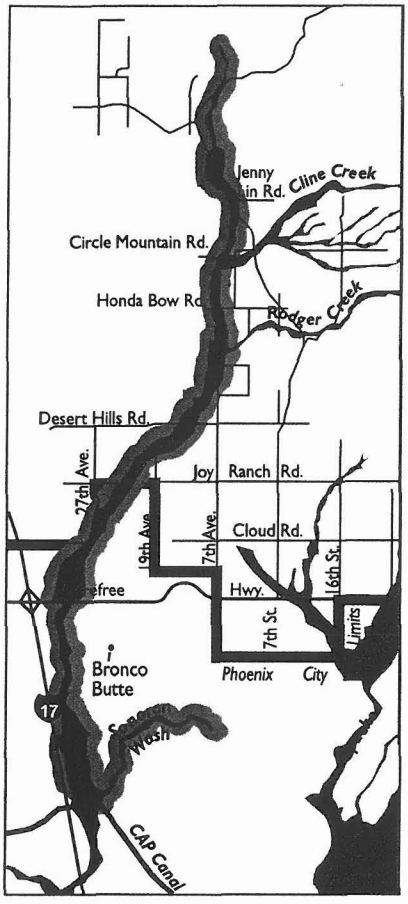
Flood Control District of Maricopa County

Skunk Creek
Watercourse Master Plan

Skunk Creek

Watercourse Master Plan

FINAL OPEN HOUSE

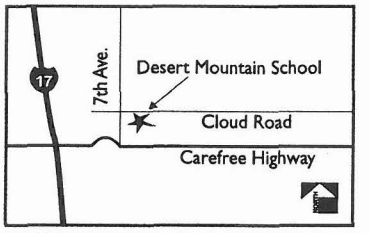


Study Area

Study Area

Phoenix City Limits

Thursday, June 28, 2001
5-8 p.m.
Desert Mountain School cafeteria
35959 North 7th Avenue
Phoenix, Arizona



MEETING LOCATION

The Flood Control District of Maricopa County will hold a public open house for the Skunk Creek Watercourse Master Plan on Thursday, June 28, 2001 from 5-8 p.m. The open house will be held at the Desert Mountain School, 35959 North 7th Avenue in Phoenix, Arizona. This will be the final public meeting for the Skunk Creek Watercourse Master Plan.

The purpose of the open house is to provide the public with the opportunity to comment on the recommended floodplain management alternative for the northern portion of Skunk Creek.

We invite you to stop by any time between 5-8 p.m. on June 28th to give us your input. The District's Study Team will be available to discuss the recommended alternative and to provide specific information on property within the study area.

Please call Marilyn DeRosa at 602-506-4766 for more information.

A sign language interpreter will be made available upon request with 72 hours notice. Alternative format materials, FM or infrared listening devices are also available upon request with 72 hours notice. Additional reasonable accommodations will be made available to the extent possible within the time frame of the request.

Flood Control District of Maricopa County

APPENDIX J

CORRESPONDENCE

EXHIBIT A

SCOPE OF WORK

Skunk Creek

Watercourse Master Plan Study

Contract FCD 99-23

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PROJECT DESCRIPTION

1.1. **General Description.** The Skunk Creek Watercourse Master Plan will develop and identify alternative plans for providing flood control along the Skunk Creek. Traditional structural flood control alternatives will be compared to non-structural flood control solutions based upon the investigation and determination of the potential lateral migration of Skunk Creek. The non-structural flood control alternatives will go beyond the use of traditional floodplain management tools to protect existing and future residents from the 100-year flood event, and the possible damages associated with the potential lateral migration of Skunk Creek. The Skunk Creek Watercourse Master Plan is a joint effort by the Flood Control District of Maricopa County and the City of Phoenix.

1.2 **Phasing.** The Project will be awarded to the selected CONSULTANT as a single contract, but scheduled in two distinct Phases. Phase I is from the Central Arizona Project (CAP) Canal north to the Carefree Highway, (approximately four [4] miles) including an unnamed tributary from the CAP Canal northeasterly (approximately [3] miles). Phase II is from the Carefree Highway northerly to the unincorporated community of New River (approximately 9 miles).

1.3 **Purpose.** The purpose for the Skunk Creek Watercourse Master Plan is to determine the potential lateral migration and hydraulic impacts, if any, of differing intensities of structural protection for the Skunk Creek. Phase I of this Study will compare the benefits and opportunities of a full-structural, a non-structural, and two community influenced flood control solutions. Phase II will determine the benefits and opportunities for a non-structural flood control solution where possible. It is anticipated that some structural flood control alternatives may need to be included in the Phase II non-structural solution; however, the overall solution for Phase II shall be non-structural in nature.

1.4 **Location.** Skunk Creek is located in the north-central portion of Maricopa County. The limits of the Upper Skunk Creek Watercourse Master Plan include Upper Skunk Creek from the CAP Canal north through the community of New River to a point about 700 feet upstream of the crossing of the New River Road, and the Unnamed Tributary (to be named Joe Lort Wash) northeast from Skunk Creek at the CAP Canal to the 7th Avenue alignment (Section 19/20 boundary, T5N, R2E).

1.5 **Agencies.** The following representatives will be receiving copies of project submittals and will act as a agency point-of-contact:

Doug Williams, AICP
Project Manager
Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009

Cindy White
Floodplain Management
City of Phoenix
201 West Washington Street
Phoenix, Arizona 85003

Ray Quay
Deputy Director, Planning Department
City of Phoenix
201 West Washington Street
Phoenix, Arizona 85003

1.6 **Contract Time.** The CONSULTANT shall complete Phase I within the contract period of 365 calendar days, which includes review time for the DISTRICT. The CONSULTANT shall complete the Phase II within the contract period of an additional 180 calendar days, which includes review time for the DISTRICT.

1.7 **Project References.** The CONSULTANT shall be provided the following data by the DISTRICT at the project Kickoff Meeting:

1.7.1 Aerial topographic mapping of Skunk Creek (not Unnamed) in digital format.

1.7.2 Hydrologic reports and models for Skunk Creek.

1.7.3 Hydraulic reports and models for Skunk Creek.

The DISTRICT will provide the CONSULTANT with base mapping from the DISTRICT's GIS system. Base mapping will include topography, existing floodplain and floodway boundaries, floodplain HEC-2 cross section locations, land ownership, land use types, soil types, and hydrologic basin boundaries and points of concentration. The land ownership maps will indicate whether property is publicly or privately held and the owning party. The CONSULTANT will use digital information provided by the DISTRICT to prepare base maps for the interim and final reports.

2. SCHEDULE

2.1. **Project Schedule.** Within 14 days of Notice To Proceed, the CONSULTANT shall submit a project schedule to the DISTRICT's Project Manager showing coordination meetings, dates of all proposed submittals for each of the tasks in the scope and significant project milestones. The CONSULTANT shall update this project schedule when appropriate.

2.2. **Schedule Format.** The schedule shall be developed in a computerized format that contains the anticipated beginning and end dates for the project tasks, the time duration of each task, a bar chart (Gantt Chart) showing the tasks and the overall duration of the project. The computer program MS PROJECT 98 or compatible is preferred. The CONSULTANT shall submit the schedule in both printed and digital format.

2.3. **Schedule Content.** The schedule shall provide for completion of the work within the contract time for both Phases unless the DISTRICT approves an extension. The schedule shall include, at a minimum, the major project milestones, project meetings, and submittal dates of deliverables.

2.4. **DISTRICT Review Period.** The CONSULTANT shall allow for a 2-week review period for review and comment by the DISTRICT and other involved parties, for each report and data submittal in the schedule.

3. CONTRACT WORK TASKS

3.1. **Project Management.**

3.1.1. The CONSULTANT shall appoint a Project Manager who shall be knowledgeable of the progress of each Phase of the project. The Project Manager shall be the same person listed in the CONSULTANT's Technical Proposal unless otherwise approved by the DISTRICT. The DISTRICT may request the replacement of the Project Manager if the DISTRICT determines that this would be in the best interest of the project.

3.1.2. The DISTRICT may terminate this agreement if the Project Manager is not available or if the CONSULTANT is unable to provide a replacement Project Manager acceptable to the DISTRICT.

3.1.3. The Project Manager shall be the point of contact for the DISTRICT.

3.2. **Subcontractor Management.** The work of any sub-CONSULTANT utilized by the prime CONSULTANT for this contract (i.e., civil design, structural design) shall be reviewed by the prime CONSULTANT for compliance with this scope of work and these specifications prior to submittal for review by the DISTRICT. In particular, all calculation sheets shall be initialed and dated by both a designer and a checker.

3.3. **Performance Evaluation.** A Performance Evaluation Form shall be given to the CONSULTANT at the preliminary meeting to provide the CONSULTANT with the criteria for doing the Performance Evaluations. The CONSULTANT and the DISTRICT at completion of the preliminary and final Phases of the project shall complete performance Evaluations. The DISTRICT will provide the standard evaluation form.

3.4. **Invoices.**

3.4.1. The CONSULTANT shall submit a quarterly estimation of the projected billing within 14 days of Notice to Proceed. Thereafter, this estimation shall be updated and submitted to the DISTRICT's Project Manager at least 10 days prior to the end of each quarter.

3.4.2. The CONSULTANT shall submit monthly (or other time intervals approved by the DISTRICT) invoices that reflect work accomplished during the invoice period. The invoices shall identify the contract number and shall include: the amount for each work task and subcontracted service identified in the negotiated fee proposal times the percent complete and a total for all work tasks; the amounts previously billed; and the amount due for the period.

3.4.3. Invoices shall be submitted to Accounts Payable, Flood Control District of Maricopa County, 2801 West Durango, Phoenix, Arizona 85009.

3.4.4. The CONSULTANT shall submit monthly progress reports that discuss project activities for the same time period as included in the monthly invoices. The report shall be brief and should be no longer than two typed pages. At a minimum, the monthly report shall contain the following:

3.4.4.1. A description of the work accomplished by task during the reporting month.

3.4.4.2. Percent (%) completed for the month and percent (%) cumulative completed for each task. The tasks shall be the same as the tasks contained in the project cost proposal.
3.4.4.3. A brief description of the work to be accomplished the following month.
3.4.4.4. A description of any problems encountered.

3.5. **Coordination.**
3.5.1. The Project Manager shall call the DISTRICT's Project Manager a minimum of once a week to provide a weekly progress report.
3.5.2. The CONSULTANT's Project Manager shall participate in regular coordination meetings (at least every two weeks) with the DISTRICT's Project Manager and in milestone coordination meetings in the development of the hydrologic and hydraulic analyses, alternative solutions and the recommended plan. The CONSULTANT is responsible for the minutes of any meetings. Whenever possible, coordination and milestone meetings should be combined.
3.5.3. The Project Manager shall keep the DISTRICT informed of all coordination with outside agencies and other affected parties.
3.5.4. The Project Manager shall include copies of minutes of meetings, telephone conversations, and correspondence to the DISTRICT in a Correspondence Appendix to the Skunk Creek Watercourse Master Plan Study Report.

3.6. **Meetings.**
3.6.1. The CONSULTANT shall meet with officials from the City of Phoenix, the unincorporated community of New River, and Maricopa County. The purpose of these meetings is to identify local flooding problems and obtain information on current and planned private or public works projects, channel modifications, storm-drainage systems, development, and corporate limits.
3.6.2. Meetings with other agencies and utilities shall be held as required and shall generally be held at their offices. The maximum number of meetings authorized under this contract is five (5). The DISTRICT shall be kept informed of all such meetings, and shall attend the meetings when needed. The DISTRICT shall be copied on all meeting minutes.
3.6.3. Meetings with the DISTRICT shall generally be held at the DISTRICT offices.
3.6.4. Kickoff Meeting. The CONSULTANT shall meet with the DISTRICT to submit the project schedule that shall include dates of all proposed submittals and review meetings, and to discuss the schedule and the tasks necessary to accomplish it. The CONSULTANT shall bring the key project team members, including the project checkers, to the meeting to introduce them to the DISTRICT staff who will be working on the project. The DISTRICT will give the aerial topographic mapping to the CONSULTANT at this time.
3.6.5. Project Review Meetings. Following the review of project deliverables, the CONSULTANT shall meet monthly with the DISTRICT's Project Manager and project review team to review the overall project status and to discuss the DISTRICT's review comments that will be provided to the CONSULTANT at the meeting. The CONSULTANT shall be prepared to discuss and address the comments. Any problems shall be identified and discussed. The CONSULTANT will provide refreshments (both food and beverage) and keep minutes of all regularly scheduled project review meetings and public meetings.

3.6.6. Performance Evaluations. The Performance Evaluation Form shall be given to the CONSULTANT at the preliminary meeting to provide the CONSULTANT with the criteria for doing the Performance Evaluations. The CONSULTANT and the DISTRICT shall complete the Performance Evaluations at the Final Submittal Meeting. The DISTRICT will provide the standard evaluation forms.

3.7. **Site Visits.** The CONSULTANT shall visit the project site as necessary to become familiar with existing conditions and to facilitate the design and preparation of the contract documents.

3.7.1. It is anticipated that the CONSULTANT shall make at least seven (7) site visits. The first visit shall be at the inception of the Skunk Creek Watercourse Master Plan Study to become familiar with the area. At a minimum, the first site visit shall be coordinated with the DISTRICT's Project Manager. The CONSULTANT shall also visit the site with the DISTRICT's Project Manager at the preferred alternative selection phase of the Watercourse Master Plan. The purpose of this second site visit is to verify that conditions along the Skunk Creek and the Unnamed Tributary have not significantly changed. Five (5) other visits are allotted for the purpose of formulating and evaluating alternatives.

3.8. **Data Collection and Analysis.** The CONSULTANT shall rely upon both original and existing data to determine the lateral migration of Skunk Creek. The CONSULTANT shall collect and review pertinent data from the DISTRICT and other outside sources. The CONSULTANT shall research and locate the existence of historical photographs, historical surveys, existing remote sensing data, and geomorphic data. Other data to be collected will include materials relevant to the project. Examples are: previous flood hazard reports and hydrology for the study area; existing topographic mapping; historical flooding information; as-built plans for existing structures; FEMA Flood Hazard Boundary Maps and any Letters of Map Amendment and/or Revisions, and other pertinent information.

3.8.1. The DISTRICT will provide the following data at the Kickoff meeting:

3.8.1.1. Aerial topographic mapping in digital format.

3.8.1.2. Floodplain and floodway boundaries and HEC-2 cross sections in digital format.

3.8.1.3. Land use mapping, soils mapping, hydrology sub-basin boundaries, and parcel maps in digital format.

3.8.1.4. Hydrologic reports and models for Skunk Creek.

3.8.1.5. Hydraulic reports and models for Skunk Creek.

3.8.2. The CONSULTANT shall prepare a report summarizing the data collection effort. The CONSULTANT shall submit a draft of this report within 120 days of the Notice to Proceed. The final report will be included in the Skunk Creek Watercourse Master Plan Report.

3.9. **Field Surveying and Mapping.** The CONSULTANT shall perform field surveys on all major road crossings identified with points of concentration in the hydrology model of the Unnamed Wash and at roadway crossings of Skunk Creek that have been modified since the date of the current FEMA FIS for Skunk Creek. Survey measurements at each location will include one cross-section taken at a point 200 feet downstream of the road and one taken along the road.

3.9.1. The CONSULTANT shall prepare aerial mapping for the Unnamed Wash tributary at a scale of 1"=200' with a two (2) foot contour interval. The mapping will be provided in conformance with FEMA 37, latest edition as of the date of Notice to Proceed. This mapping shall extend a minimum of 100 feet beyond the estimated limits of the recommended alternative. The mapping shall be provided on the same horizontal and vertical datum as used for the current Skunk Creek FEMA FIS study mapping. Five (5) sets of 9"x9" color stereo contact prints shall be provided. Three are for use by the CONSULTANT and 2 sets are to be provided to the DISTRICT.
3.9.2. The CONSULTANT shall provide field mapping in AutoCAD 14 format that meets the DISTRICT's CADD standards and formatting requirements for conversion to GIS.
3.9.3. The CONSULTANT shall conduct field surveys necessary to complete the preliminary design of the recommended plan.
3.9.4 A registered land surveyor shall supervise and stamp all survey work.
3.9.5 Field surveys of bridges, culverts, and drainage structures are to be obtained by the CONSULTANT when as-built plans are not available.
3.9.6 The CONSULTANT shall provide color rectified digital aerial ortho-photographs of the study reach of Skunk Creek and the Unnamed Wash. The photographs shall be at a scale of 1"=400' and in a TIFF digital file format.
3.9.7 The CONSULTANT shall document all project survey data in a Project Survey Report. Copies of all survey note books or printout of digital files developed with data collectors will be provided. The horizontal and vertical benchmarks used for the survey shall be documented along with documentation of the datum upon which the benchmark was originally established. Conversion to other datums as required herein shall be documented in the report. A summary table of the ERM's and benchmarks shall be included.

3.10. **Hydrologic Analysis.** Alternative designs for the Skunk Creek Watercourse Master Plan shall be based upon a floodway/floodplain capable of conveying the 100-year flood peak flow. Those flows shall be predicted using hydrologic computer models from the Flood Insurance Studies for Skunk Creek, and additional studies of the Unnamed Tributary to be performed by the CONSULTANT. The estimated future (build-out) condition for the watershed shall be used. A new HEC-1 model, meeting current DISTRICT Standards, (Drainage Design Manual for Maricopa County, Volume I Hydrology, January 1, 1995 version) shall be prepared for the East Biscuit Flats area in support of the floodplain delineation of Unnamed Tributary. The existing and newly generated future condition HEC-1 models from the Flood Insurance Studies shall be modified to also provide estimates of the existing and future condition 2-year and 10-year peak discharges. The peak discharges for the 2- and 10-year events may be estimated from USGS gage data and/or USGS regression equations. Hydrographs from the HEC-1 models may be adjusted to match the estimated peak discharges for use in sediment modeling and geomorphology. The HEC-1 models used for alternative analyses may also include more detailed channel routing reaches that match the reaches used for estimating geomorphic and sediment reach-averaged parameters. The 100-year HEC-1 model used for alternative analyses shall include the effects of over bank storage lost to full encroachment of the flood fringe areas. The CONSULTANT will work with the DISTRICT staff in a team effort to estimate future condition factors affecting rainfall losses, time of concentration, and routing. The sub-basin boundaries will remain the same as for existing conditions. The DISTRICT staff will be responsible for using the DISTRICT GIS system to provide estimates of build-out condition, percent

impervious values based on current projected land use densities, provide any revised watershed maps, and for participation in team meetings to agree on any necessary revisions to T_c and routing parameters. The CONSULTANT will be responsible for revising the HEC-1 models, re-optimizing routing parameters if necessary, performing confidence checks on the results and extracting hydrographs at each change in discharge location in the HEC-2 models.

3.11. **Hydraulics Analysis.**

3.11.1. Hydraulic Computations and Water Surface Profiles. The CONSULTANT shall complete hydraulic computations and water surface profiles consistent with the procedures as provided in the Drainage Design Manual for Maricopa County, Volume II Hydraulics, and the supplement to this scope of work.

3.11.2. The CONSULTANT shall update the Phase I Skunk Creek HEC-2 computer models developed for FIS purposes, to include existing, approved or planned developments within the floodplain. Only developments that have occurred since the completion of the topographic mapping for the current FIS, and that occur no later than 60 days after the date of contract signing, are included. The HEC-2 model will be converted to an HEC-RAS format model for the Skunk Creek. The updated FIS will be prepared in a Technical Documentation Notebook format and will be submitted to the City of Phoenix and the DISTRICT. Submittal to FEMA is not part of this contract.

3.11.3. The CONSULTANT shall develop a new HEC-RAS computer model for the Unnamed Tributary for FIS purposes and will submit it to the City of Phoenix and the DISTRICT. Submittal to FEMA is not part of this contract. The model provided by the CONSULTANT will be converted to a single HEC-RAS format model, and combined with the Skunk Creek model. The model will be used for existing and future conditions.

3.11.4. The CONSULTANT shall modify the combined HEC-RAS model to document the hydraulic conditions resulting from each of the four (4) project alternatives during the development of Phase I and three (3) project alternatives for Phase II of the Skunk Creek Watercourse Master Plan as further defined in Task 3.14. Floodplain encroachments for each alternative shall be documented to ensure that they are consistent with the procedures in the supplement to this scope of work. The DISTRICT may increase the number of modeled alternatives with authorization of an optional Alternatives Analysis (contingency) task.

3.11.5. The CONSULTANT will prepare and make the initial application for the renaming of Unnamed Wash to Joe Lort Wash.

3.12. **Sedimentation.**

3.12.1. Scour Analysis. Local scour depths for the study reach will be estimated as necessary. Bridge and culvert scour for existing structures shall be estimated at each paved crossing of Skunk Creek.

3.12.2. HEC-6 Models. Base condition HEC-6 models will be developed for the entire study length. The sediment study will establish base conditions for the existing condition. The HEC-RAS model from Task 3.11 will be converted to an HEC-2 data set and modified appropriately for use in HEC-6. The models will be used to assess potential reaches of aggradation or degradation. The impact of sediment deposition or removal during major flood events will be evaluated for each of the alternatives.

3.12.3. Sediment Sampling and Testing. The CONSULTANT shall obtain and test samples of the existing channel bed and banks throughout the study

reaches. Up to 60 samples may be obtained at up to 20 locations determined by the CONSULTANT. Representative samples shall be obtained from the channel bed (active transport layer) and primary channel banks. Visual estimates of bank sediment characteristics may be substituted for physical samples, at the discretion of the CONSULTANT, where bank conditions would prevent normal sampling procedures. In addition, pebble count samples shall be obtained for the surface layer of the channel bed at each sampling location. The sampling procedures shall be consistent with procedures described in the Bureau of Reclamation's, Computing Degradation and Local Scour, January 1984, or the US Army, Corps of Engineers, Sedimentation Investigations of Rivers and Reservoirs, 31 October 1995. Gradations of the sediment samples shall be plotted for both the channel bed and banks. Changes in the gradations throughout the study reach shall be documented. Test data, gradation plots, plots of the longitudinal change in size, and any other supporting data shall be included in a Technical Data Appendix of the Skunk Creek Watercourse Master Plan Report.

3.12.4. The CONSULTANT shall estimate sediment yield using results from previous regional studies and sediment transport functions for major tributaries assuming transport control rather than supply control. Selected sediment transport functions are to be used in the analysis employing the flood hydrographs from the rainfall-runoff (HEC-1) model of the watershed. Sediment yield estimates from regional studies and from the sediment transport functions are to be the basis of estimating sediment yield for both the existing and the future developed conditions.

3.13. **Potential Lateral Migration Analysis.**

3.13.1. The CONSULTANT shall estimate the potential lateral migration of Skunk Creek and the Unnamed Tributary, in conjunction with the sedimentation modeling, by analyzing historical information gathered during the data collection phase, and by geological and geomorphic investigations. The methods for determining the lateral migration are to include:

3.13.1.1. Field Investigations. The CONSULTANT shall conduct field visits to the study reach to observe and document channel and floodplain conditions, to collect sediment samples, to observe evidence of recent and historical flood impacts, to document evidence of past lateral channel movement, to describe soil profiles and surficial characteristics, and to collect data for use in the lateral stability assessment.

3.13.1.2. Stream classification. The CONSULTANT shall prepare a stream classification description for each study reach that documents key geomorphic features, describes on-going channel processes, mechanisms for lateral movement, channel and floodplain characteristics, and hydrologic processes. The stream classification is to serve as the basis for selection of appropriate engineering and geomorphic analysis techniques.

3.13.1.3. Interpretation of historical maps and photographs. The CONSULTANT shall document and compare historical channel positions to identify the location and magnitude of historical change and lateral movement. The CONSULTANT shall prepare maps showing channel boundary locations during the period of record.

3.13.1.4. Geomorphic mapping of surficial landforms. The CONSULTANT shall prepare maps of geologically recent landforms along

the study reach. The objective in preparing the mapping is to identify evidence of geologically recent lateral channel movement, and to constrain the limits of potential movement by the presence of geologically old surfaces. The CONSULTANT is to determine the presence and degree of development of desert varnish, paleoflood evidence, soil profile development, carbonate stage (caliche), archaeological information, surficial characteristics, and other available information to distinguish geomorphic surfaces adjacent to the river corridor. The CONSULTANT shall provide a backhoe and operator to excavate up to 60 soil pits at 20 locations to facilitate soil descriptions by the CONSULTANT.

3.13.1.5. Dating of geomorphic surfaces. The CONSULTANT shall date geomorphic surfaces using relative dating techniques such as soil descriptions, desert varnish, the presence of caliche, and archaeological information if available.

3.13.1.6. Empirical geomorphic relationships. The CONSULTANT shall apply established empirical geomorphic relationships that describe channel pattern relationships, channel planform, and channel geometry. The objective of these analyses is to predict lateral and vertical channel movement, and to identify stable and unstable reaches.

3.13.1.7. Scour depths. The long-term and general scour depths shall be estimated using appropriate methodologies to be determined by the CONSULTANT.

3.13.1.8. Equilibrium slope. Equilibrium slope shall be estimated using appropriate methodologies to be determined by the CONSULTANT in conjunction with the DISTRICT.

3.13.1.9. Prudent Line. The prudent line approach defined in the Albuquerque Metropolitan Arroyo Flood Control Authority Sediment and Erosion Design Guide (November 1994) shall be applied to each study reach.

3.13.1.10. Empirical Relationships. Empirical relationships and regime-type equations determined by the CONSULTANT shall be applied to estimate the expected direction and nature of future channel evolution.

3.13.1.11. Armoring. The potential for channel bed armoring will be evaluated, and the depth of scour required to form an armor layer shall be estimated using appropriate methodologies to be determined by the CONSULTANT.

3.13.2. The CONSULTANT shall prepare a Lateral Migration Analysis Report that describes the results of the tasks for determining the potential lateral migration of Skunk Creek and the Unnamed Tributary. The report shall discuss how the potential lateral migration was determined, and how it may effect flood control issues within the area. The CONSULTANT shall submit a draft report for review and comment. The CONSULTANT shall address all appropriate comments when the Lateral Migration Analysis Report is incorporated into the final draft of both Phases I & II of the Skunk Creek Watercourse Master Plan Reports, up to the level of effort defined in the fee proposal.

3.14. **Flood Warning**. The consultant will prepare recommendations for flood warning for Skunk Creek and Joe Lort Wash. The recommendations will be conceptual in scope, but will include the following elements: (1) evaluation of the need for flood warning, (2) assessment of the DISTRICT's existing ALERT system for providing the needed level of flood warning, if any, (3) assessment of flood warning needs for each of the defined

alternatives, (4) recommendations for enhancements of the DISTRICT's existing ALERT system to provide the recommended level of warning, and (5) identification of emergency response agencies and mechanisms.

3.15. **Alternatives Analysis.** The CONSULTANT shall conduct initial studies in order to obtain the optimum combination of flood control features. Alternate methods, features, materials, etc., shall be identified.

3.15.1. Alternatives Formulation and Analysis.

3.15.1.1. The CONSULTANT shall identify a minimum of four (4) possible project alternatives for Phase I, (south of the Carefree Highway) based on the following floodplain management policies: one non-structural alternative, two partial structural alternatives, and one structural alternative. Phase II (above the Carefree Highway) shall identify three (3) possible project alternatives: one non-structural, one partial structural and one structural.

3.15.1.2. Those alternatives that can be initially eliminated with minimal analysis shall be identified and eliminated from further consideration. The eliminated alternatives shall be documented in the Skunk Creek Watercourse Master Plan. Recommendations, preferences, and comments from applicable public meetings shall be considered, and additional alternatives shall be developed or existing alternatives may need to be modified.

3.15.1.3. The project alternatives may include alternative design concepts ranging from a natural undisturbed appearance to fully developed multi-use type improvements, alternative alignments, alternative encroachments into the floodway fringe, and alternative construction materials.

3.15.1.4. Project alternatives to be considered include, but are not limited to the following:

3.15.1.4.1. A minimal improvement alternative.

3.15.1.4.2. A typical armored bank with full development of the floodplain fringes.

3.15.1.4.3. A Master Plan that avoids construction in the floodplain, leaving Skunk Creek in its natural state with appropriate setbacks for the potential lateral migration.

3.15.1.4.4. A less than full build-out alternative.

3.15.1.5. Groundwater Recharge Considerations. The final selected alternatives, four (4) for Phase I and three (3) for Phase II, shall include consideration of groundwater recharge enhancement techniques including gabions, swales, dry wells, sand tanks, and small dams along the Skunk Creek in accordance with State Statute 48-3609.01, Watercourse Master Plans. The effects of each alternative on the existing groundwater recharge capacity of the Skunk Creek and the Unnamed Tributary shall be estimated and documented in the Alternatives Formulation report and the Skunk Creek Watercourse Master Plan Report. The documentation shall include a comparison of effects using the existing condition groundwater recharge capacity as a basis. That basis is to be compared with the groundwater recharge capacity of each project alternative, including and excluding recharge enhancement techniques.

3.15.1.6. Alternatives Comparison. The CONSULTANT shall submit drawings and narrative descriptions of the potential alternatives to the

DISTRICT for review. The drawings shall be sufficient in detail to describe and compare the alternatives, and to identify the advantages and disadvantages of each. The CONSULTANT shall base the alternatives on topographic mapping and hydrology provided by the DISTRICT, and on new information developed for this study.

3.15.1.7. The CONSULTANT shall meet with the DISTRICT to review and discuss the alternatives, and to select the alternatives for further consideration. Only four (4) major alternatives are authorized for detailed evaluation in the base contract for Phase I (downstream of the Carefree Highway) and three (3) for Phase II (upstream of the Carefree Highway).

3.15.1.8. The CONSULTANT shall evaluate a total of seven (7)-selected alternatives at a comparative level of detail, based upon generalized hydraulics and cost estimates, to determine the engineering feasibility and approximate costs.

3.15.1.9. The CONSULTANT shall evaluate the selected alternatives for the potential benefits that the alternative may have on adjacent property.

3.15.1.10. The CONSULTANT shall prepare an Alternatives Formulation Report for both Phase I and Phase II that shall describe all the alternatives. The report shall discuss the selected alternatives, the discarded alternatives, the results of the alternative analysis, and the associated cost estimates. The report shall also include discussion on public preferences, environmental impacts, effects on groundwater recharge, and the overall success of each alternative in meeting the objectives of the Watercourse Master Plan. The CONSULTANT shall submit a draft report for each Phase for review and comment. The CONSULTANT shall address all appropriate comments before the Alternatives Formulation Reports are incorporated into the final draft of the Skunk Creek Watercourse Master Plan Report.

3.15.1.11. Based on the planning influences analysis, existing landscape character (Task 3.20), and input from the public (Task 3.25), agencies and the DISTRICT, the planned or desired landscape character of the project area will be developed to determine an appropriate landscape design theme for flood control management alternatives. The planned landscape character will respond to the technical considerations proposed in each of the existing landscape character units. Perspective sketches and illustrative sections will be developed and will be used to communicate the planned landscape character of each unit. For Phase I of the project, up to four existing landscape character units are anticipated and four flood management alternatives evaluated. One sketch will be prepared to illustrate the planned landscape character for each unit for each alternative or a total of 16 sketches in Phase I. For Phase II, up to eight existing landscape character units are anticipated in conjunction with evaluation of three flood management alternatives. One sketch will be prepared to illustrate the planned landscape character for each unit for each alternative or a total of 24 sketches in Phase II.

3.16. **Biological Survey Documentation and Report.** The purpose of the biological survey and report is to identify current vegetative conditions in the study area and the potential existence of federally listed and proposed threatened and endangered species (T&E species), designated critical habitat for T&E species, and Wildlife of Special Concern in Arizona (WSCA) as described by the Arizona Game & Fish Department

(AGFD). Furthermore, the biological survey will identify any habitat that potentially supports any listed or proposed T&E or WSCA species. The DISTRICT'S goal is to develop the appropriate documentation of the project area in order to help with the planning process.

3.16.1. Study Area. The area to be studied includes Upper Skunk Creek as described in the General Description and Location.

3.16.2. Listed or Proposed Threatened and Endangered Species and Wildlife of Special Concern in Arizona.

3.16.2.1. This task is not authorized with the Notice to Proceed and may be authorized in writing by the DISTRICT. The CONSULTANT shall submit separate cost estimates for this work in the fee proposal and all invoices shall separately identify costs for work under this paragraph.

3.16.2.2. The CONSULTANT shall request an inventory of the T&E and WSCA species that potentially inhabit the project area from the US Fish and Wildlife Service (USFWS) and the AGFD.

3.16.2.3. Based on the results of the inventory request, the CONSULTANT shall conduct a non-intensive field reconnaissance of the project area to determine the potential existence of the T&E and WSCA species, as well as habitat that potentially supports these species, in the project area. If the field reconnaissance identifies the potential existence of T&E species, WSCA species, or habitat that potentially supports these species, the CONSULTANT shall assess the potential adverse affects of the proposed project alternatives on the T&E and WSCA species, as well as the potential adverse affects on the species' habitats.

3.16.2.4. The CONSULTANT shall prepare a brief letter report documenting the results of the reconnaissance. The letter report shall document existing general vegetation communities, habitat types and species observed, and areas within the project that may meet the habitat requirements for threatened or endangered species. Habitat value will be assessed for the study area as high, moderate, or low. The CONSULTANT shall also include recommendations for further study, including intensive surveys and a Biological Assessment, if required.

3.16.2.5. The CONSULTANT shall coordinate with the DISTRICT, USFWS, ADGF, and others as appropriate to determine the need and specific requirements for an intensive biological survey.

3.16.3. Reconnaissance Biological Surveys.

3.16.3.1. This task is not authorized with the Notice to Proceed and may be authorized in writing by the DISTRICT. The CONSULTANT shall submit separate cost estimates for this work in the fee proposal and all invoices shall separately identify costs for work under this paragraph.

3.16.3.2. The CONSULTANT shall perform a non-intensive biological field reconnaissance and prepare appropriate documentation to identify existing and potential habitat value. The documentation will be used by the DISTRICT and consulting parties to guide discussions and in preparation for the acquisition and review of biological clearances within the study area. Biological clearances are not included as part of this scope of work.

3.16.3.3. The CONSULTANT shall conduct a biological survey of areas that may be included in the project alternatives requiring construction or creating adverse biological impacts. The survey shall document existing general vegetative communities utilizing aerial photography and field

inspection. The limits of the vegetative communities shall be digitally mapped as a layer to the topographic mapping to allow superimposing of the project alternatives and the extent of project impacts. A description of the existing vegetation shall be provided in a report. During the survey, the CONSULTANT shall document predominant species identified. Species may include both terrestrial and aquatic species.

3.16.3.4. Based on a field investigation of vegetative communities, the CONSULTANT shall document whether the project alternatives contain any suitable habitat (including wetlands and riparian areas) that may potentially support-listed species, as protected by the Endangered Species Act of 1973, and supplements. All areas will be assessed for habitat quality and rated as high, moderate or low.

3.16.3.5. Wetlands Delineation.

The DISTRICT will provide wetlands delineation information required for completion of this Study, if necessary. The CONSULTANT shall consider this information in the formulation and evaluation of the project alternatives and the planning influences analysis. No separate payment will be made for this task. All costs are to be included in Tasks 3.15 and 3.19.

3.17. **Jurisdictional Delineation.** The CONSULTANT shall prepare base data for a Jurisdictional Delineation, in accordance with Army Corps of Engineers (ACE) requirements and section 404 procedures. The base data shall be submitted to the ACE for preparation of a Jurisdictional Delineation. The limits of the jurisdictional delineation prepared by the ACE shall be digitally mapped as a layer to the topographic mapping to allow superimposing of the project alternatives and the extent of project impacts. The above work is not authorized with the Notice to Proceed. In the event the ACE elects to have the CONSULTANT prepare the Jurisdictional Delineation, the DISTRICT may elect to authorize the work to perform the actual delineation. The CONSULTANT shall submit separate cost estimates for the additional work in the fee proposal and all invoices shall separately identify costs for performing the actual Jurisdictional Delineation.

3.18. **Hazardous Waste Inventory.**

3.18.1. This work is not authorized with the Notice to Proceed and may be authorized in writing by the DISTRICT based upon the results of the reconnaissance. The CONSULTANT shall submit separate cost estimates for this work in the fee proposal and all invoices shall separately identify costs for work under this task.

3.18.2. The CONSULTANT shall prepare a Hazardous Waste Inventory and records search of state and local historical information of the Study Area. The purpose is to list the documented known areas of improperly disposed waste such as auto fluff disposal and illegal landfills and to generally locate areas that may be within the floodplain, flood way and fringe areas. Where possible, the CONSULTANT shall list the potential hazards which may include a general waste characterization, estimated volume, location and general description of the area as either described in the documentation search, or described in local or municipal agency information surveys. The limits of the hazardous waste inventory will be 500 feet on either side of the Skunk Creek and Unnamed Wash channel banks.

3.19. **Historic Property Documentation, Inventory and National Register of Historic Eligibility Assessment.** The DISTRICT will provide archeological information required for completion of this Study. The CONSULTANT shall consider this information in the formulation and evaluation of the project alternatives and the planning influences analysis. No separate payment will be made for this task. All costs are to be included in Tasks 3.15 and 3.19.

3.20 **Visual and Recreation Potential Analyses.** The CONSULTANT shall prepare a visual analysis to identify the existing and planned landscape character of the project area. Landscape character is the physical appearance of the landscape including the natural, physical and cultural features of the study area that gives it an identity and "sense of place." The existing landscape character should reflect the overall impression of the landscape attributes of the watercourse which should include but not be limited to landform, vegetative patterns, land use, channel characteristics, cultural features, rock forms, and scenic features.

3.20.1 The study area will be broken into landscape character units for the existing condition and depicted on an approximate scaled map. The CONSULTANT will provide a written description of these units along with photographs illustrating the character of the unit. As part of the visual analysis, a composite opportunities and constraints map will be prepared to graphically illustrate the planning influences analysis. Up to 12 landscape character units may be delineated within the project area.

3.20.2 The planning influences analysis will include assessing the views to and from the project area, incorporating wildlife habitat value, identifying prehistoric and historic sites as defined in Task 3.19, noting future land use including recreation facilities, and identifying any multiple-use/multi-modal transportation opportunities.

3.21 **Recommended Alternative Analysis.**

3.21.1 The CONSULTANT shall refine the design and cost estimates for the recommended alternative identified in the Alternatives Formulation Report. The recommended alternative shall be evaluated to determine alternative project features, site locations, and project alignments to refine the estimated project costs. This task is authorized with the Notice to Proceed for work on Phase II only. This task is not authorized with the Notice to Proceed for work on Phase I. Work under this task on Phase I may be authorized in writing by the DISTRICT. The CONSULTANT shall submit separate cost estimates for Phase I work under this task in the fee proposal and all invoices shall separately identify costs for additional work under this task.

3.21.2 The CONSULTANT shall base the designs on available topographic mapping that may be supplemented with field surveys at hydraulically or structurally critical locations.

3.21.3 The CONSULTANT shall refine the design detail to calculate the unit quantities of major project features. The design detail shall be limited to typical sizes and dimensions, but shall be sufficient to determine the costs of the major project components.

3.21.4 The CONSULTANT shall use a level of detail sufficient to determine the approximate environmental impacts, such as approximate depths or areas of disturbance, the types of vegetation, and the properties that will be impacted by the project.

3.21.5 The CONSULTANT shall prepare a Recommended Alternative Design Report in conformance with the requirements of section 5.1.11.
3.21.6 The CONSULTANT shall include the Recommended Alternative Design Report in the Skunk Creek Watercourse Master Plan Report.

3.22 **Skunk Creek Watercourse Master Plan Reports.**
3.22.1 The CONSULTANT shall submit a separate draft of the Skunk Creek Watercourse Master Plan Report for Phase I (below the Carefree Highway), and a draft of the entire Skunk Creek Watercourse Master Plan Report (including Phase I and Phase II). The reports shall include final versions of the Data Collection Report, the Potential Lateral Migration Report, the Implementation Plan Report, the Alternatives Formulation Report, and the results of the feasibility analysis of the recommended alternative. The report shall contain plan-profile drawings at a 10 percent level with sufficient detail to either continue the completion of the preliminary final design, or to implement the Watercourse Master Plan. The report shall be reproducible and include a digital original version submitted to the DISTRICT. The CONSULTANT shall submit a draft version of the report for review and comment. The CONSULTANT shall address all comments and submit the final Skunk Creek Watercourse Master Plan Report.
3.22.2 The CONSULTANT shall prepare a separate, reproducible Executive Summary of the Skunk Creek Watercourse Master Plan Report.

3.23 **Maintenance Plan.** The CONSULTANT shall estimate maintenance requirements and costs for the alternatives in Phase I and for the recommended Project alternative in Phase II on an annual basis. The life cycle considered shall be 50 years. The DISTRICT will provide maintenance and cost data to the CONSULTANT. This work is not authorized with the Notice to Proceed and may be authorized in writing by the DISTRICT based upon the results of the reconnaissance. The CONSULTANT shall submit separate cost estimates for this work in the fee proposal and all invoices shall separately identify costs for work under this task.

3.24 **Implementation Plan.**
3.24.1 The CONSULTANT shall prepare a plan for implementing Phase II of the Skunk Creek Watercourse Master Plan. The development of the implementation plan will include incorporation and coordination with the formulation of technical alternatives, valuation of alternatives and the adoption of the recommended alternative. This work is to be integrated with the Public Involvement portion of the project. In addition, the implementation plan shall include assistance to the DISTRICT in the drafting of an ordinance for Maricopa County, assistance in preparation of other necessary ordinances or regulations, and in developing certain property regulation strategies. This task is authorized with the Notice to Proceed. The DISTRICT as required may authorize an optional task for expansion of the Scope of Work, or more detailed analysis of the present scope. This optional task may include assistance to the City of Phoenix on developing an implementation plan for Phase I. Project fee proposals and invoices shall list the authorized additional service amounts separately.
3.24.2 The following tasks shall be performed in developing an implementation plan, and are authorized with the Notice to Proceed:
3.24.2.1 Coordination and integration with the formulation, evaluation and recommendation of the preferred alternative for the Watercourse Master Plan.

3.24.2.2 Coordination and participation in the Public Involvement process.
3.24.2.3 Technical assistance and review of ordinances for the City of Phoenix, Community of New River and Maricopa County. Such ordinances to be prepared and provided by the DISTRICT.
3.24.2.4 Conducting and participating in meetings with selected individuals.
3.24.2.5 Participation in three (3) public meetings as part of the Public Involvement program. The DISTRICT may elect to hold three (3) additional public meetings in Phase I and/or Phase II as an option.
3.24.2.6 Assistance in identifying potentially affected interests.
3.24.2.7 Assistance in developing presentation materials.
3.24.2.8 Evaluation of potential adverse impacts of the Watercourse Master Plan.
3.24.2.9 Evaluation of 404 and 401 permit requirements for alternatives and the recommended plan.
3.24.2.10 Identification of possible funding sources and/or mechanisms.
3.24.2.11 Preparation of a draft Implementation Plan Report.
3.24.2.12 Incorporation of the Implementation Plan, addressing all appropriate review comments, into the final Master Plan report.

3.25 **Public Involvement and Intergovernmental Agreement.**
3.25.1 The CONSULTANT shall conduct two (2) public meetings throughout the development of Phase I, and one (1) public meeting for Phase II of the Skunk Creek Watercourse Master Plan. The DISTRICT may elect, as an optional item, to have the CONSULTANT conduct up to three (3) additional public meetings for a total of six (6) public meetings. The CONSULTANT shall participate in the presentation at all the public meetings, and respond to questions as required. The CONSULTANT shall assume responsibility for advertising and arranging the meetings. Advertisements for the public meetings will be placed in the Arizona Republic, Scottsdale Tribune, and Foothills Sentinel two weeks and one week prior to the public meeting. The notice in the Arizona Republic will be placed in Zone 8 (Scottsdale, Carefree, New River, and Paradise Valley) only. The advertisement will be equivalent to a 4-column inch by 10-column inch notice. The DISTRICT may be required to submit the notice to the newspaper in order to receive the non-profit rate for advertising the meeting. The CONSULTANT will develop and maintain a mailing list and list of key stakeholders in conjunction with the DISTRICT and the City of Phoenix. Up to 1,500 individuals, agencies, and organizations will be on the direct mail list to receive notice of the public meetings. The DISTRICT will be responsible for providing insurance for the meeting locations and, if necessary, any fee associated with the use of the meeting facilities. The CONSULTANT will be responsible for providing refreshments at the public meetings. The public meetings shall occur within the project area, and be held at the following milestones:

3.25.1.1 Within ten (10) weeks after Notice-to-Proceed. The purpose of the meeting shall be to introduce the study team members, solicit issues and concerns, and explain the purpose and need for the project.
3.25.1.2 After the formulation of the initial alternatives. The purpose of the meeting shall be to request public input regarding the alternatives, public preferences, and any recommendations the public may have for other alternatives that need to be evaluated.

3.25.1.3 Upon completion of the draft Alternative Analysis Report, the Cultural Resources Inventory, and the Biological Assessment. The purpose of the meeting is to present the results of the alternatives analysis and the recommended alternative.

3.25.1.4 As an option, three (3) additional meetings may be scheduled as required, but are not authorized with the Notice to Proceed. One of these optional meetings would occur after the alternative analysis has been completed, and prior to establishing a preferred alternative. The purpose of this meeting shall be to request input from the public on the alternatives. The CONSULTANT shall submit separate cost estimates for this work in the fee proposal and all invoices shall separately identify costs for work under this task.

3.25.2 Additional meetings. The CONSULTANT may be directed to participate in as many as twelve (12) additional meetings with the governing bodies of the City of Phoenix, and Maricopa County. These meetings and payment are not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required. Project fee proposals and invoices shall list the authorized amounts for the additional meetings separately from the balance of the contract amount, and shall list the total amounts authorized.

3.25.3 The CONSULTANT shall staff and attend each public involvement activity. The CONSULTANT shall respond to the public's comments by making formal presentations or by written document addressing the issue.

3.25.4 The CONSULTANT shall prepare all necessary notices and display materials for the public meetings, such as display boards, information summaries, questionnaires, and other meeting documents. The CONSULTANT shall also prepare appropriate project mailings including an exhibit (8-½ inch x 11 inch) showing the general project features or project impact area. Up to twenty four (24) presentation exhibits (34 inch by 40 inch), Cactus color output quality, mounted on gatorboard will be provided at each public meeting. The presentation exhibits will be prepared in electronic format.

3.25.5 The CONSULTANT shall prepare three (3) newsletters for the project. These communiqués will discuss issues brought out at public meetings, solicit public input, provide information on the alternatives, reiterate the objectives of the project, and announce upcoming meetings. The format of the newsletters will be a three color plus black 11 inch by 17 inch folded communiqué. A response card will be included with the newsletter as a separate piece with a bulk rate postage stamp on the card.

3.25.5.1 The DISTRICT may elect, as an optional item, to have the CONSULTANT prepare up to three (3) additional newsletters for a total of six (6) newsletters. The CONSULTANT will be responsible for printing 2,500 copies of each newsletter and distribution of the newsletters.

3.25.5.2 The DISTRICT may elect, as an optional item, to have the CONSULTANT print and distribute up to 1,500 additional copies of each newsletter for a total of 4,000 copies. The preparation and printing of the three additional newsletters are not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required. Project fee proposals and invoices shall list the authorized amounts for the newsletters separately from the balance of the contract amount, and shall list the total amounts authorized.

3.25.6 The CONSULTANT shall prepare a public involvement plan. Specific milestones of the public involvement process for the project will be developed

into this plan, including the number and types of public meetings and outreaches, the use and frequency of communiqués such as flyers and newsletters, the development of mailing lists and lists of key constituencies and stakeholders, and the methods of providing opportunities for the public to influence the decision making process. The preparation of a public involvement plan is authorized with the execution of the contract. Eighteen (18) three-ring notebooks will be prepared of the public involvement plan.

3.25.7 The CONSULTANT shall attend up to twenty-eight (28) individual one-on-one meetings at the request of interested parties, such as civic groups, environmental groups, planning committees, homeowners associations, etc. The meetings will be informational in nature and will attempt to gain an understanding of the concerns and issues of the potentially affected interests. These meetings and payment are not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required. Project fee proposals and invoices shall list the authorized amounts for the additional meetings separately from the balance of the contract amount, and shall list the total amounts authorized.

3.25.8 The CONSULTANT will develop seven (7) project presentations in PowerPoint format for use by the DISTRICT. The presentations will be submitted to the DISTRICT in electronic media on compact disk that is useable in DISTRICT equipment. Each presentation is estimated to be approximately 30 slides/frames in length. The PowerPoint presentation programs are not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required. Project fee proposals and invoices shall list the authorized amounts for the canned presentations separately from the balance of the contract amount, and shall list the total amounts authorized.

3.25.9 The CONSULTANT will develop a media program in conjunction with the public involvement program. The media program will consist of keeping the news media informed of the progress of the project. Five appropriately timed news releases will be sent to the Arizona Republic. Key members of the news media will be contacted five times during the project to make sure they are aware of the progress of the project. The media program is not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required. Project fee proposals and invoices shall list the authorized amounts for the media program separately from the balance of the contract amount, and shall list the total amounts authorized.

3.26 **Rights-of-Way and Easements.**

3.26.1 The DISTRICT will notify all property owners and obtain any necessary Rights of Entry for the study area. The CONSULTANT shall furnish the DISTRICT with a list of parcels requiring right of entry.

3.26.2 Existing rights of way adjacent to the project site shall be researched and identified by the CONSULTANT.

3.26.3 The CONSULTANT shall review parcel ownership maps and identify which properties will be affected by the proposed project.

3.26.4 The CONSULTANT shall identify permanent right-of-way and easement requirements necessary for the project features.

3.26.5 The CONSULTANT shall identify any temporary construction easements required to complete the project.

3.26.6 The CONSULTANT shall prepare a base exhibit map of the study area that depicts the 100-year existing and future condition floodplain and floodway boundaries, and the erosion hazard zones, on the parcel boundaries provided by the DISTRICT. The area of impact of the above boundaries will be calculated using GIS for each parcel and tabulated in a table format for inclusion in the Recommended Alternative Design Report for Phase II. This includes all parcel except for those developments platted within two years previous and subsequent to contract signing, and government owned land.

3.27 **Permits and Approvals.**

3.27.1 The CONSULTANT shall be responsible for determining if plan approvals, permits, or licenses from other agencies will be required. Other agencies may include, but may not be limited to: municipalities, tribal governments, the County Health Department, the Arizona Department of Environmental Quality, the Arizona Department of Water Resources, the US Army Corps of Engineers, railroads, utilities, and water districts. Requirements for permits shall be documented in the appropriate study report.

3.27.1.1 The DISTRICT will be responsible for coordination with the US Army Corps of Engineers regarding the Clean Water Act Section 404, and the Arizona Department of Environmental Quality for 401 permits.

3.27.1.2 The CONSULTANT shall provide the total surface area, in acres, of impact within the jurisdictional boundaries and shall provide an estimate of the volume of material to be excavated or placed within the jurisdictional limits. Where possible the CONSULTANT shall modify designs to minimize the impacts of the project to qualify for a nationwide permit.

3.27.1.3 The CONSULTANT shall provide additional analysis and cost estimates to assist the DISTRICT in identifying modifications to the project that may provide environmental enhancements and may serve to mitigate adverse project impacts.

4. REPORTS

4.1. **Data Collection Report.** The Data Collection Report will contain a description of the known flooding problems within the study area, the data collected, and the existing drainage structures in the area, and discuss any surveying that has been performed. Existing major natural washes and existing and planned man-made drainage facilities in the watershed will be shown on the Existing Facilities Exhibit to be submitted with the Data Collection Report. The Existing Facilities Exhibit will be prepared in AutoCAD format based on the DISTRICT's GIS base mapping which will be provided by the DISTRICT in AutoCAD format.

4.2. **Project Survey Report.** Survey data will be documented in a Project Survey Report. Copies of all survey note books or printout of digital files developed with data collectors will be provided. The horizontal and vertical benchmarks used for the survey shall be documented along with documentation of the datum upon which the benchmark was originally established. Conversion to other datums as required herein shall be documented in the report. A summary table of the ERM's and benchmarks shall be included.

4.3. **Alternatives Formulation Report.** Separate Alternatives Formulation Reports for Phase I and the total project shall be prepared containing narrative descriptions of the alternatives considered and discarded, the alternatives selected for analysis, the results of the analysis of alternatives, and comparative cost estimates. The advantages and disadvantages and general environmental impacts of each alternative shall be identified. The recommended alternative shall be identified in the report. Results from the brainstorming sessions and the alternatives analysis meeting will be documented in the Alternatives Formulation Report.

4.3.1. The Alternatives Formulation Report format should include the following as a minimum:

Summary
Description of Study Area
Scope of Project
Selection of Alternative Plan
Recommended Alternative
Proposed structural Improvements
Non-structural Improvements
Costs
Areas of Flooding
Summary of Existing Flooding Complaints
Areas and locations of potential Flooding
Basin Management Alternatives
Alternatives Evaluation
Evaluation Criteria
Evaluation of Alternatives
Recommended Alternative
References
List of Figures and a Location Map
Topographic Map
Areas of Potential Flooding
Land Use/Zoning Map
Map depicting proposed ADMP
List of Tables
Peak Discharges
Unit Costs for Features

4.3.2. The Phase I Alternatives Formulation Report shall not include a Recommended Alternative.

4.3.3. The CONSULTANT shall submit the Phase I and total project reports in draft form for review by the DISTRICT. The Phase I report shall be submitted to the DISTRICT and the City of Phoenix for review. Upon receipt of review comments, the CONSULTANT shall incorporate appropriate revisions and complete the final report.

4.4. **Recommended Alternative Design Report.**

4.4.1. The CONSULTANT shall prepare a design and cost estimate for the preferred alternative utilizing available and new engineering hydrology. The preferred alternative shall be designed and plans prepared to the 10% level of detail. It is appropriate to base designs upon available topographic mapping, supplemented with field surveys at hydraulically or structurally critical locations, and the 100-year preferred alternative alignment. Design detail shall be refined to allow the calculation of approximate unit quantities of major project features.

Design of the project features shall be sufficient to determine the costs of constructing the 10-year alternative.

4.4.2. The CONSULTANT shall prepare a Draft Design Summary Report DSR that summarizes the data and calculations collected and generated as part of the Preliminary Design Phase. The Draft DSR shall document the development of the preferred alternative. Environmental impacts and project permitting requirements shall be summarized. The major project construction and special design considerations shall be described. The Draft DSR shall include the 10% plans at a scale of 1" = 200' drawings and exhibits which show the major project features and typical sections, and which provides inclusion of all required data which is easily read and interpreted. The DSR and plans shall be submitted to the DISTRICT and to the agencies identified in Section 1.5 for review. Digital files containing the project drawings, figures and exhibits shall be submitted with the final report.

4.4.3. Upon acceptance of the recommended alternative, the CONSULTANT shall prepare a Recommended Alternative Design Report that summarizes the study data. Environmental impacts and project permitting requirements shall be summarized. The major project construction items and special design considerations shall be described. The report shall include drawings and exhibits that show the major project features and typical sections. The CONSULTANT shall develop hydrology for the final plan in place using the hydrologic model prepared by the CONSULTANT and submitted to the DISTRICT. The revision will include the effects of the recommended drainage design. The report will contain the design criteria and objectives applied during the development of the Skunk Creek Watercourse Master Plan , including:

Maximum allowable velocities.
Channel characteristics, e.g., alignments and cross-sections.
Type(s) of drop structures.
Provision for runoff in excess of design capacity and maximum depth of flow in streets.
Maximum depth of basin and required drain time.
Maximum size or frequency-capacity for pipes and box culverts.
Selection of dip vs. culvert crossings, and 100-year "all weather" crossings.

5. DELIVERABLES

5.1. The CONSULTANT shall submit 4 copies of each deliverable document, as outlined in this scope of work, to the DISTRICT, and 2 copies to each agency identified in paragraph 1.5, unless otherwise noted. The deliverables include:

5.1.1. The project schedule (2.1) – DISTRICT only, 1 copy
5.1.2. Estimated project billing (3.4.1) – DISTRICT only, 1 copy
5.1.3. Monthly invoices (3.4.2) – DISTRICT only
5.1.4. Monthly progress reports (3.4.4) – DISTRICT only, 1 copy
5.1.5. Minutes of meetings (3.6.2) – DISTRICT only, 1 copy
5.1.6. Data Collection Report (3.8.2)
5.1.7. Project Survey Report (3.9.7)
5.1.8. Lateral Migration Analysis Report (3.13.2)
5.1.9. Alternatives Formulation Report (3.15.1.10)
5.1.10. Biological Survey Report (3.16)

5.1.11. Recommended Alternative Design Report (3.21.5)
5.1.12. Skunk Creek Watercourse Master Plan Report (3.22) (DISTRICT only, 1 original reproducible)
5.1.13. Executive Summary Report (3.22.2) (DISTRICT only, 1 original reproducible)
5.1.14. Implementation Plan (3.24)

2350.0002.01

Memo

Stantec

To: Tom Loomis, PE, RLS ASL Consulting Engineers

File: 82000141

Date: 06 December 1999

From: Pat Ellison, PE Stantec Consulting Inc.

Re: Skunk Creek

Message:

Tom I would like to relate the following concerns and/or items and some solutions to identified problems that where discussed in our in house project meeting for Skunk Creek. I realize that some of the issues will be discussed tomorrow at the Steering Committee meeting, however I wanted to relate them to you prior to the meeting.

1) Has the hydrology for Unnamed Tributary been resolved? Are discharges significantly larger than what we used to initially set up the HEC-RAS model? Is there a potential, that HEC-RAS cross section input data (length and alignment) will need to be revised? If cross section data needs to be revised do we have sufficient topographic coverage?

2) There has been discussion concerning right of entry. Are we still pursuing right of entry for sediment samples? It was our understanding that we have all the sediment data that we are going to get. The work we have done to date would have to revisited if new sediment data is being collected our

3) Has the topo for Skunk Creek been field verified.

4) Can we get the results of your field survey for Carefree Highway, New River Road and Cloud Road.

5) Has the review of our "n" value report for Unnamed Wash been completed.

6) John has reviewed our simplified geometry hydraulic models and has suggestions concerning additional channel modifications and changes to cross-section alignment. We would like some clarification for these suggested changes. We would like to have a work session this week or early next week to resolve everyone concerns.

7) In our review of the location of peak discharge changes in the HEC-2 model we have found and additional concern. It appears that the discharge at a concentration point form the HEC-1 model is used in the HEC-2 model at a location that is consistent with the location in the HEC-1 model however it is then projected in a down stream mode instead of an up stream mode.

We can discuss these item further tomorrow.

Reference:

STANTEC CONSULTING INC.

Patrick J. Ellison
Water Resource Engineer

c.

document4

TRANSMITTAL

A… Consulting Engineers

TO: Stantec Consulting Inc.
7776 Pointe Parkway West, Ste 290
Phoenix, AZ 85044-5403

DATE: December 23, 1999

ATTN: Pat Ellison

JOB NO: 2350.0002 FCD99-23

PROJECT NAME: Skunk Creek Watercourse Master Plan

- [x] Enclosing
- [ ] Per your request
- [x] Via UPS
- [ ] Other
- [ ] Via messenger
- [x] For your review
- [ ] Via Overnight Mail
  - [ ] FedEx. or [ ] Exp. Mail

DESCRIPTION:

1- Copy Preliminary Hydrology for Skunk Creek and Unnamed Wash for review and comment.

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See instructions on back. Call 1-800-PICK-UPS (800-742-5877) for additional information.

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REFERENCE NUMBER: 2350.0002.01. 1000

NAME: T Loomis, PE: VP   TELEPHONE: 520-474-4636

COMPANY: ASL CONSULTING ENGINEER

3 WEIGHT: Weight (Enter "LTR" if letter): 2.5 lbs | Dimensional Weight (if applicable): | 102

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CHARGES: $ / $ / $ / $ / $ / $

SIGNED: *Thomas R Loomis*

Thomas R. Loomis, PE, Vice President

- [ ] 501 North 44th Street, Suite 125
Phoenix, AZ 85008
(602) 244-2624
FAX (602) 244-1164

- [ ] 431 South Beeline Highway, Suite A
Payson, AZ 85541
(520) 474-4636
FAX (520) 474-4867

File 2350.0002.01 Stantec Corr

Stantec

Project: Skunk Creek WMP Project Number: 82000141

Notes: Unnamed Trib. Floodway Scale:

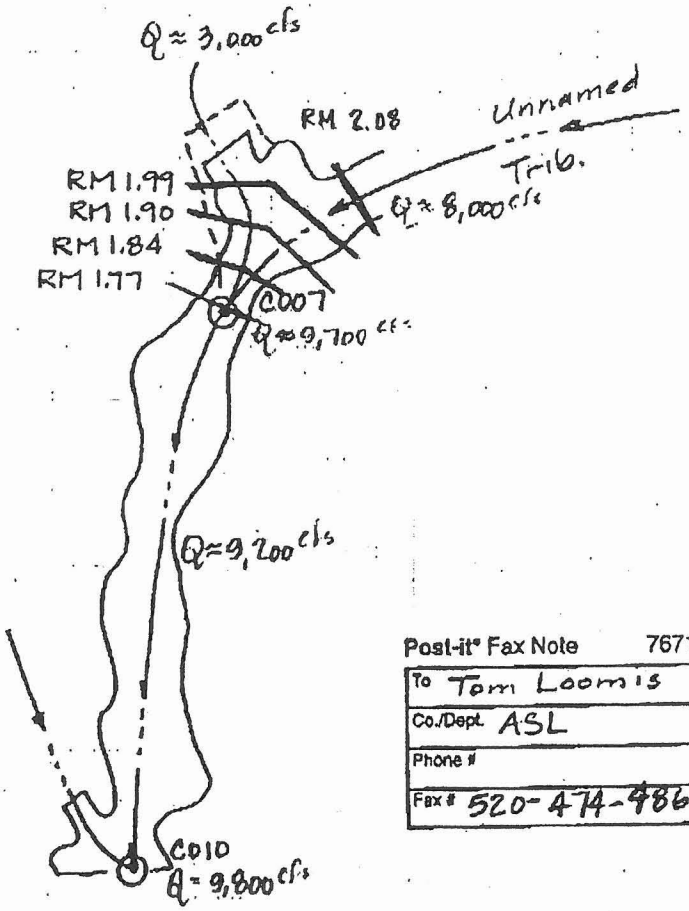
Page 1 of 3 Page(s)

Computed By: MCG Date: 2 18 00 Checked By: Date:

File 2350.0002.01
Stantec Corresp.

Tom

I have a dilema and would like yo[u] [ash]
that is tributary to Unnamed Trib. [in]
point C007 has a peak discharge of [3,000 cfs]
The peak discharge in Unnamed Trib. at this point is approximately 8,000 cfs. The total combined discharge at C007 is approximately 9,700 cfs. The peak discharge in Unnamed Trib. at the next downstream concentration point, C010, is approximately 9,200 cfs. The total discharge at C010 is approximately 9,800 cfs.



Post-it® Fax Note 7671	Date 2-18-00	# of pages ▶ 3
To Tom Loomis	From Mike Gerlach	
Co./Dept. ASL	Co. Stantec	
Phone #	Phone #	
Fax # 520-474-4867	Fax # 602 431-9562	

Stantec

Project: Project Number:

Notes: Scale:

Page 2 of 3 Page(s)

Computed By: Date: Checked By: Date:

The floodplain for Unnamed Trib. using the peak discharges of 9,200 cfs and 8,000 cfs from concentration points C010(L) and C007(L), respectively is shown as a solid line in the previous figure. The floodplain for the tributary wash using the peak discharges of 9,200 cfs and 3,000 cfs is shown as a dashed line in the previous figure. The floodplain of the tributary wash has a higher wsel than that of Unnamed Trib.

The geometry for cross sections RM 1.84 – 1.99 for Unnamed Trib. is the full geometry, inclusive of the tributary wash. The geometry of these sections for the tributary wash does not include geometry of Unnamed Trib. The tributary wash model starts with RM 1.77 with the same wsel as that in the Unnamed Trib. model.

Here are some solutions that we have thought of:

(1.) Determine the discharges in both Unnamed Trib and the tributary wash so that the two water surface elevations are approximately equal. The resulting discharged in the Tributary wash would be < 3,000 cfs and the discharge in Unnamed Trib. would be > 8,000 cfs, but most likely less than the total discharge at C007

Stantec

Project: Project Number:

Notes: Scale:

Page 3 of 3 Page(s)

Computed By: Date: Checked By: Date:

of approximately 9,700 cfs. The problem with this solution is, if the flow is commingling then technically the total discharge should be used for stations 1.77 – 1.99. The peak discharge of 8,000 cfs would then start at RM 2.08. However, 9,700 cfs is significantly greater than the downstream discharge of 9,200 cfs.

(2) Use a discharge of 9,700 cfs from RM 1.99 to the downstream study limits. I'm trying to avoid this solution because I do not want to replot the floodplain & floodway, again.

Mike

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
501 N 44 th Street, Suite 125, Phoenix, AZ 85008
(602) 244-2624 FAX (602) 244-1164

Formerly:
ASL Consulting Engineers, Inc.
Collins-Pina Consulting Engineers, Inc.
Simons, Li & Associates, Inc.

To: Mr. Kofi Awumah, P.E.
Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009

Job No. 2350.0001.03.43164
Date: April 9, 2001
Subject: Draft Skunk Creek/Sonoran Wash FLO-2D
Sent Via: Hand Delivered

QUANTITY	DESCRIPTION
1	Draft Two Dimensional Hydraulic Model of the Confluence of Skunk Creek and Sonoran Wash at the CAP Canal

COMMENTS For Your Review

Kofi,

Thank you for your review. Any comments you may have are greatly appreciated.

Sincerely,

Jeff

Copies: Mr. Douglas A. Williams, AICP
Mr. Tom Loomis

BY: Jeffrey A. Despain, P.E.
Assistant Project Manager

TRANSMITTAL

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
501 N 44 th Street, Suite 125, Phoenix, AZ 85008
(602) 244-2624 FAX (602) 244-1164

Formerly:
ASL Consulting Engineers, Inc.
Collins-Pina Consulting Engineers, Inc.
Simons, Li & Associates, Inc.

To: Jim O'Brien
P.O. Box 66
Nutrioso, Arizona
85932
(520) 339-1935

Job No. 2350.0002.01.21004
Date: April 9, 2001
Subject: FLO-2D Draft Report
Sent Via: USPS

QUANTITY	DESCRIPTION
1	Draft Two Dimensional Hydraulic Model of the Confluence of Skunk Creek and Sonoran Wash at the CAP Canal

COMMENTS: For your review and comment.

Jim,

Feel free to comment on anything in this report. It is the first time I have written up FLO-2D and I can see where I could improve. Any input you have is greatly appreciated.

Thanks,

Jeff

Copies: Tom Loomis

BY: Jeffrey A. Despain, P.E.
Assistant Project Manager

TRANSMITTAL

TRANSMITTAL

ASL Consulting Engineers

TO: Tetra Tech
3150 Bristol Street, Suite 500
Costa Mesa, CA 92626

DATE: March 13, 2000

ATTN: Patty Sexton

JOB NO: 2350.0002.01

PROJECT NAME: Skunk Creek Watercourse Master Plan

☒ Enclosing ☐ Per your request ☒ Via UPS ☐ Other

☐ Via messenger ☒ For your review ☐ Via Overnight Mail
☐ FedEx. or ☐ Exp. Mail

DESCRIPTION:

1 - CD-ROM/AutoCAD Contour File: 2350xt.dwg

REMARKS:

SIGNED: Thomas R. Loomis/dj
Thomas R. Loomis, P.E.

☐ 501 North 44th Street, Suite 125
Phoenix, AZ 85008
(602) 244-2624
FAX (602) 244-1164

☒ 431 South Beeline Highway, Suite A
Payson, AZ 85541
(520) 474-4636
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2350.0002.01 05004

NAME: Tom Loomis
TELEPHONE: 520-474-4636

COMPANY
ASL CONSULTING ENGINEER

STREET ADDRESS
431 S BEELINE HWY STE A

CITY AND STATE: PAYSON
ZIP CODE: AZ 855414816

2 EXTREMELY URGENT DELIVERY TO

NAME: Patty Sexton
TELEPHONE

COMPANY
TETRA TECH

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Skunk Creek Watercourse
Master Plan

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Surface is in \surf2.
Should be placed in:

sdskproj\job no.\dtm\surf2

3/13/00

Call Marcie Burcham w/any questions regarding surface 520-474-4636

2350.0002.02

ASL Consulting Engineers

501 North 44th Street
Suite 125
Phoenix, Arizona 85008
602/244-2624
Fax 602/244-1164
www.aslce.com

50 Years of Success

September 27, 2000

Ms. Marilyn DeRosa
Project Manager
Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, AZ 85009

Regarding: SKUNK CREEK WATERCOURSE MASTER PLAN STUDY, FCD Contract 99-23

Dear Marilyn:

Enclosed for the District's review are example hand computations demonstrating the methodologies used to calculate the total scour potential along Skunk Creek and Sonoran Wash in the above referenced study. The total scour potential, in turn, was used to determine the required toe-down elevations and quantities for the various bank protection options evaluated. A copy of this letter and the hand computations has been sent directly to Doug Williams and Kofi Awumah for their use.

If the District has any questions or needs additional information regarding the example computations, please do not hesitate to contact me.

Sincerely,

Tetra Tech, Inc.
Infrastructure Southwest Group

Bart S. Bergendahl, P.E.
Asst. Project Manager

Enclosures

cc: Tom Loomis w/enclosure

BSB/tll
Y:\ASL-005\HandCompSubLtr.doc

ASL Consulting Engineers

501 North 44th Street
Suite 125
Phoenix, Arizona 85008
602/244-2624
Fax 602/244-1164
www.aslce.com

June 20, 2000

Mr. Doug Williams
Flood Control District of Maricopa County
2801 West Durango St.
Phoenix, AZ 85009-6399

Regarding: Skunk Creek Watercourse Master Plan Optional Budget
Project No. 2350.0002.02/FCD 99-23

Dear Doug:

Per your verbal request, we are to prepare a 2-dimensional hydraulic model of the confluence of Skunk Creek and the Sonoran Wash at the CAP Canal. The Scope of Work for this task is as follows:

1. Prepare a 2-Dimensional flow model of the area upstream and downstream of the CAP Canal over-chutes at Skunk Creek and the Sonoran Wash. Extend the model a sufficient distance upstream of the CAP Canal to allow for transition to the existing HEC-RAS 1-dimensional flow model. Extend the model a sufficient distance downstream of the CAP Canal to allow for a stable hydraulic model at the CAP Canal over-chutes.
2. Use the 2-D model to determine if there is a tail-water problem downstream of the CAP over-chutes that has a hydraulic effect on the upstream 100-year water surface.
3. Estimate and plot the existing condition 100-year floodplain limits upstream of the CAP Canal.
4. Estimate the peak flow rates that will overtop the CAP Canal control levees and I-17 during the existing condition 100-year event. Estimate the recurrence interval where flow begins to overtop the CAP Canal control levees and I-17.
5. Estimate the levee height required to force all the existing condition 100-year peak discharge through both CAP Canal over-chutes, including sufficient freeboard to meet FEMA requirements. Plot the future condition 100-year floodplain limits upstream of the CAP Canal assuming the required CAP control levees are in place.
6. If the backwater from the raised levees causes unacceptable loss of land on the City of Phoenix proposed wastewater treatment plant site, investigate the feasibility of improving the inlet configurations of the CAP Canal over-chutes to allow a lower backwater elevation that is acceptable to the City of Phoenix.
7. Prepare preliminary cost estimates for construction of any recommended improvements.

HEC-RASs' level of accuracy is inadequate to effectively model this complicated area. Numerous public infrastructure (CAP, I-17, future wastewater treatment plant) is at risk from inadequate flood flow conveyance. This 2-D modeling is not identified in the scope of work because the typical HEC-RAS one-dimensional modeling that is specified normally is

sufficient to identify potential flooding problems. This area, however, is much more complicated than that previously anticipated and both the Engineering Division of the District and ASL Consultants recommend this more accurate 2-D modeling approach.

Please rearrange the optional contract budget to allow for this work. I recommend establishing an optional Task 3.15 Alternatives Analysis with a time and materials budget of $20,000. The monies can be obtained by eliminating one of the three optional public meetings, and reducing that budget (Task 3.25.1.4) by $20,000. This will leave sufficient budget for 2 optional public meetings. Since we still have budget for 1 more public meeting under the base contract, this allows budget for 3 more public meetings. I believe that is sufficient for Phase II.

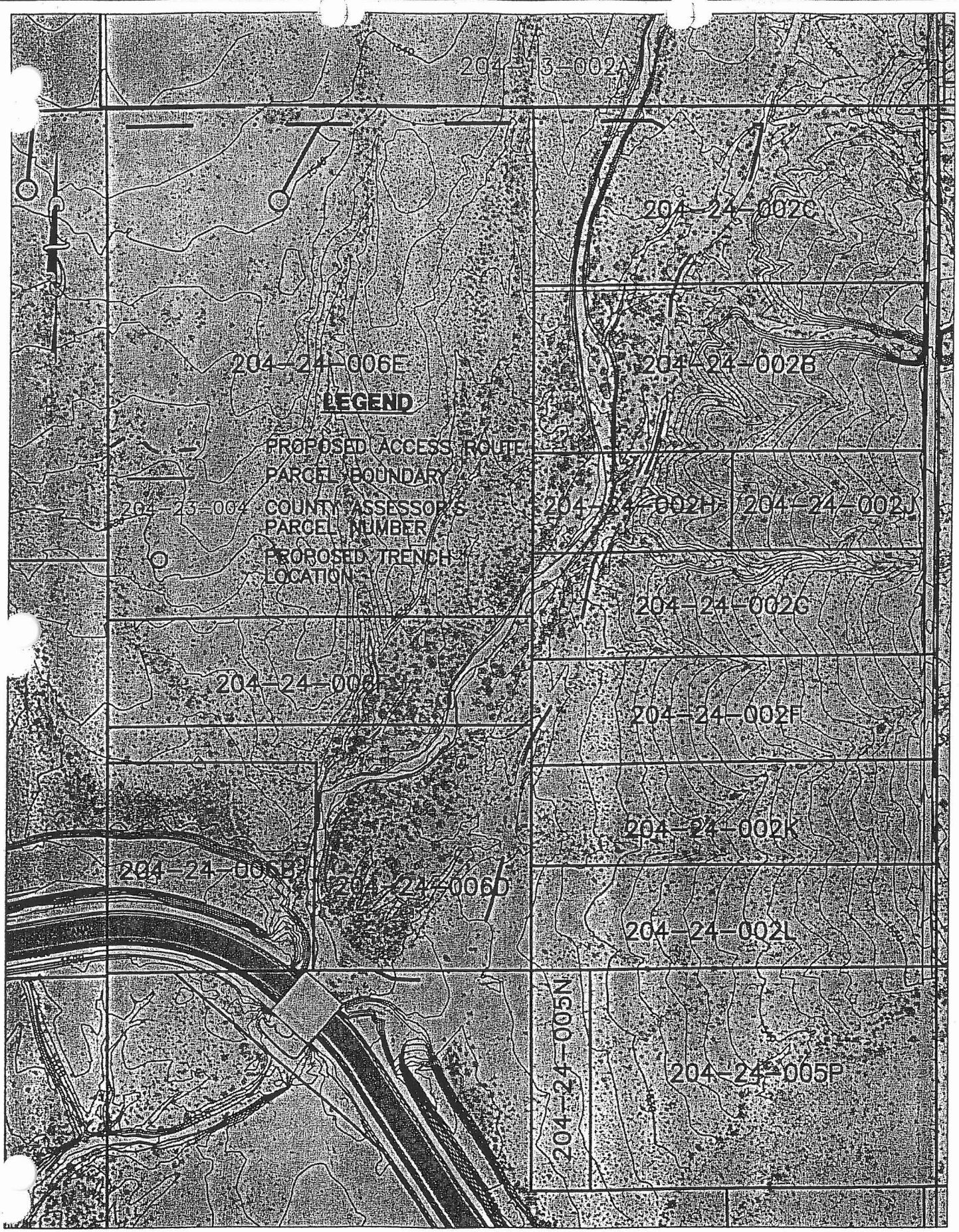
Please feel free to call if you have questions regarding this issue, or if I can be of further assistance.

Sincerely,

ASL CONSULTING ENGINEERS

for Thomas R. Loomis, PE, RLS
Vice President

G:\ADMIN\PROJ\2350\Correspondence\L-0003trl.doc



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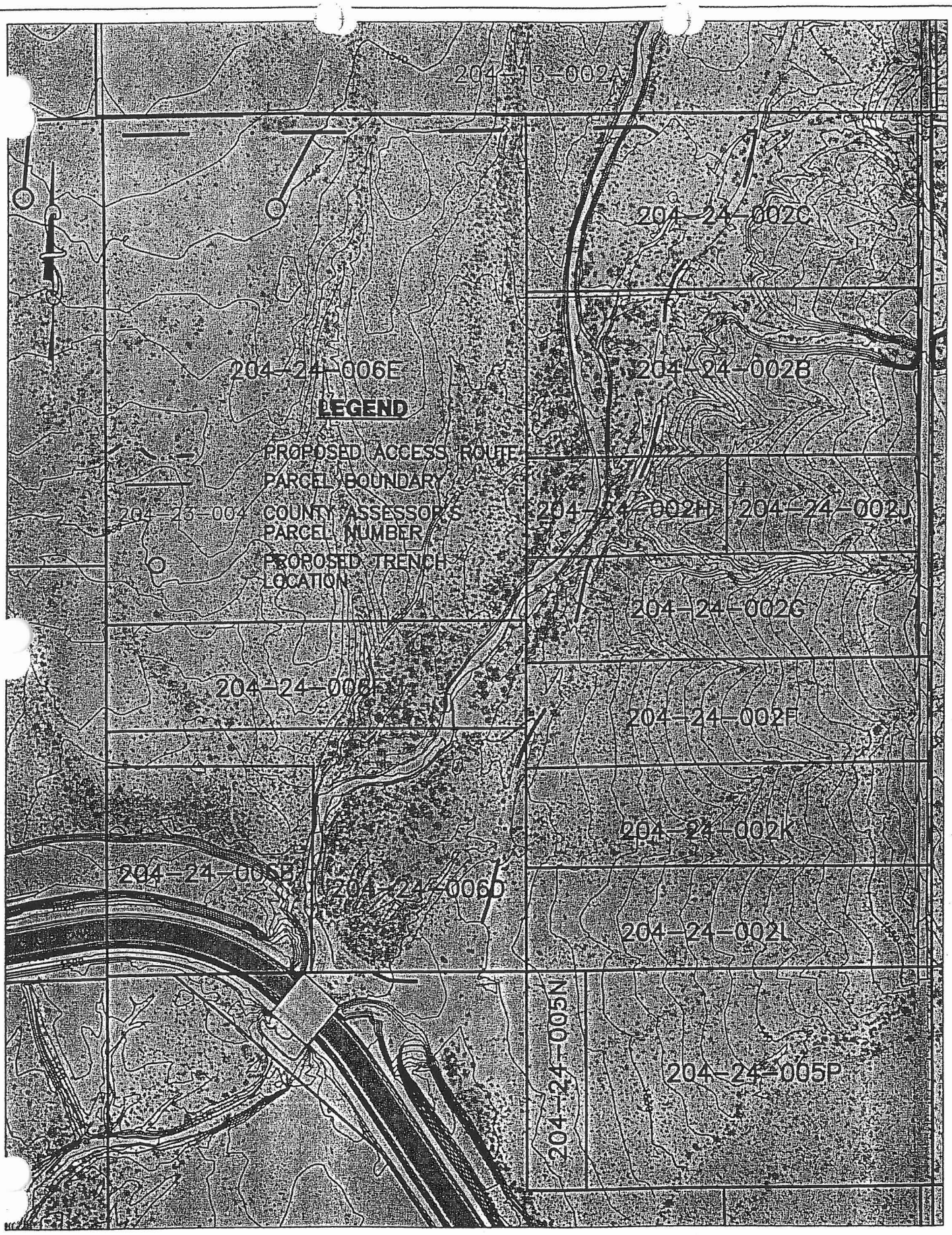

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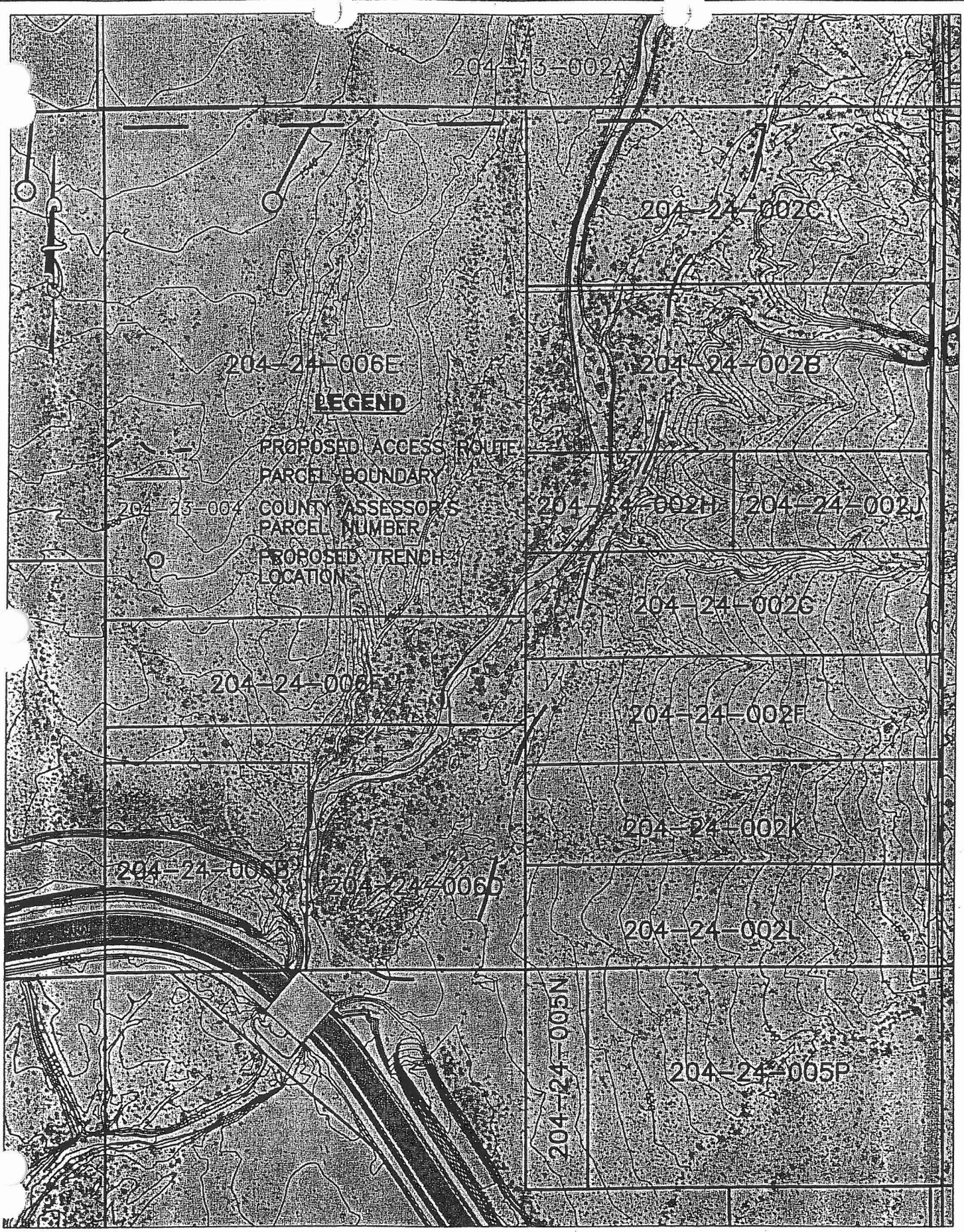

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ASL Consulting Engineers

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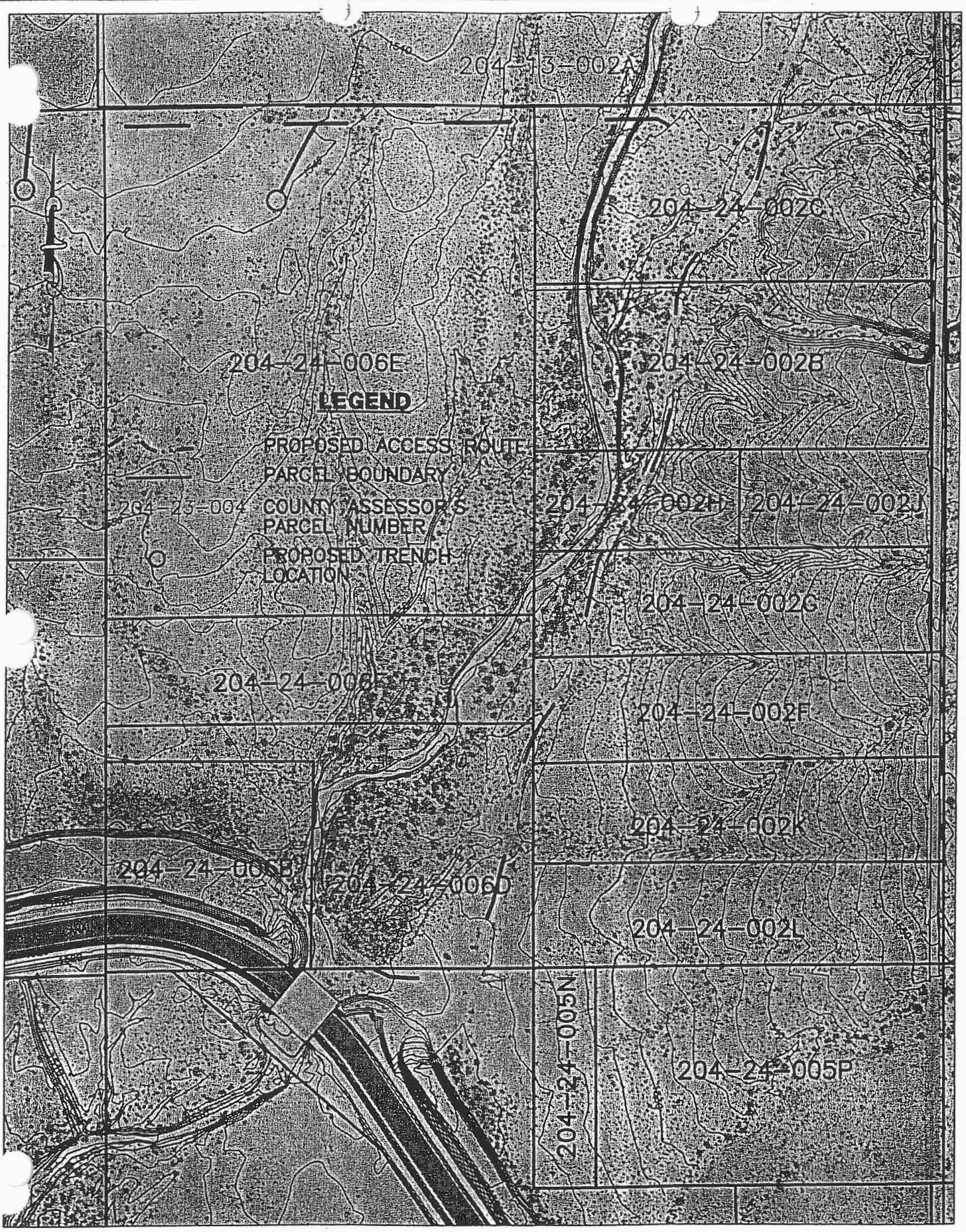

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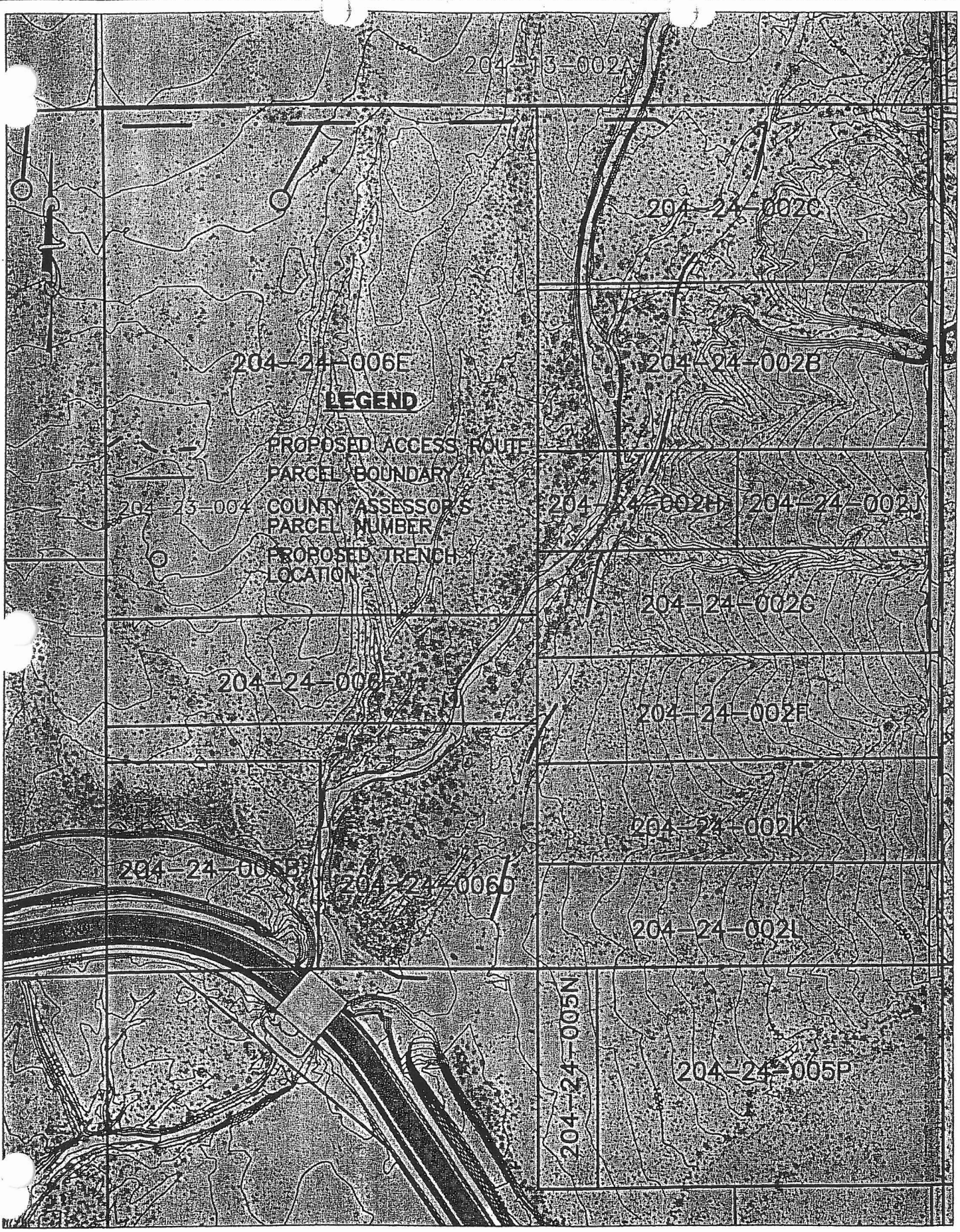

SCALE: 1"=400' DATE: 10/13/99 **ASL** Consulting Engineers

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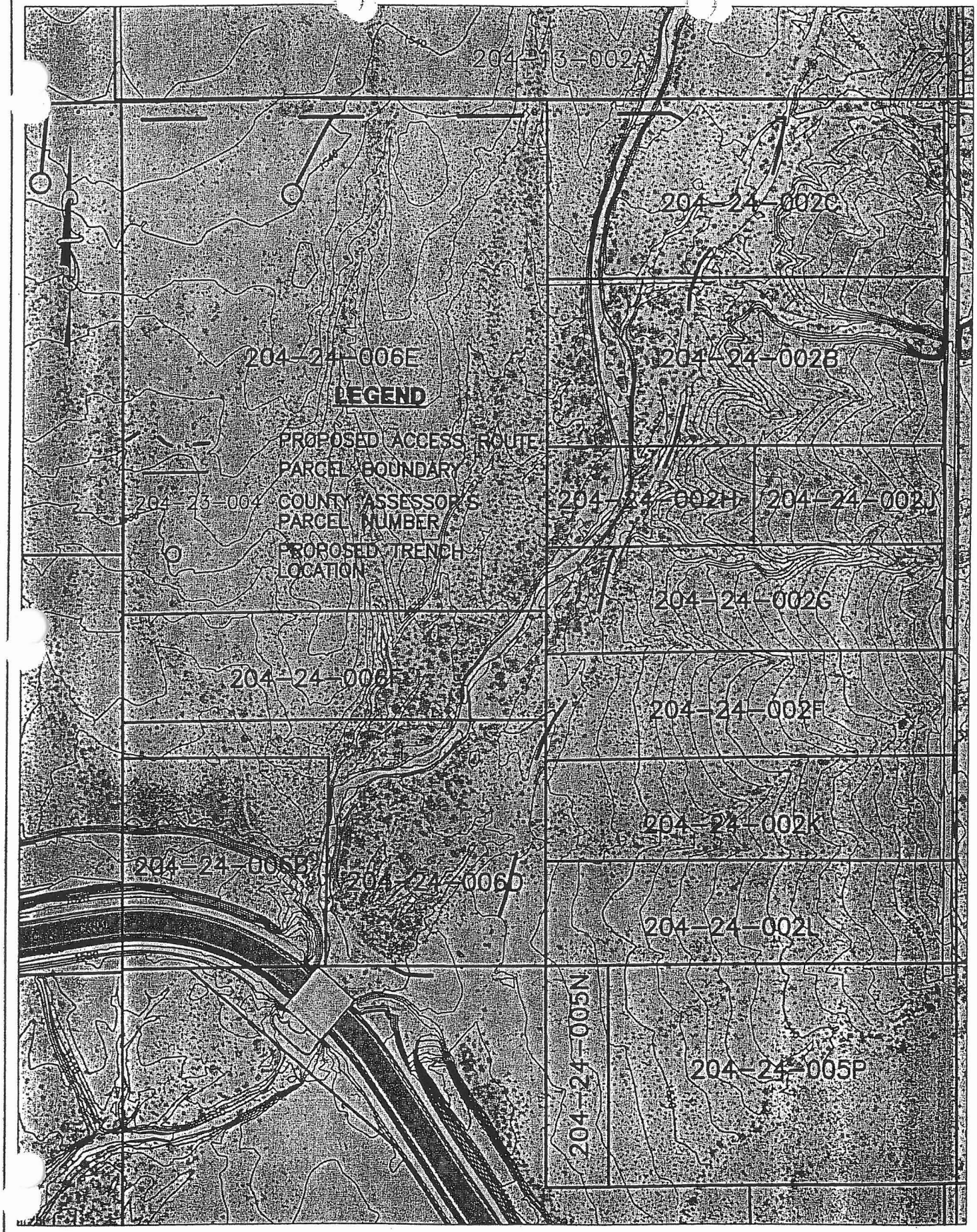
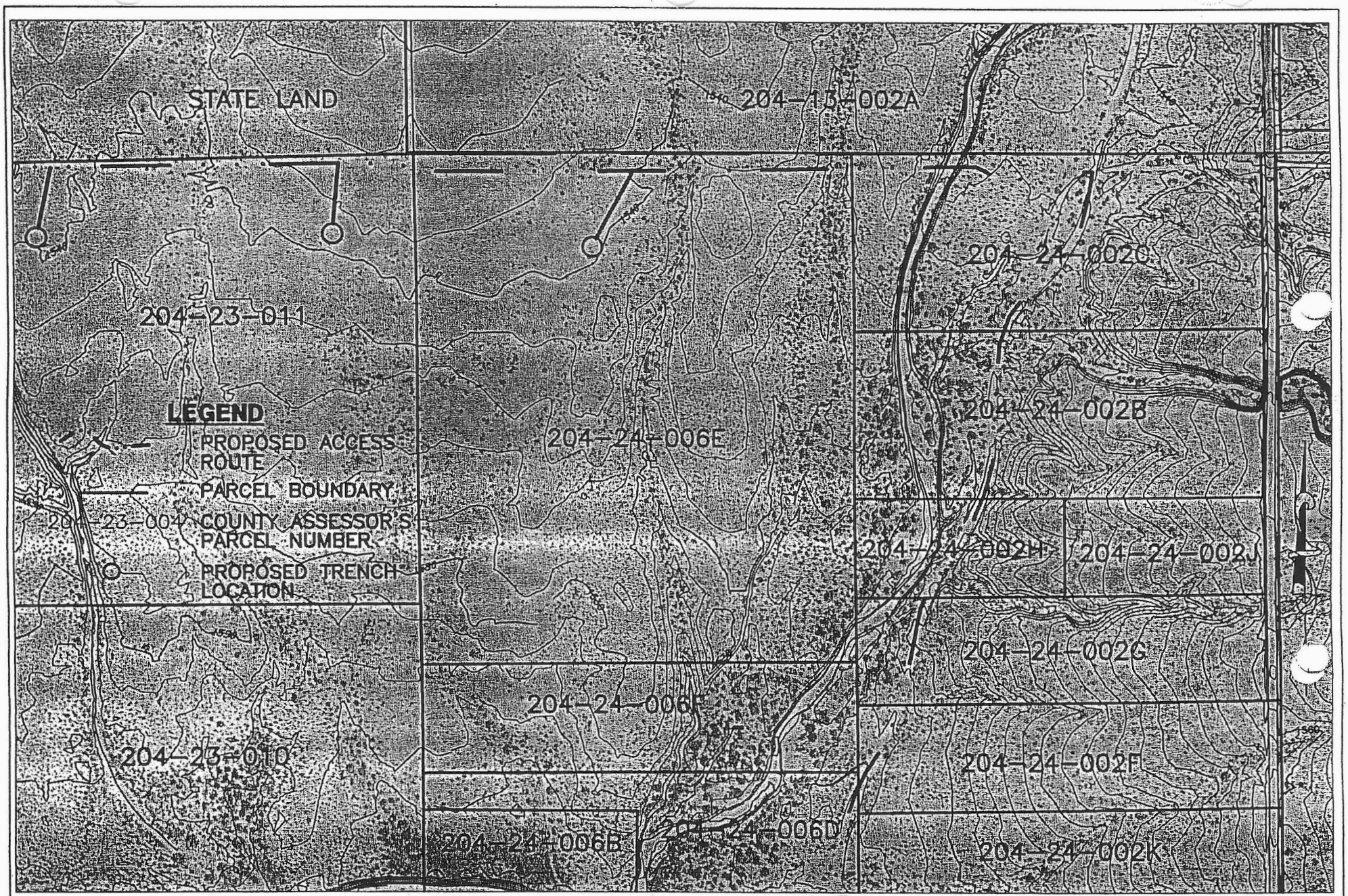


SCALE: 1"=400' DATE: 10/13/99 **ASL** Consulting Engineers

RIGHT OF ENTRY 204-24-002C



RIGHT OF ENTRY 204-24-006E

TRANSMITTAL

ASL Consulting Engineers

TO: Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, AZ 85009-6399

DATE: December 23, 1999

ATTN: Valerie Swick

JOB NO: 2350.0002 FCD99-23

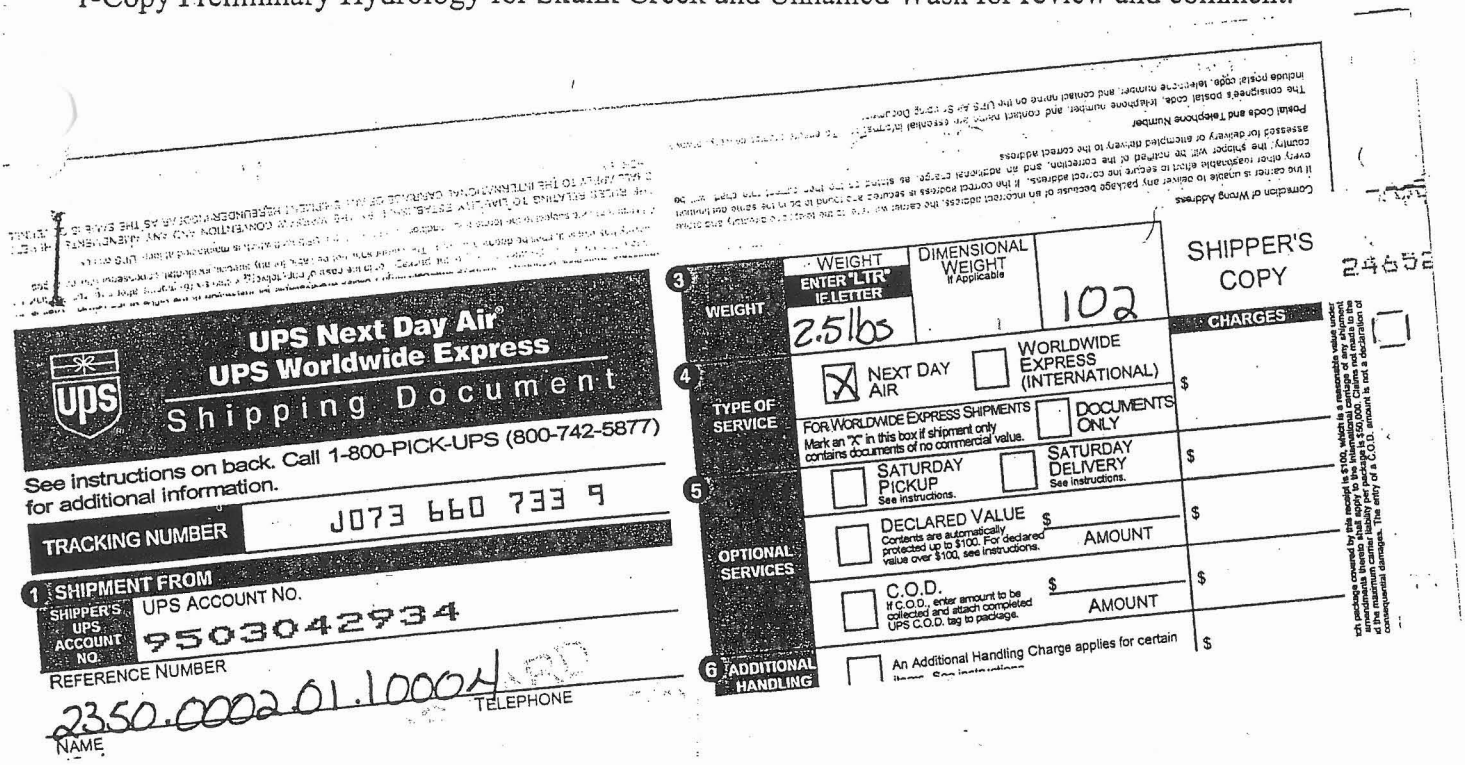
PROJECT NAME: Skunk Creek Watercourse Master Plan

☒ Enclosing ☐ Per your request ☒ Via UPS ☐ Other

☐ Via messenger ☒ For your review ☐ Via Overnight Mail ☐ FedEx. or ☐ Exp. Mail

DESCRIPTION:

1-Copy Preliminary Hydrology for Skunk Creek and Unnamed Wash for review and comment.



UPS Next Day Air
UPS Worldwide Express
Shipping Document

See instructions on back. Call 1-800-PICK-UPS (800-742-5877) for additional information.

TRACKING NUMBER J073 660 733 9

1 SHIPMENT FROM
SHIPPER'S UPS ACCOUNT NO. UPS ACCOUNT No. 9503042934
REFERENCE NUMBER 2350.0002.01.10004
NAME TELEPHONE

3 WEIGHT — ENTER "LTR" IF LETTER: 2.5 lbs; DIMENSIONAL WEIGHT If Applicable: 102

4 TYPE OF SERVICE: ☒ NEXT DAY AIR; ☐ WORLDWIDE EXPRESS (INTERNATIONAL); For WORLDWIDE EXPRESS SHIPMENTS Mark an "X" in this box if shipment only contains documents of no commercial value. ☐ DOCUMENTS ONLY

5 OPTIONAL SERVICES: ☐ SATURDAY PICKUP See instructions. ☐ SATURDAY DELIVERY See instructions. ☐ DECLARED VALUE $ ____ AMOUNT Contents are automatically protected up to $100. For declared value over $100, see instructions. ☐ C.O.D. $ ____ AMOUNT If C.O.D., enter amount to be collected and attach completed UPS C.O.D. tag to package.

6 ADDITIONAL HANDLING: ☐ An Additional Handling Charge applies for certain

SHIPPER'S COPY 24552

CHARGES $ ____ $ ____ $ ____ $ ____

Correction of Wrong Address
If we cannot deliver any package because of an incorrect address, the carrier will try to deliver it to the correct address. If the correct address is secured by the carrier, an additional charge will be applied for each correction, and an additional charge will be applied for each attempted delivery to the correct address.

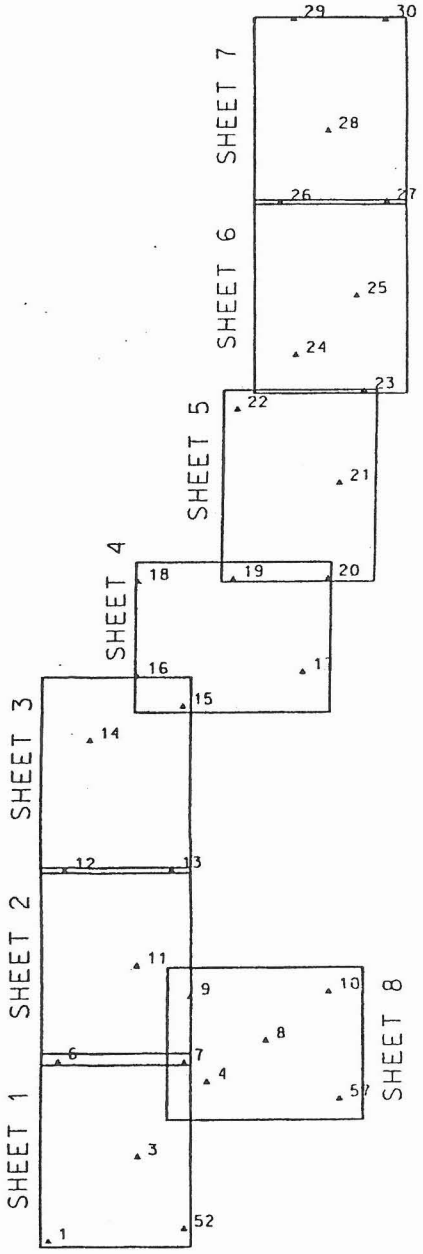
Postal Code and Telephone Number
The consignee's postal code, telephone number, and contact name are essential information and must be provided. Failure to include postal code, telephone number, and contact name on the UPS Air Bill may delay delivery.

SIGNED: Thomas R. Loomis

Thomas R. Loomis, PE, Vice President

☒ 501 North 44th Street, Suite 125
Phoenix, AZ 85008
(602) 244-2624
FAX (602) 244-1164

☐ 431 South Beeline Highway, Suite A
Payson, AZ 85541
(520) 474-4636
FAX (520) 474-4867



SHEET LAYOUT - NAD '83 CONTROL

SHEET # 1	Lower Left	633630, 997150	Upper Right	642030, 1007950
SHEET # 2	Lower Left	633630, 1007350	Upper Right	642030, 1018150
SHEET # 3	Lower Left	633630, 1017850	Upper Right	642030, 10286[illegible]
SHEET # 4	Lower Left	638900, 1026700	Upper Right	649700, 1035100
SHEET # 5	Lower Left	643650, 1034000	Upper Right	652050, 1044800
SHEET # 6	Lower Left	645350, 1044600	Upper Right	653750, 1055400
SHEET # 7	Lower Left	645350, 1055150	Upper Right	653750, 1065950
SHEET # 8	Lower Left	640700, 1004300	Upper Right	651500, 1012700

RECEIVED
SEP 15 1999
ASL, PAYSON

From Aerial Mapping Co.

2000' OSS2 24

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

LETTER OF INTEREST REQUEST NOTICE

Contract No. FCD 99-23

Skunk Creek Watercourse Master Plan

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
LETTER OF INTEREST REQUEST NOTICE
Contract No. FCD 99-23
Skunk Creek Watercourse Master Plan

The Flood Control District of Maricopa County (District) is soliciting Letters of Interest (LOIs) from Engineering Consultants for Contract No. FCD 99-23, Skunk Creek Watercourse Master Plan. This Project is contingent upon the City of Phoenix Counsel approval on April 21, 1999. If the Counsel approves the Project, the District will proceed with receipt of LOIs and the shortlist selection. If not approved, those who have picked up the LOI packet will be notified not to submit their LOI.

This Project will include the impact of existing and proposed development along Skunk Creek north of the Central Arizona Project (CAP) Aqueduct. The selected firm will develop alternative analyses and recommended technical criteria for new development. The Project will include review of available hydrology, hydraulic modeling, floodplain delineation sediment transport, historic property documentation, survey review, and recharge potential. It will also include floodplain delineation of two unnamed tributaries of Skunk Creek. It is anticipated the Project performance period will be twelve months from the date of the Notice to Proceed.

The consultant agrees to provide services to accomplish the work under the direction of a Registered Engineer with the State of Arizona in the appropriate discipline.

Six (6) copies of the Letter of Interest, addressed to Barbara Hummell, Contracts Manager, must be received at the Flood Control District of Maricopa County, 2801 West Durango, Phoenix, Arizona 85009 by 10:00 a.m. on May 14, 1999. LOIs received late may be rejected. The outside of the envelope must note that it contains the Letter of Interest for Contract FCD 99-23 Skunk Creek Watercourse Master Plan.

The LOI shall be limited to a Standard Form 255 and the MBE/WBE Assurances Affidavit. In addition, an introductory letter of no more than two pages may be included. The LOI shall contain no photos, be stapled and unbound.

From the Letters of Interest received, the Consultant Selection Panel will select for further consideration at least two firms more than the number of anticipated contracts. The evaluation criteria used to determine selection is enclosed. Those firms selected will be provided additional instruction by the Contracts Manager. Those firms not selected for further consideration will be notified.

The Flood Control District of Maricopa County will endeavor to ensure that minority and women-owned business enterprises have the opportunity to participate in providing professional services, purchased goods, and contractual services to the Flood Control District without fear of discrimination on the grounds of race, religion, sex, age, disability or national origin.

A Minority/Women-Owned Business Enterprises goal of six percent (6%) has been established for this contract. The utilization of MBE/WBE subconsultants/subcontractors is governed by the instructions contained in the "Professional Services Consultant Contracting Requirements." Consultants are advised to read the instructions, which are available from the Flood Control District, Contracts Division, at telephone (602) 506-4433. A copy of the required MBE/WBE Affidavit form is attached. A list of County-Certified MBE/WBE firms may also be obtained from the Flood Control District.

LETTER OF INTEREST EVALUATION CRITERIA
Contract No. FCD 99-23
Skunk Creek Watercourse Master Plan

1. Firm's Capabilities (25 Points)

   The capabilities of the prime consultant and any subconsultant/subcontractors of taking on the new workload will be assessed by the County.

   A. Does the prime consultant possess the personnel, resources, and financial capabilities to undertake this work?
   B. Can the project team start and complete the project in accordance with the furnished contract schedule, if identified?
   C. Does the LOI indicate that project-specific special requirements will be met?

2. Staff Qualifications/Resumes (30 Points)

   Only permanent, full time personnel currently employed by either the prime consultant, sub-consultants or subcontractors can be indicated as "employees"; on-call, part-time or anticipated staff must clearly be identified as such.

   A. Does the project team currently have personnel with the necessary qualifications to complete the project?
   B. If subconsultants are used; do they also have the necessary qualifications?
   C. Are possible on-call, part-time, or anticipated staff clearly identified as such?

3. Experience on Similar Projects (30 Points)

   The qualifications and experience of new consultants or consultants not previously having County experience will be reviewed equally with those having prior County experience.

   A. Has the project team previously successfully completed similar projects?
   B. Has the prime consultant completed projects of this type on time and within budget?
   C. Does the prime consultant have experience in dealing with project-applicable governmental regulations, policies and procedures?

4. Location of Work (10 points maximum)

   Preference will be given to consultants with the capability of performing the work within resident Maricopa County offices. If insufficient information is provided, zero points will be awarded.

   Does the Letter of Interest clearly and definitely state where all of the contract work will be performed?

   Scoring:

All work done in Maricopa County	10 points
All work done in Arizona	5 points
Some work done out of State	2 points
All work done out of State	Zero Points

5. MBE/WBE Assurances Affidavit Form (5 Points)

Five points will be awarded only if the criteria for "A" and "C" are met, or "A" and "B" are met. If not, zero points will be awarded. The lack of a signed and notarized affidavit (criteria "C") may cause the LOI to be rejected.

A. Has the prime consultant firm indicated that it has a current affirmative action plan or policy statement on file with the City of Phoenix-Maricopa County Consolidated Certification Program located at 251 West Washington Street, 7th Floor, Phoenix, AZ 85003, telephone 262-6790? Consultants may also file an affirmative action plan or policy statement with their submittal.
B. Is the prime consultant firm a Certified MBE/WBE firm, and is its certification number supplied.
C. Has the prime consultant firm submitted a signed and notarized "MBE/WBE Assurances Affidavit".

6. Current and Active Prime Consultant's Article Five Contracts with Maricopa County Departments/Districts/Agencies.

A. Minus points are not assessed for annual, on-call type contracts.
B. Minus points are not assessed for multiple contracts. In the event a consultant has more than one contract with Maricopa County, the cumulative contract total will serve as the basis for minus point calculations.

Minus points are assessed for current, active and incomplete contracts as follows:

Over	$400,000			minus 10 points
Between	$350,000	and	$400,000	minus 9 points
Between	$300,000	and	$350,000	minus 8 points
Between	$250,000	and	$300,000	minus 7 points
Between	$185,000	and	$250,000	minus 6 points
Between	$120,000	and	$185,000	minus 5 points
Between	$ 80,000	and	$120,000	minus 4 points
Between	$ 50,000	and	$ 80,000	minus 3 points
Between	$ 20,000	and	$ 50,000	minus 2 points
Up to	$ 20,000			minus 1 point

CITY OF PHOENIX-MARICOPA COUNTY CONSOLIDATED CERTIFICATION PROGRAM

PROFESSIONAL SERVICES CONSULTANT CONTRACT REQUIREMENTS

A. The Following Conditions Will Apply in the Calculation of the Percentage Attainment:

1. All DBE/MBE/WBE firms used in attainment of the goal must be certified with the **City of Phoenix-Maricopa County Consolidated Certification Program, 251 West Washington Street, 7th Floor, Phoenix, Arizona 85003, Telephone No. 262-6790.** In addition, only those firms certified prior to the Letter of Interest submittal date for advertised solicitations, or the proposal due date for Consultant Register-based selections will be considered in the attainment of the goal.

2. Prime Consultant subcontracts to DBE, MBE, or WBE:
The DBE/MBE/WBE amount to be applied to the goal will be based on that portion (dollar value) of the contract that the DBE/MBE/WBE performs. For example, if a prime consultant subcontracts work to a DBE/MBE/WBE firm in the amount of $10,000, and the total contract amount is $100,000, the DBE/MBE/WBE participation will be credited as 10 percent.

3. Prime Minority Consultant:
A DBE/MBE/WBE prime consultant will be credited with the DBE/MBE/WBE participation for that portion of the contract which they themselves perform, plus those portions subcontracted to other DBE/MBE/WBE firms. For example, if a DBE/MBE/WBE prime consultant proposes to perform 50 percent of a $100,000 project, and subcontracts 25 percent to an MBE firm, DBE/MBE/WBE participation will be $75,000, credited as 75 percent.

4. Minority/Non-Minority Joint Venture:
A joint venture consisting of DBE/MBE/WBE participation and non-DBE/MBE/WBE business enterprises, functioning as a prime consultant, will be credited with minority participation on the percentage of fee accruing to the DBE/MBE/WBE firm. For example, if a DBE/MBE/WBE and non-DBE/MBE/WBE joint venture proposes to perform 50 percent of a $100,000 project and 50 percent of the joint venture fee ($50,000) will accrue to the DBE/MBE/WBE partner in the joint venture, DBE/MBE/WBE participation will be credited at 25 percent or $12,500.

5. Lower Tier Non-DBE/MBE/WBE Participation:
DBE/MBE/WBE subconsultants proposing to further subcontract to non-DBE/MBE/WBE consultants/contractors shall not have that portion of subcontracting activity considered when determining the percentage of DBE/MBE/WBE participation.

B. Required Forms:

THREE AFFIDAVITS ARE REQUIRED.

The first form, the **"DBE/MBE/WBE Assurances Affidavit"**, shall be completed and submitted with the Letter of Interest (LOI) **if DBE/MBE/WBE contract goals have been established.** Failure to do so may be cause for rejection of the Letter of Interest. The information in this affidavit will be binding on the consultant.

The second form, the **"Proposed DBE/MBE/WBE Participation Affidavit"** shall be completed and submitted with the Technical Proposal, **if DBE/MBE/WBE contract goals have been established.** Again, failure to do so may be cause for rejection of the Technical Proposal. The Affidavit will list the proposed DBE/MBE/WBE participation by firm name and the related percentage value of the proposed DBE/MBE/WBE contracts. The information in this Affidavit is binding on the consultant to the extent that any subsequent percentages on the

"Actual DBE/MBE/WBE Participation Affidavit" may be increased and not decreased, and that if any listed DBEs/MBEs/WBEs are unable to enter into a subcontract with consultant, the consultant must provide a written report and request to the Procurement Officer through the Owner's representative in accordance with instructions provided elsewhere (substitution of subconsultants) in this document.

The third form, **"Actual DBE/MBE/WBE Participation Affidavit"** shall be completed and returned by the selected consultant by 4:00 p.m. on the seventh calendar day after the successful completion of contract fee negotiations. The Affidavit shall list the DBE/MBE/WBE participation by firm name and the related dollar value of the DBE/MBE/WBE contract. The information in this Affidavit is binding on the Consultant, and the Consultant shall provide a written report to the Procurement Officer through the Owner's representative in accordance with instructions provided elsewhere (substitution of subconsultants) in this document.

C. Good Faith Efforts:

Technical Proposals which fail to meet or exceed the established DBE, MBE, or WBE goals may be considered nonresponsive unless good faith efforts can be confirmed. (The Consultant Certificate of Good Faith form is available upon request.)

Only DBE, MBE, and WBE firms certified by the **City of Phoenix-Maricopa County Consolidated Certification Program** prior to the Letter of Interest submittal date (advertised solicitation) or Proposal due date (Consultant Register-based selections), and which will perform a commercially useful function, will be counted toward meeting the participation goals.
Any portion of the work that a proposed DBE, MBE, or WBE firm will subcontract to other than another certified firm, regardless of tier, will not be counted toward the applicable goals. Prime consultants who do not fulfill the DBE, MBE, or WBE goals must demonstrate, through detailed and comprehensive documentation, that timely "good faith" efforts have been made to solicit, assist and utilize DBE, MBE, or WBE firms to meet participation goals.

Upon request, the **Flood Control District of Maricopa County (hereinafter identified as "District")** will furnish a DBE, MBE, WBE subconsultant list to assist prime consultants in identifying possible qualified and interested DBE, MBE, or WBE subconsultants to meet assigned DBE, MBE, and WBE goals.

Failure to contact the District for assistance in complying with these goals may result in not having implemented "Good Faith" efforts. Contact may be in writing, by telephone, or in person. Name of the person contacted should be obtained and written within the "Consultant Certificate of Good Faith" submittal form. (Flood Control District of Maricopa County, Contracts Branch, 2801 West Durango Street, Phoenix, Arizona 85009, Telephone No. 506-4433 or 506-4876).

Failure to implement "Good Faith" efforts in accordance with the above requirements could result in the rejection of the Technical Proposal.

If information submitted by a prime consultant indicates that established DBE, MBE, or WBE goals have not been met, the consultant shall provide documentation demonstrating that the firm has complied with DBE, MBE, or WBE good faith efforts. Both quality and intensity of these efforts will determine good faith efforts. Documentation provided to the District must include:

1. The date proposer requested assistance in writing, in person, or by telephone from the District. D/M/WBE listings are updated frequently, therefore, proposers shall ensure that they have the most recent edition.

2. Names, addresses and telephone numbers of certified DBE/MBE/WBEs contacted; the method of contact, i.e. telephone, letter, or in person; and dates contacts are made for this project. Also document dates and methods used for follow up of initial solicitation to confirm whether the D/M/WBEs were interested in subconsulting. (See following note).

3. Items of work for which proposer requested quotes or proposals from D/M/WBEs; information furnished to interested DBEs, MBEs, and WBEs such as specifications, work requirements, or plans; and any breakdown of work into economically feasible units to facilitate DBE, MBE, and WBE participation.

4. Names of DBEs, MBEs, and WBEs who submitted bids for any of the work indicated above and were not accepted by the prime contractor. An explanation of why DBEs, MBEs, and WBEs contacted were not awarded subcontracts. If fee was the reason for rejection of the proposal or quote, submit the proposal or quote of rejected DBEs, MBEs, and WBEs and the fee of the selected subconsultant. Since utilization of available DBEs, MBEs, and WBEs is the program objective, fee differences will not automatically be considered as cause for rejection of DBE, MBE, and WBE proposals or quotes.

5. Documentation of written notices or telephone calls to a reasonable number of D/M/WBEs soliciting their participation in sufficient time to allow D/M/WBEs to participate effectively. All D/M/WBEs listed on the **City of Phoenix-Maricopa County Consolidated Certification Program** certification list which provide applicable goods and services for subject procurement/project should be contacted.

NOTE: The above good faith efforts must have been conducted during the solicitation response period and prior to the submittal date, with substantial time allowed for a response from potential D/M/WBE subconsultants. Original contact by a prime consultant just prior to or on the date of submittal, will not be construed as having provided sufficient response time for submission of subcontract proposals or quotes.

The following can also demonstrate a "Good Faith" effort in soliciting D/M/WBE participation:

1. A description of the proposer's efforts to assist D/M/WBEs whose proposals were rejected, to enable them to be more competitive in their subcontracting proposals or quotes. These efforts could include assistance in meeting insurance requirements or critiquing their proposals, etc.

2. Names and dates proposer placed advertisements in newspapers, trade papers, and minority focus papers requesting D/M/WBE participation for this project.

Consultants are encouraged to seek D/M/WBEs in the same geographical area in which the work is to be performed or goods provided. If the proposer cannot meet the established goals using D/M/WBEs from the geographical area, the proposer should expand its search to a reasonable, but wider geographical area.

The **District** will make the final decision as to whether good faith efforts were met, based on the information submitted.

D. Appeal Process For Contract Selection:

If the Owner is considering award of a contract to a prime consultant other than the top ranked prime consultant because of failure to meet DBE, MBE, and WBE participation goals or good faith efforts, or rejecting any consultant's proposal because of inadequate good faith documentation, that consultant will be notified and given an opportunity to protest the decision. This protest shall be made in accordance with the Maricopa County Procurement Code, Article 9, MCI-905, which is incorporated by reference.

E. Contract Compliance:

Failure of any consultant or subconsultant to comply with any of the minority participation requirements of the **District** shall be a material breach of contract. During the term of an awarded contract, the prime consultant shall:

1. Fulfill the DBE, MBE, and WBE participation commitments submitted;

2. Continue to make every effort to utilize DBEs, MBEs, and WBEs;

3. Require that their subconsultants make every effort to utilize DBEs, MBEs, and WBEs;

4. Maintain records necessary for monitoring compliance with provisions contained in the D/M/WBE Program.

The primary responsibility for assuring consultant's compliance with these D/M/WBE contract requirements after award rests with the Owner's designated representative. The Owner's designated representative should ascertain that no one other than the approved DBE, MBE, and WBE subconsultants are performing the work; or that DBE, MBE, and WBE subconsultant substitutes have been approved in advance. The prime consultant shall not perform any contract work items without prior approval by the Owner's designated representative.

The Owner's designated representative shall advise the **District's** Contracting Branch immediately of any circumstances where a consultant appears to be in violation of the DBE, MBE, and WBE contract requirements. The District will make an investigation and corrective action will be forwarded to the County Engineer. Intentional noncompliance with the DBE, MBE, and WBE requirements may result in withholding funds on the items already completed, in termination of the contract, and/or formal debarment from future contracts. The **District** reserves the right to inspect all records of the consultant, DBEs, MBEs, and WBEs concerning this project, and will conduct DBE, MBE, and WBE compliance reviews on a regular basis.

F. <u>Substitution of Subconsultants</u>:

The prime consultant shall request approval to replace an approved DBE, MBE, and WBE subconsultant that is unable or unwilling to perform successfully on a contract with another DBE, MBE, and WBE. This failure does not relieve the consultant from its responsibility of meeting the DBE, MBE, and WBE participation goals on the contract. A written request for substitution must be made to the Owner's Procurement Officer or, through the appropriate Owner's representative. The substitute DBE, MBE, and WBE employed to perform an equal or greater dollar value of work, must be approved by the Owner's Procurement Officer, through the appropriate Owner's representative, prior to commencement of work by the substitute DBE, MBE, and WBE. The request for substitution must include, but is not limited to the following:

1. Reason for substitution.

2. Name, address, and telephone number of the approved DBE, MBE, and WBE.

3. Name, address and telephone number of the DBE, MBE, and WBE substitute.

4. Item, numbers, description of work and the proposed DBE, MBE, and/or WBE dollar amount.

5. Good faith effort documentation if the substitute subconsultant is not a DBE, MBE, or WBE.

G. <u>Requests For Pay</u>:

A City of Phoenix-Maricopa County Consolidated Certification Program "DBE/MBE/WBE Participation Report" must accompany any pay request, using the Owner-provided form.

The final pay request shall include a listing of total contract DBE/MBE/WBE participation. A description of actual work performed shall also be included. If, at the time of contract completion, the DBE, MBE, and WBE commitments are not actually attained, the report is to provide an explanation of failure to comply. **These reports shall be submitted within thirty (30) days of contract completion, prior to release of any remaining contract retention.**

CITY OF PHOENIX-MARICOPA COUNTY CONSOLIDATED CERTIFICATION PROGRAM

MBE/WBE ASSURANCES AFFIDAVIT *

(NOTE: FAILURE TO COMPLETE AND SUBMIT THIS AFFIDAVIT WITH THE LETTER OF INTEREST SUBMITTAL MAY BE CAUSE FOR REJECTION OF THE SUBMITTAL.)

The undersigned, fully cognizant of the Maricopa County MBE/WBE Program requirements and of the goal established, hereby certifies that in the preparation of this Letter of Interest,

_____

(the entity submitting the Letter of Interest)

(CHECK ONE)

_____ Will meet the established goal for participation by Minority/Women-Owned Business Enterprises.

_____ Will provide the necessary documentation to the Flood Control District of Maricopa County to establish that a good faith effort was made, and submit such documentation with its Technical Proposal.

_____
Name of Firm

_____
Signature

_____
Title

STATE OF ARIZONA)
) ss.
County of Maricopa)

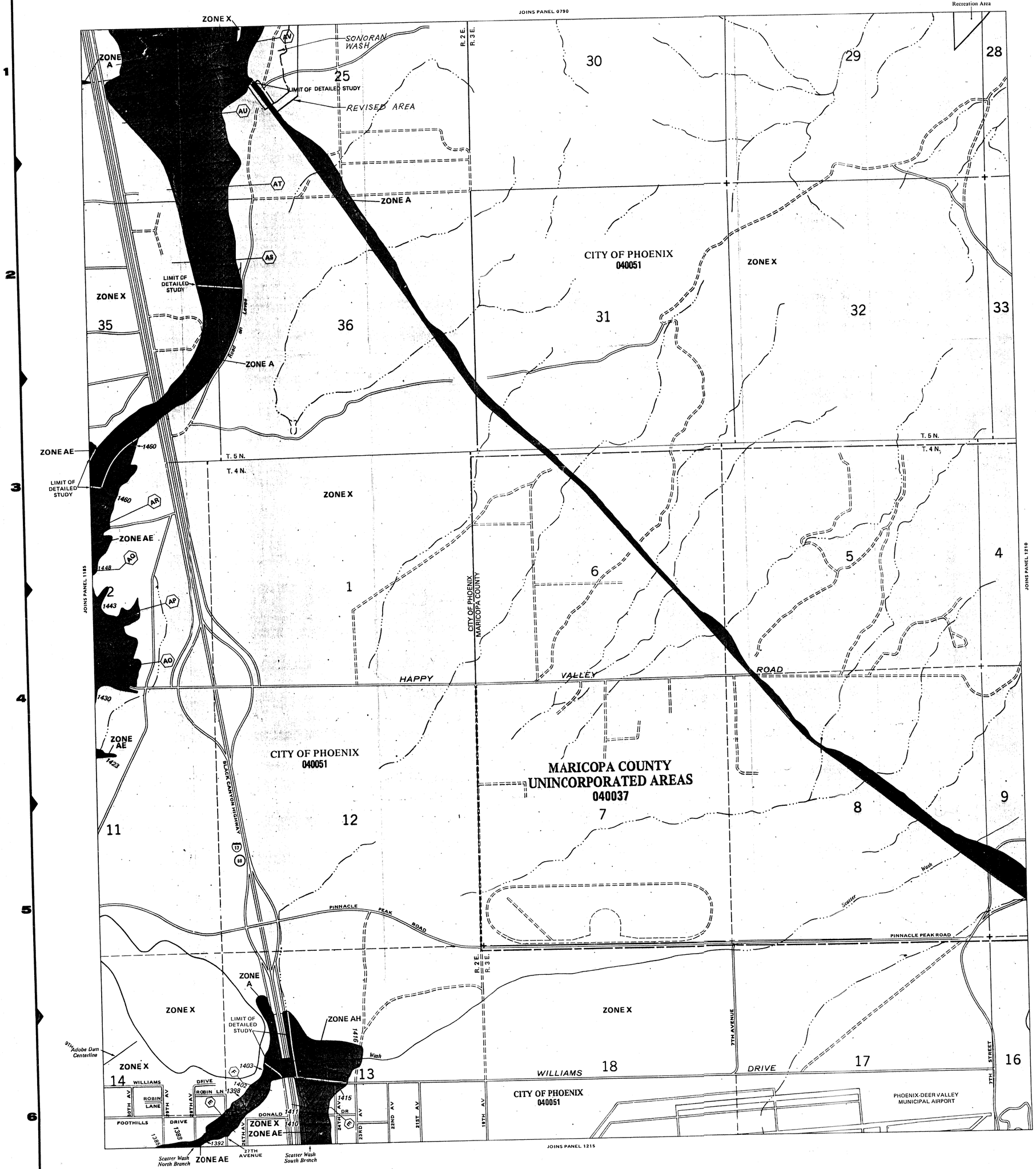
Subscribed and sworn to me before this _____ day of _____ 19__

by _____.
Notary Public

My Commission Expires _____

APPENDIX K

ANNOTATED FIRM PANEL



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** — No base flood elevations determined.
- **ZONE AE** — Base flood elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** — To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** — Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside 500-year flood plain.
- **ZONE D** — Areas in which flood hazards are undetermined.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

$RM7_X$ — Elevation Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Areas of special flood hazard (100-year flood) include Zones A, A1-30, AE, AH, AO, A99, V, V1-30 AND VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of the map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY
Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
APRIL 15, 1988

EFFECTIVE DATE (S) OF REVISION (S) TO THIS PANEL:
Map revised DECEMBER 3, 1993 to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to change zone designations, to update map format, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued letters of map revision.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA AND INCORPORATED AREAS

PANEL 1205 OF 4350

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY, UNINCORPORATED AREAS	040037	1205	E
PHOENIX, CITY OF	040051	1205	E

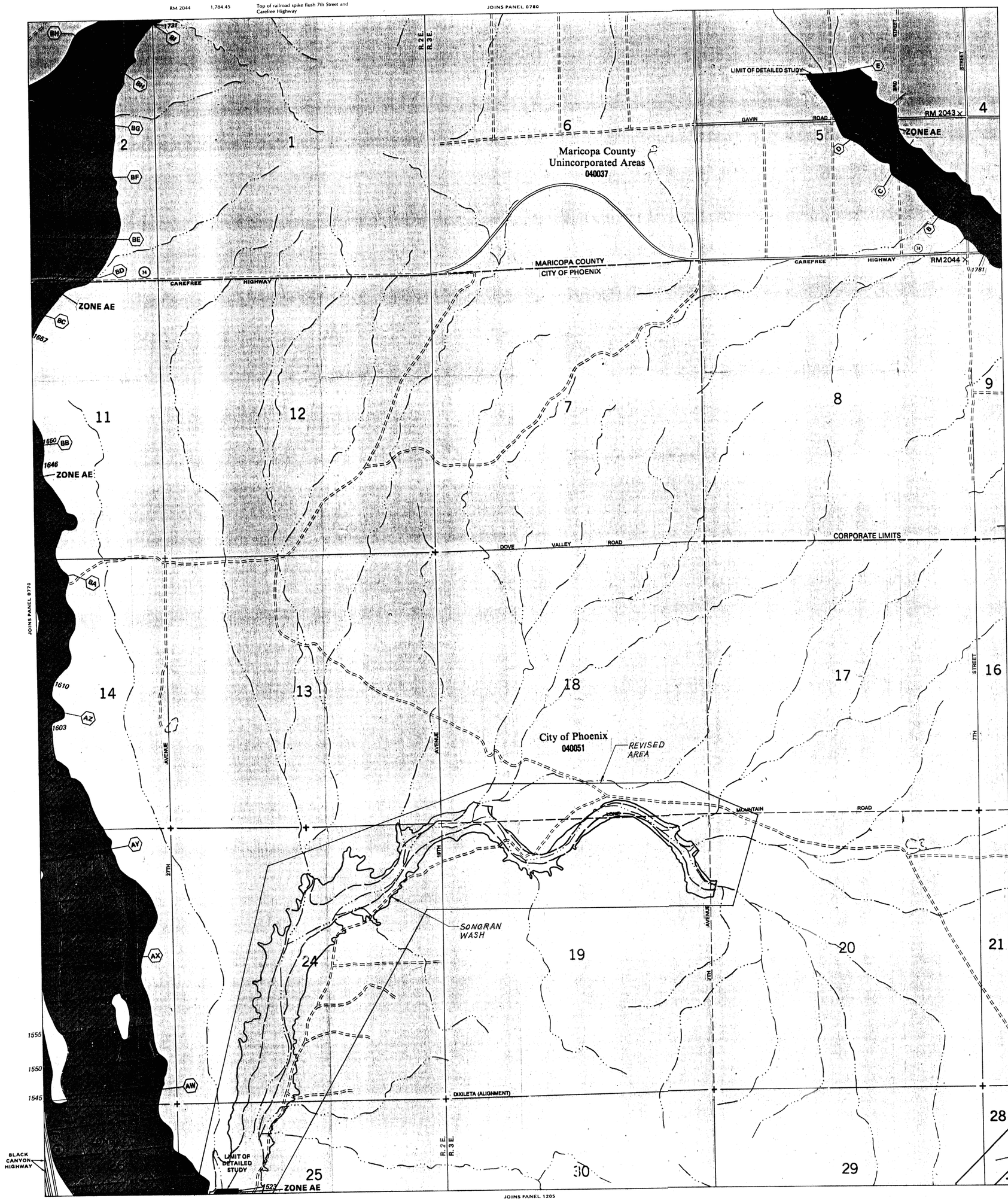
MAP NUMBER
04013C1205 E

MAP REVISED:
DECEMBER 3, 1993

Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM 2043	1,797.59	Maricopa County Highway Department brass cap, flush 7th Street and Galvin Street
RM 2044	1,784.45	Top of railroad spike flush 7th Street and Carefree Highway



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 5 NORTH, RANGE 2 EAST AND TOWNSHIP 5 NORTH, RANGE 3 EAST

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** — No base flood elevations determined.
- **ZONE AE** — Base flood elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** — To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** — Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside 500-year flood plain.
- **ZONE D** — Areas in which flood hazards are undetermined.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

RM7 X — Elevation Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Areas of special flood hazard (100-year flood) include Zones A, A1-30, AE, AH, AO, A99, V, V1-30 AND VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of the map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index

MAP REPOSITORY

Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:

APRIL 15, 1988

EFFECTIVE DATE (S) OF REVISION (S) TO THIS PANEL:

Map revised SEPTEMBER 30, 1995 to update corporate limits, to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to change zone designations, to add and update roads and road names, to reflect updated topographic information, to incorporate previously issued letters of map revision, and to incorporate previously issued letters of map amendment.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA AND INCORPORATED AREAS

PANEL 790 OF 4350

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY, UNINCORPORATED AREAS	040037	0790	E
PHOENIX, CITY OF	040051	0790	E

MAP NUMBER
04013C0790E

MAP REVISED:
SEPTEMBER 30, 1995

Federal Emergency Management Agency

APPENDIX L

SURVEY DATA

FLOODPLAIN AND FLOODWAY DELINEATION FOR SONORAN WASH

SURVEY DATA REPORT

PREPARED BY:

TETRA TECH, INC
4801 East Washington Street,Suite 260
Phoenix, Arizona 85034
(602) 682-3300

July 2001

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1.3 DATUM 1

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2B Raw GPS Data
2C Supplemental Topography Points at CAP Canal

1.1 Introduction

Survey control for the Sonoran Wash Floodplain/Floodway Delineation was done by Tetra Tech, Inc. Horizontal and vertical control was established for preparation of aerial mapping. New elevation reference marks (ERMs) were set in the Sonoran Wash watershed. Additional ground survey work was done in the area of the CAP Canal in support of the FLO-2D hydraulic modeling. Elevations were determined to third order accuracy or better. All survey work meets or exceeds Federal Management Agency (FEMA) minimum criteria as defined in FEMA Document 37, Flood Insurance Study Guidelines and Specifications for Study Contractors, January 1995.

1.2 Survey Equipment

The survey equipment used for this study was the Trimble Navigation GPS Unit 4700 Ssi RTK Total Station. This consists of a base station, roving unit, and a data collector. Raw data was post-processed using TrimMap software.

1.3 Datum

The coordinate grid system is based upon the North American Datum of 1983 (NAD83), Arizona State Plane Coordinate System. Elevations are based upon National Geodetic Vertical Datum of 1929 (NGVD29). The published NGVD29 elevations from the National Geodetic Survey (NGS) data for the control stations were used during the field work, so no vertical data conversion was necessary afterward.

1.4 Previous Studies

Survey data for this study was back-checked to a previous study; Skunk Creek Floodplain Delineation, by Montgomery Watson, FCD 95-16. Photogrammetric control for that study was done by Collins/Pina Consulting Engineers, Inc.

1.5 Control Stations

Table 1 lists the NGS/USGS control stations that were used for this study.

Coordinate and elevation units are international feet.

Table 1: Survey Control Stations

NAME	NORTHING	EASTING	ELEVATION	TYPE
SKUNK	991620.645	638472.746	1468.80	NGS
NR03	1057533.321	649359.451	2108.89	NGS
2HRP	1061678.246	647234.351	2149.72	USGS BM
4HRP	1044808.439	654974.964	1994.20	USGS BM
NR17	1018271.165	644542.231	1841.35	NGS
S56	1014345.170	634967.632	1647.39	USGS BM
1625 PHNX	1011819.564	635079.236	1624.90	USGS BM
M343	997812.568	636904.352	1510.27	NGS

1.6 Panel Points

Panel points for Sonoran Wash mapping control were set in July 1999. Those points are listed in Table 2 and shown on Figure 1. Aerial photography and mapping for this project was completed by Aerial Mapping Company (Job #99148). The photographs were taken on July 20, 1999. Coordinate and elevation units are international feet.

Table 2: Panel Points for Sonoran Wash Aerial Mapping

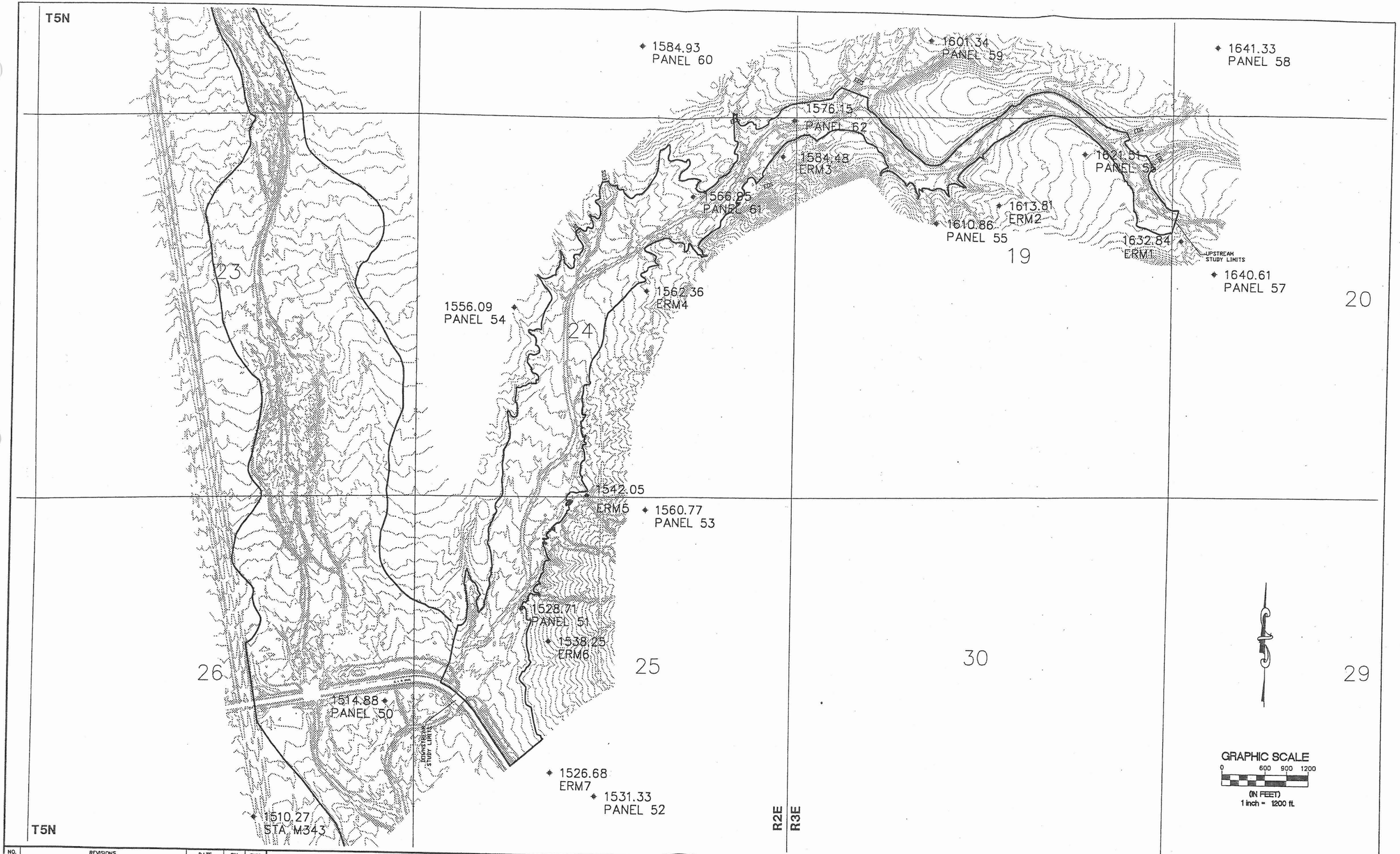
POINT #	NORTHING	EASTING	ELEVATION
50	999407.675	638709.111	1514.88
51	1000709.143	640578.631	1528.71
52	998158.967	641636.424	1531.33
53	1002086.982	642292.942	1560.77
54	1004871.680	640419.112	1556.09
55	1006109.789	646314.418	1610.86
56	1007102.815	648405.305	1621.51
57	1005467.538	650221.674	1640.61
58	1008584.954	650214.141	1641.33
59	1008627.884	646211.367	1601.34
60	1008482.484	642156.740	1584.93
61	1006431.409	642906.239	1566.95
62	1007475.707	644315.803	1576.15

1.7 Sonoran Wash Elevation Reference Marks

Seven elevation reference marks (ERMs) were set in the Sonoran Wash watershed in June 2001. All monuments are Flood Control District of Maricopa County 3 inch brass caps set in concrete per Maricopa Association of Governments (MAG) Standard 120-1. The study area is located in undeveloped, natural land. There were no permanent structures in the watershed suitable for use in establishing ERMs. Table 3 lists the ERM data and descriptions. The locations of the ERMs are shown on Figure 1. Coordinate and elevation units are international feet.

Table 3: Sonoran Wash Elevation Reference Marks

ERM #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1005919.805	649757.330	1632.84	1.3 ft North of steel T-post, 26.0 ft South of the centerline of an 8-ft wide E/W dirt road, and 1.6± miles East of the Northwest corner of the landscape materials gravel pit.
2	1006383.450	647183.030	1613.81	1.4 ft North of a steel T-post, 27 ft ENE of a single saguaro cactus, 44.1 ft South of the centerline of an 8-ft wide dirt road, and 1.1± miles East of the Northwest corner of the landscape materials gravel pit.
3	1006978.382	644162.738	1584.48	1.3 ft North of a steel T-post, 11.7 ft North of the centerline of an 8-ft wide SW/NE dirt road, 43.2 ft SW of a multi-armed saguaro cactus, and 0.6± miles East of the Northwest corner of the landscape materials gravel pit.
4	1005114.697	642265.756	1562.36	1.6 ft North of a steel T-post, 42 ft East of the centerline of a 12-ft wide N/S dirt road, and 335± NNW of the Northwest corner of the landscape materials gravel pit.
5	1002279.604	641483.706	1542.05	1.2 ft North of a steel T-post, 19 ft South of the centerline of an 8-ft wide E/W dirt road, 56 ft North of the centerline of a 12-ft wide E/W dirt road.
6	1000261.013	640965.392	1538.25	1.4 ft North of a steel T-post and 33 ft Northeast of a multi-armed saguaro cactus.
7	998471.032	641005.540	1526.68	2.2 ft North of a steel T-post, 22 ft South of the centerline of an 8-ft wide SE/NW dirt road, 53 ft West of a N/S fence line (T-posts no wire), and 275± ft East of the Eastern top edge of the CAP Canal levee.



NO.	REVISIONS	DATE	BY	CHK.

SONORAN_SURVEYPOINTS.DWG

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
4801 East Washington Street, Suite 260, Phoenix, AZ 85034
(602) 682-3300 FAX (602) 244-1164

SONORAN WASH
FLOODPLAIN/FLOODWAY DELINEATION

JOB NO.	2350.0002
DESIGNED BY:	LML
DRAWN BY:	LML
CHECKED BY:	JAD
APPROVED BY:	JAD
DATE:	7/10/01

FIGURE 1
Sonoran Wash
Point Locations & ERMs

SCALE:	HORIZ: 1"= 1200'
	CONT. INTERVAL = 2'
DRAWING NO.	FIG1
SHEET NO.	1
OF:	1

APPENDICES

APPENDIX A

NGS Data Sheets

APPENDIX A

NGS Data Sheets

11

The NGS Data Sheet

```
DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 5.85
Starting Datasheet Retrieval...
1        National Geodetic Survey,   Retrieval Date = JULY 12, 1999
DV0122 ***********************************************************************
DV0122 DESIGNATION - SKUNK
DV0122  PID          -  DV0122
DV0122  STATE/COUNTY-  AZ/MARICOPA
DV0122  USGS QUAD    -  UNION HILLS (1983)
DV0122
DV0122                          *CURRENT SURVEY CONTROL
DV0122
DV0122* NAD 83(1992)-  33 43 32.39095(N)     112 07 08.51535(W)      ADJUSTED
DV0122* NAVD 88      -       448.28   (+/-2cm)     1470.7     (feet)  VERTCON
DV0122
DV0122  LAPLACE CORR-           3.15  (seconds)                       DEFLEC96
DV0122  GEOID HEIGHT-         -29.35  (meters)                        GEOID96
DV0122
DV0122  HORZ ORDER   -  SECOND                418.93 EL.
DV0122  VERT ORDER   -  FIRST      CLASS II (See Below)
DV0122
DV0122.The horizontal coordinates were established by classical geodetic methods
DV0122.and adjusted by the National Geodetic Survey in August 1993.
DV0122
DV0122.The NAVD 88 height was computed by applying the VERTCON shift value to
DV0122.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
DV0122.The vertical order pertains to the superseded datum.
DV0122
DV0122.The Laplace correction was computed from DEFLEC96 derived deflections.
DV0122
DV0122.The geoid height was determined by GEOID96.
DV0122
DV0122;                     North          East      Units   Scale       Converg.
DV0122;SPC AZ C      -   302,245.973   194,606.493   MT  0.99990433 -0 06 44.5
DV0122;UTM  12       - 3,732,300.995   396,326.248   MT  0.99973250 -0 37 16.9
DV0122
DV0122:                  Primary Azimuth Mark                        Grid Az
DV0122:SPC AZ C      -  PYRAMID PK RESET                            292 35 09.0
DV0122:UTM  12       -  PYRAMID PK RESET                            293 05 41.4
DV0122
DV0122|-----------------------------------------------------------------------|
DV0122| PID    Reference Object                    Distance       Geod. Az   |
DV0122|                                                           dddmmss.s  |
DV0122| DV0123 SKUNK RM 1                      20.092 METERS      09119      |
DV0122| DV2004 UNION                                              14157      |
DV0122| DV2003 ADOBE                                              17639      |
DV0122| DV0121 SKUNK AZ MK                                        20024      |
DV0122| DV0116 HEDGPETH                                           20045      |
DV0122| DV0170 PAT                                                22130      |
DV0122| DV2029 PYRAMID PK RESET                APPROX. 6.2 KM     2922824.5  |
DV0122| DV0132 MUNSON                                             34815      |
DV0122| DV0125 Q 56                           168.573 METERS      35020      |
DV0122| DV0124 SKUNK RM 2                      14.533 METERS      35603      |
DV0122|-----------------------------------------------------------------------|
DV0122
DV0122                          SUPERSEDED SURVEY CONTROL
DV0122
DV0122  NAD 83(1986)-  33 43 32.38631(N)     112 07 08.52136(W) AD(       ) 2
DV0122  NAD 27       -  33 43 32.25100(N)     112 07 05.96800(W) AD(       ) 2
DV0122  NGVD 29      -       447.692  (m)          1468.80   (f) ADJ UNCH    1 2
DV0122
```

DV0122.Superseded values are not recommended for survey control.
DV0122.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
DV0122.See file dsdata.txt to determine how the superseded data were derived.
DV0122
DV0122_MARKER: DS = TRIANGULATION STATION DISK
DV0122_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DV0122_STAMPING: SKUNK 1947
DV0122_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DV0122+STABILITY: SURFACE MOTION
DV0122

DV0122 HISTORY	- Date	Condition	Recov. By
DV0122 HISTORY	- 1947	MONUMENTED	CGS
DV0122 HISTORY	- 1959	GOOD	CGS
DV0122 HISTORY	- 1970	GOOD	NGS
DV0122 HISTORY	- 1970	GOOD	NGS
DV0122 HISTORY	- 1972	GOOD	AZHD
DV0122 HISTORY	- 1977	GOOD	LOCENG
DV0122 HISTORY	- 1982	GOOD	AZDT
DV0122 HISTORY	- 1986	GOOD	AZDT

DV0122
DV0122 STATION DESCRIPTION
DV0122
DV0122'DESCRIBED BY COAST AND GEODETIC SURVEY 1947 (DHK)
DV0122'LOCATED ON THE EAST SIDE OF STATE HIGHWAY 69. ABOUT 19 MILES
DV0122'NORTH OF PHOENIX AND 14 MILES NORTH-NORTHEAST OF GLENDALE.
DV0122'IT IS 44 FEET WEST OF A FENCE CORNER, 52.5 FEET EAST OF THE
DV0122'CENTER LINE OF THE HIGHWAY, 115.5 FEET SOUTHEAST OF A CATTLE
DV0122'GUARD AND 5.7 FEET SOUTH OF A WITNESS POST. IT IS STAMPED
DV0122'SKUNK 1947 AND PROJECTS 2 INCHES.
DV0122'
DV0122'REFERENCE MARK NO. 1 IS 2.5 FEET SOUTH OF AN EAST AND WEST
DV0122'FENCE LINE. IT IS STAMPED SKUNK NO 1 1947 AND PROJECTS 3
DV0122'INCHES.
DV0122'
DV0122'REFERENCE MARK NO. 2 IS 75 FEET SOUTHEAST OF A CATTLE GUARD,
DV0122'50 FEET EAST OF THE CENTER LINE OF THE HIGHWAY AND 5.5 FEET WEST
DV0122'OF A NORTH AND SOUTH FENCE LINE. IT IS STAMPED SKUNK NO 2
DV0122'1947 AND PROJECTS 3 INCHES.
DV0122'
DV0122'BENCH MARK Q56 IS A STANDARD USC AND GS DISK SET IN A CONCRETE
DV0122'POST PROJECTING 5 INCHES. IT IS 24.5 FEET EAST OF THE CENTER
DV0122'LINE OF THE HIGHWAY AND 45 FEET SOUTH OF A SIDE ROAD. IT IS
DV0122'STAMPED Q 56 1934.
DV0122'
DV0122'THE AZIMUTH MARK IS LOCATED 0.45 MILE SOUTH-SOUTHWEST OF THE
DV0122'STATION. 39.5 FEET WEST OF THE CENTER LINE OF THE HIGHWAY.
DV0122'IT IS STAMPED SKUNK 1947 AND PROJECTS 4 INCHES.
DV0122'
DV0122'TO REACH THE STATION FROM THE SANTA FE RAILROAD DEPOT IN
DV0122'GLENDALE, GO SOUTHEAST ON U.S. HIGHWAYS 60, 70, AND 89 FOR 2.6
DV0122'MILES TO THEIR JUNCTION WITH STATE HIGHWAY 69. TURN LEFT
DV0122'AND FOLLOW HIGHWAY 69 FOR 4.6 MILES TO THE ARIZONA CANAL.
DV0122'CONTINUE ON HIGHWAY FOR 10.55 MILES TO A CROSSROAD. CONTINUE
DV0122'STRAIGHT AHEAD 0.15 MILE TO THE STATION ON THE RIGHT.
DV0122
DV0122 STATION RECOVERY (1959)
DV0122
DV0122'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1959 (SLH)
DV0122'ALL MARKS WERE RECOVERED AS DESCRIBED AND IN GOOD CONDITION.
DV0122'A NEW WITNESS POST WAS SET, MEASUREMENTS TO THE MARKS ARE AS
DV0122'FOLLOWS--
DV0122'
DV0122'WITNESS POST TO--STATION MARK 29.5 FEET WEST
DV0122'

DV0122'R.M. 1 40.0 FEET EAST
DV0122'
DV0122'R.M. 2 55.1 FEET NORTHWEST
DV0122'
DV0122'THE OLD ROAD HAS BEEN RELOCATED AND THE STATION IS NOW REACHED
DV0122'FROM THE JUNCTION OF CAMELBACK ROAD AND BLACK CANYON HIGHWAY
DV0122'IN PHOENIX BY GOING NORTH ON ARIZONA STATE HIGHWAY 69 FOR 14.3
DV0122'MILES TO A GRADED ROAD ON THE RIGHT. THIS IS 0.1 MILE SOUTH
DV0122'OF THE BRIDGE OVER SKUNK CREEK. TURN RIGHT THROUGH A CATTLE
DV0122'GUARD AND GO EAST FOR 0.1 MILE TO A TRACK ROAD RIGHT, TURN
DV0122'RIGHT AND GO 0.05 MILE SOUTHWEST TO AN EAST-WEST FENCE AND
DV0122'THE STATION.
DV0122'
DV0122'TO REACH THE AZIMUTH MARK FROM THE STATION, RETURN TO THE
DV0122'CATTLE-GUARD, TURN LEFT AND GO SOUTH ON ARIZONA STATE HIGHWAY
DV0122'69 FOR 0.35 MILE TO A GRADED ROAD ON THE RIGHT, TURN RIGHT AND
DV0122'FOLLOW THE ROAD SOUTHWESTERLY FOR 0.15 MILE TO THE AZIMUTH
DV0122'MARK ON THE RIGHT, 40 FEET WEST OF THE CENTER OF THE DIRT ROAD.
DV0122
DV0122 STATION RECOVERY (1970)
DV0122
DV0122'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970 (LFS)
DV0122'ALL MARKS WERE RECOVERED AND FOUND IN GOOD CONDITION. THE
DV0122'1959 DESCRIPTION IS ADEQUATE.
DV0122
DV0122 STATION RECOVERY (1970)
DV0122
DV0122'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
DV0122'12.6 MI S FROM NEW RIVER.
DV0122'12.6 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE OVER NEW
DV0122'RIVER OR 0.2 MILE SOUTH FROM THE HIGHWAY BRIDGE OVER SKUNK RIVER. 52.5
DV0122'FEET EAST OF THE CENTER OF AN OLD GRAVELED ROAD 115 FEET SOUTHEAST OF
DV0122'A CATTLE GUARD 5 1/2 FEET SOUTH OF A WITNESS POST AND ABOUT 200 FEET
DV0122'EAST OF THE EAST FRONTAGE ROAD. THE MARK IS SET IN THE TOP OF A 12
DV0122'INCH CONCRETE MONUMENT WHICH PROJECTS ABOUT 2 INCHES.
DV0122
DV0122 STATION RECOVERY (1972)
DV0122
DV0122'RECOVERY NOTE BY ARIZONA HIGHWAY DEPARTMENT (NOW AZDT) 1972
DV0122'GENERAL LOCATION PHX TO PARKER
DV0122'
DV0122'TO REACH AS PER USC AND GS DESCRIPTION AND RECOVERY NOTES
DV0122'
DV0122'STATION MARK STD. USC AND GS B.C.
DV0122'
DV0122'REFERENCE MARKS GOOD
DV0122
DV0122 STATION RECOVERY (1977)
DV0122
DV0122'RECOVERY NOTE BY LOCAL ENGINEER (INDIVIDUAL OR FIRM) 1977 (FB)
DV0122'SKUNK 1947 RECOVERED GOOD.
DV0122'
DV0122'SKUNK NO. 1 1947 RECOVERED GOOD.
DV0122'
DV0122'SKUNK NO. 2 1947 RECOVERED GOOD.
DV0122'
DV0122'DISTANCE AND DIRECTION FROM NEAREST TOWN--6 MILES NORTH OF PHOENIX,
DV0122'ARIZ.
DV0122
DV0122 STATION RECOVERY (1982)
DV0122
DV0122'RECOVERY NOTE BY ARIZONA DEPARTMENT OF TRANSPORTATION 1982 (GH)
DV0122'THE STATION MARK, REFERENCE MARKS AND THE AZIMUTH MARK WERE RECOVERED
DV0122'AS DESCRIBED IN 1959. A NEW ROUTE TO THE STATION FOLLOWS.

DV0122'
DV0122'TO REACH THE STATION FROM INTERSTATE HIGHWAY 17 AND HAPPY VALLEY ROAD
DV0122'TRAFFIC INTERCHANGE IN NORTHERN PHOENIX TRAVEL NORTH ALONG THE EAST
DV0122'FRONTAGE ROAD FOR 0.9 MILE TO THE STATION 220 FEET TO THE RIGHT AND BY
DV0122'A FENCE LINE.
DV0122'
DV0122'TO REACH THE AZIMUTH MARK FROM INTERSTATE HIGHWAY 17 AND HAPPY VALLEY
DV0122'ROAD, TRAVEL NORTH ALONG THE WEST FRONTAGE ROAD FOR 0.7 MILE TO A
DV0122'CATTLE GUARD AND A ROAD LEFT. TURN LEFT CROSSING THE CATTLE GUARD AND
DV0122'BEAR LEFT FOR 0.1 MILE TO THE MARK ON THE RIGHT.
DV0122
DV0122 STATION RECOVERY (1986)
DV0122
DV0122'RECOVERY NOTE BY ARIZONA DEPARTMENT OF TRANSPORTATION 1986 (ART)
DV0122'THE STATION MARK, REFERENCE MARKS AND THE AZIMUTH MARK WERE RECOVERED
DV0122'AS DESCRIBED AND FOUND IN GOOD CONDITION. THE AZIMUTH MARK IS
DV0122'OBSTRUCTED FROM THE STATION BY SMALL TREES. A NEW ROUTE TO THE
DV0122'STATION FOLLOWS.
DV0122'
DV0122'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE HIGHWAY 17
DV0122'AND HAPPY VALLEY ROAD IN NORTHERN PHOENIX, TRAVEL EAST ALONG HAPPY
DV0122'VALLEY ROAD FOR 0.15 MILE TO A DIRT ROAD ON THE LEFT WHICH IS JUST
DV0122'EAST OF THE FRONTAGE ROAD. TURN LEFT AND TRAVEL NORTH ALONG DIRT ROAD
DV0122'WHICH PARALLELS THE FREEWAY FOR ABOUT 1 MILE TO AN EAST WEST FENCE
DV0122'AND THE STATION ON THE LEFT AT THE SOUTH SIDE OF THE FENCE LINE. THE
DV0122'STATION CAN ALSO BE REACHED BY DRIVING NORTH 1 MILE ALONG THE FRONTAGE
DV0122'ROAD TO THE EAST-WEST FENCE LINE AND WALKING EAST ALONG THE SOUTH SIDE
DV0122'OF THE FENCE FOR ABOUT 150 FEET.

*** retrieval complete.
Elapsed Time = 00:00:09

1 National Geodetic Survey, Retrieval Date = APRIL 17, 1998

DV0129 **********

DV0129 DESIGNATION - M 343

DV0129 PID - DV0129

DV0129 STATE/COUNTY- AZ/MARICOPA

DV0129 USGS QUAD - UNION HILLS (1983)

DV0129

DV0129 CURRENT SURVEY CONTROL

DV0129 ---

DV0129* NAD 83(1992)- 33 44 33.62100(N) 112 07 27.23336(W) ADJUSTED

DV0129* NAVD 88 - 460.92 (+/-2cm) 1512.2 (feet) VERTCON

DV0129 ---

DV0129 LAPLACE CORR- 3.17 (seconds) DEFLEC96

DV0129 GEOID HEIGHT- -29.32 (meters) GEOID96

DV0129

DV0129 HORZ ORDER - FIRST

DV0129 VERT ORDER - SECOND CLASS 0 (See Below)

DV0129

DV0129.The horizontal coordinates were established by GPS observations

DV0129.and adjusted by the National Geodetic Survey in November 1997.

DV0129

DV0129.The NAVD 88 height was computed by applying the VERTCON shift value to

DV0129.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

DV0129.The vertical order pertains to the superseded datum.

DV0129

DV0129.The Laplace correction was computed from DEFLEC96 derived deflections.

DV0129

DV0129.The geoid height was determined by GEOID96.

DV0129

		North	East	Units	Scale	Converg.
DV0129;SPC AZ C	-	304,133.271	194,128.447	MT	0.99990456	-0 06 55.1
DV0129;UTM 12	-	3,734,192.142	395,865.070	MT	0.99973368	-0 37 28.3

DV0129

DV0129 SUPERSEDED SURVEY CONTROL

```
 DV0129
 DV0129  NGVD 29      -        460.331  (meters)     1510.27    (feet)  AD
J UNCH
 DV0129
 DV0129.Superseded values are not recommended for survey control.
 DV0129.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 DV0129.See file format.dat to determine how the superseded data were
derived.
 DV0129
 DV0129_MARKER: DB = BENCH MARK DISK
 DV0129_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)
 DV0129_STAMPING: M 343 1959
 DV0129_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 DV0129+STABILITY: SURFACE MOTION
 DV0129_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DV0129+SATELLITE: SATELLITE OBSERVATIONS - January 24, 1997
 DV0129
 DV0129  HISTORY      - Date      Condition        Recov. By
 DV0129  HISTORY      - 1959      MONUMENTED       CGS
 DV0129  HISTORY      - 1970      GOOD             NGS
 DV0129  HISTORY      - 19970124  GOOD             ATEAM
 DV0129
 DV0129                            STATION DESCRIPTION
 DV0129
 DV0129'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970
 DV0129'11.4 MI S FROM NEW RIVER.
 DV0129'11.4 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE O
VER NEW
 DV0129'RIVER OR 0.1 MILE NORTH OF MILE POST 220.  33 1/2 FEET WEST OF
 THE
 DV0129'CENTER LINE OF THE WEST FRONTAGE ROAD, 3 FEET NORTHEAST OF THE
 WITNESS
 DV0129'POST AND 2 FEET EAST OF THE RIGHT OF WAY FENCE LINE.  THE MARK
 IS SET
 DV0129'IN THE TOP OF A 12 INCH ROUND CONCRETE MONUMENT WHICH PROJECTS
 2
 DV0129'INCHES.
 DV0129
 DV0129                            STATION RECOVERY (1997)
 DV0129
 DV0129'RECOVERY NOTE BY A TEAM PA INC 1997 (WRK)
 DV0129'RECOVERED AS DESCRIBED BY NGS OF 1970.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 DV0137 **********************************************************
*********
 DV0137 [redacted]
 DV0137  PID          -  DV0137
```

dsdata

DV0137 STATE/COUNTY- AZ/MARICOPA
DV0137 USGS QUAD - BISCUIT FLAT (1982)
DV0137
DV0137 *CURRENT SURVEY CONTROL
DV0137 ---

DV0137* NAD 83(1992)- 33 49 20.56336(N) 112 08 13.14414(W) AD JUSTED
DV0137* NAVD 88 - 620.05 (+/-2cm) 2034.3 (feet) VE RTCON
DV0137 ---

DV0137 LAPLACE CORR- 3.58 (seconds) DE FLEC96
DV0137 GEOID HEIGHT- -29.10 (meters) GE OID96
DV0137
DV0137 HORZ ORDER - FIRST
DV0137 VERT ORDER - SECOND CLASS 0 (See Below)
DV0137
DV0137.The horizontal coordinates were established by GPS observation s
DV0137.and adjusted by the National Geodetic Survey in November 1997.
DV0137
DV0137.The NAVD 88 height was computed by applying the VERTCON shift value to
DV0137.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
DV0137.The vertical order pertains to the superseded datum.
DV0137
DV0137.The Laplace correction was computed from DEFLEC96 derived defl ections.
DV0137
DV0137.The geoid height was determined by GEOID96.
DV0137
DV0137; North East Units Scale Converg.
DV0137;SPC AZ C - 312,975.753 192,965.739 MT 0.99990513 -0 07 21.5
DV0137;UTM 12 - 3,743,043.116 394,781.263 MT 0.99973648 -0 37 58.5
DV0137
DV0137: Primary Azimuth Mark Grid Az
DV0137:SPC AZ C - HOUND 348 5 5 43.5
DV0137:UTM 12 - HOUND 349 2 6 20.5

DV0137
DV0137|----------
DV0137| PID Reference Object Distance Geo
d. Az |
DV0137| ddd
mmss.s |
DV0137| DV0138 MICRO RM 1 19.356 METERS 013
26 |
DV0137| DV0139 MICRO RM 2 11.688 METERS 082
53 |
DV0137| MICRO RM 3 9.715 METERS 120
07 |
DV0137| DV0142 HOUND APPROX. 3.8 KM 348
4822.0 |
DV0137|----------
DV0137
DV0137 SUPERSEDED SURVEY CONTROL
DV0137
DV0137 NAD 83(1986)- 33 49 20.55675(N) 112 08 13.14826(W) AD
JUSTED
DV0137 NAD 83(1992)- 33 49 20.56199(N) 112 08 13.14431(W) AD
JUSTED
DV0137 NAD 27 - 33 49 20.42370(N) 112 08 10.59120(W) AD
JUSTED
DV0137 NGVD 29 - 619.454 (meters) 2032.33 (feet) AD
J UNCH
DV0137
DV0137.Superseded values are not recommended for survey control.
DV0137.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
DV0137.See file format.dat to determine how the superseded data were
derived.
DV0137
DV0137_MARKER: DS = TRIANGULATION STATION DISK
DV0137_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)
DV0137_STAMPING: MICRO 1959
DV0137_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DV0137+STABILITY: SURFACE MOTION
DV0137_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DV0137+SATELLITE: SATELLITE OBSERVATIONS - January 24, 1997
DV0137
DV0137 HISTORY - Date Condition Recov. By
DV0137 HISTORY - 1959 MONUMENTED CGS
DV0137 HISTORY - 1967 GOOD USE
DV0137 HISTORY - 1970 GOOD NGS
DV0137 HISTORY - 1970 GOOD NGS

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DV0137  HISTORY      - 1971     GOOD              USE
DV0137  HISTORY      - 19970124 GOOD              ATEAM
DV0137
DV0137                          STATION DESCRIPTION
DV0137
DV0137'DESCRIBED BY COAST AND GEODETIC SURVEY 1959 (JLH)
DV0137'THE STATION IS LOCATED ON A SMALL SHARP HILL 0.3 MILE EAST OF
DV0137'ARIZONA STATE HIGHWAY 69, INSIDE THE FENCED YARD OF THE
DV0137'MOUNTAIN STATE TELEPHONE AND TELEGRAPH COMPANY MICRO-WAVE
DV0137'STATION.
DV0137'
DV0137'TO REACH THE STATION FROM THE INTERSECTION OF CAMELBACK ROAD
DV0137'AND BLACK CANYON HIGHWAY IN PHOENIX, GO NORTH ON ARIZONA
DV0137'STATE HIGHWAY 69 FOR 20.5 MILES TO A ROAD RIGHT, OPPOSITE
DV0137'THE MICRO-WAVE TOWER.  TURN RIGHT AND GO EASTERLY THROUGH A
DV0137'LOCKED GATE, FOLLOWING THE WINDING GRADED ROAD TOWARD THE
DV0137'TOWER FOR 0.5 MILE TO ANOTHER LOCKED GATE, GO THROUGH THIS
DV0137'GATE AND CONTINUE FOR 0.1 MILE TO THE TOP OF THE HILL AND
DV0137'THE STATION ON THE WESTERN EDGE OF A FLATTENED AREA.  KEYS
DV0137'TO THE LOCKED GATES ARE OBTAINABLE FROM THE MOUNTAIN STATE
DV0137'TELEPHONE AND TELEGRAPH COMPANY AT 16 WEST MC DOWELL ROAD,
DV0137'PHOENIX.
DV0137'
DV0137'THE STATION MARK IS A STANDARD DISK STAMPED MICRO 1959, SET IN
DV0137'A SQUARE CONCRETE MONUMENT THAT PROJECTS 2 INCHES.  IT IS 29
DV0137'FEET WEST OF THE NORTHWEST CORNER OF THE METAL BUILDING USED
DV0137'TO HOUSE THE POWER UNIT OF THE MICRO-WAVE STATION AND 8.2
DV0137'FEET NORTHEAST OF A WITNESS POST.
DV0137'
DV0137'R.M. 1 IS A STANDARD DISK STAMPED MICRO NO 1 1959, SET IN A
DV0137'DRILL HOLE IN A BOULDER THAT PROJECTS 8 INCHES AND IS 69.9
DV0137'FEET NORTH OF THE WITNESS POST.  IT IS ABOUT 4 FEET LOWER THAN
DV0137'THE STATION MARK.
DV0137'
DV0137'R.M. 2 IS A STANDARD DISK STAMPED MICRO NO 2 1959, SET IN A
DV0137'DRILL HOLE IN THE CONCRETE BASE OF THE NORTHWEST LEG OF THE
DV0137'MICRO-WAVE TOWER AND IS 45.7 FEET EAST OF THE WITNESS POST.
DV0137'
DV0137'TRIANGULATION STATION HOUND CAN BE USED AS AN AZIMUTH MARK.
DV0137'(SEE DESCRIPTION THEREOF.)
DV0137
DV0137                          STATION RECOVERY (1967)
DV0137
DV0137'RECOVERY NOTE BY US ENGINEERS 1967 (MGJ)
DV0137'THE STATION MARK, R.M. NO. 1, R.M. NO. 2.  RECOVERED AS DESCRI
BED
DV0137'AND IN GOOD CONDITION.
DV0137'
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 DV0137'R.M. NO 1, PUB DIST = 63.53 FT., CHECK DIST = 63.5 FT.
 DV0137'
 DV0137'R.M. NO 2., PUB DIST = 38.35, CHECK DIST = 38.6.
 DV0137
 DV0137                          STATION RECOVERY (1970)
 DV0137
 DV0137'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970 (LFS)
 DV0137'ALL MARKS WERE RECOVERED AND FOUND IN GOOD CONDITION.  THE
 DV0137'1959 DESCRIPTION IS ADEQUATE.
 DV0137'
 DV0137'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN--6.0 MILES
 DV0137'SOUTH OF NEW RIVER.
 DV0137
 DV0137                          STATION RECOVERY (1970)
 DV0137
 DV0137'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
 DV0137'6.0 MI S FROM NEW RIVER.
 DV0137'6.0 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE OV
ER NEW
 DV0137'RIVER TO PIONEER INTERCHANGE, THENCE 0.5 MILE EAST ALONG THE G
RADED
 DV0137'ROAD TO THE MICRO TOWER AND THE MARK.  29 FEET WEST OF THE NOR
THWEST
 DV0137'CORNER OF THE METAL BUILDING, 63 1/2 FEET SOUTH OF REFERENCE M
ARK 1,
 DV0137'38 FEET WEST OF REFERENCE MARK 2 AND 8 FEET NORTHEAST OF THE W
ITNESS
 DV0137'POST.  THE MARK IS SET IN THE TOP OF A 18 INCH SQUARE CONCRETE
 DV0137'MONUMENT WHICH PROJECTS ABOUT 2 INCHES.  NOTE-- KEYS AND PERMI
SSION TO
 DV0137'ENTER THE FENCED COMPOUND CAN BE OBTAINED FROM MOUNTAIN STATE
 DV0137'TELEPHONE AND TELEGRAPH CO. 16 WEST MCDOWELL ROAD IN PHOENIX.
 DV0137
 DV0137                          STATION RECOVERY (1971)
 DV0137
 DV0137'RECOVERY NOTE BY US ENGINEERS 1971 (EMB)
 DV0137'MICRO 1959 - GOOD.
 DV0137'
 DV0137'MICRO NO 1 1959 - GOOD.
 DV0137'
 DV0137'MICRO NO 2 1959 - GOOD.
 DV0137'
 DV0137'DESCRIPTION IS ADEQUATE.
 DV0137
 DV0137                          STATION RECOVERY (1997)
 DV0137
 DV0137'RECOVERY NOTE BY A TEAM PA INC 1997 (WRK)
 DV0137'RECOVERY NOTE ADDITIONS BY A TEAM PROFESSIONAL ASSOCIATES 1996
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  (BAR),
  DV0137'TO REACH STATION FROM EXIT 225 (PIONEER ROAD) OF INTERSTATE 17
, TRAVEL
  DV0137'EAST OF INTERCHANGE TO A DIRT ROAD. CONTINUE ALONG DIRT ROAD F
OR 0.7
  DV0137'MI (1.13 KM) TO MICROWAVE TOWER AND TOP OF HILL. STATION IS AP
PROX. 20
  DV0137'FT (6.10 M) WEST OF OLD TOWER LEG FOOTING. MONUMENTS RECOVERED
  AS
  DV0137'DESCRIBED IN NOTE OF 1959.
1         National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
  DV0148 ***********************************************************
*********
  DV0148 DESIGNATION  -  NEW
  DV0148   PID          -  DV0148
  DV0148   STATE/COUNTY-  AZ/MARICOPA
  DV0148   USGS QUAD    -  NEW RIVER (1986)
  DV0148
  DV0148                          *CURRENT SURVEY CONTROL
  DV0148   ______________________________________________________________
_____
  DV0148* NAD 83(1992)-   33 53 38.41095(N)     112 08 37.51855(W)      AD
JUSTED
  DV0148* NAVD 88     -        618.26   (+/-2cm)     2028.4     (feet)   VE
RTCON
  DV0148   ______________________________________________________________
_____
  DV0148   LAPLACE CORR-            4.49   (seconds)                     DE
FLEC96
  DV0148   GEOID HEIGHT-          -28.83   (meters)                      GE
OID96
  DV0148
  DV0148   HORZ ORDER   -  FIRST
  DV0148   VERT ORDER   -  SECOND    CLASS 0 (See Below)
  DV0148
  DV0148.The horizontal coordinates were established by GPS observation
s
  DV0148.and adjusted by the National Geodetic Survey in November 1997.
  DV0148
  DV0148.The NAVD 88 height was computed by applying the VERTCON shift
value to
  DV0148.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
  DV0148.The vertical order pertains to the superseded datum.
  DV0148
  DV0148.The Laplace correction was computed from DEFLEC96 derived defl
ections.
  DV0148
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 DV0148.The geoid height was determined by GEOID96.
 DV0148
 DV0148;                      North         East      Units   Scale
Converg.
 DV0148;SPC AZ C      -   320,920.903   192,356.536   MT  0.99990544 -0
 07 35.9
 DV0148;UTM  12       - 3,750,992.044   394,243.002   MT  0.99973788 -0
 38 16.4
 DV0148
 DV0148:                 Primary Azimuth Mark                      Grid
Az
 DV0148:SPC AZ C      -  NEW RIVER                                  003 2
7 24.7
 DV0148:UTM  12       -  NEW RIVER                                  003 5
8 05.2
 DV0148
 DV0148|-------------------------------------------------------------
-------|
 DV0148| PID    Reference Object                        Distance      Geo
d. Az  |
 DV0148|                                                              ddd
mmss.s |
 DV0148| DV0151 NEW RIVER                             APPROX. 1.3 KM 003
1948.8 |
 DV0148| DV0147 NEW RM 1                               8.608 METERS 200
36     |
 DV0148| DV0149 NEW RM 2                              19.849 METERS 326
22     |
 DV0148|-------------------------------------------------------------
-------|
 DV0148
 DV0148                          SUPERSEDED SURVEY CONTROL
 DV0148
 DV0148  NAD 83(1986)-  33 53 38.40574(N)    112 08 37.52227(W)     AD
JUSTED
 DV0148  NAD 83(1992)-  33 53 38.41095(N)    112 08 37.51855(W)     AD
JUSTED
 DV0148  NAD 27      -  33 53 38.27500(N)    112 08 34.96000(W)     AD
JUSTED
 DV0148  NGVD 29     -       617.653  (meters)    2026.42   (feet)  AD
J UNCH
 DV0148
 DV0148.Superseded values are not recommended for survey control.
 DV0148.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 DV0148.See file format.dat to determine how the superseded data were
derived.
 DV0148
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DV0148_MARKER: DS = TRIANGULATION STATION DISK
DV0148_SETTING: 80 = SET IN A BOULDER
DV0148_STAMPING: NEW 1924
DV0148_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DV0148+STABILITY: SURFACE MOTION
DV0148_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DV0148+SATELLITE: SATELLITE OBSERVATIONS - January 24, 1997
DV0148
DV0148  HISTORY      - Date     Condition        Recov. By
DV0148  HISTORY      - 1924     MONUMENTED       CGS
DV0148  HISTORY      - 1959     GOOD             CGS
DV0148  HISTORY      - 1959     GOOD             NGS
DV0148  HISTORY      - 19970124 GOOD             ATEAM
DV0148
DV0148                          STATION DESCRIPTION
DV0148
DV0148'DESCRIBED BY COAST AND GEODETIC SURVEY 1924 (WM)
DV0148'ABOUT 31 MILES DUE NORTH OF PHOENIX AND ONE-HALF MILE SOUTH OF
DV0148'NEW RIVER STATION STORE ON THE BLACK CANYON ROAD.  STATION IS
DV0148'ABOUT ONE-QUARTER MILE EAST OF ROAD, ON A SLIGHT RIDGE OR
DV0148'SWELL SLOPING GENTLY TO THE WEST, AND BETWEEN THE ROAD AND
DV0148'POWER TRANSMISSION LINE.  SOME PALOVERDE TREES WERE CUT AT THE
DV0148'STATION AND SOME CHOLLAS BURNED.  STATION IS ABOUT THREE-QUART
ER
DV0148'OF A MILE SOUTHWEST OF SENTINEL PEAK AND 300 YARDS WEST OF THE
DV0148'TRANSMISSION LINE.  MARKED BY A STANDARD BRONZE DISK.
DV0148'REFERENCE MARK, A STANDARD BRONZE
DV0148'REFERENCE DISK IS 8.610 METERS (28.25 FEET) FROM
DV0148'STATION.
DV0148
DV0148                          STATION RECOVERY (1959)
DV0148
DV0148'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1959 (RCM)
DV0148'THE STATION WAS RECOVERED AND THE MARKS WERE FOUND TO BE IN
DV0148'GOOD CONDITION.  REFERENCE MARK 2 WAS ESTABLISHED.  A NEW
DV0148'DESCRIPTION FOLLOWS--THE STATION IS ABOUT 12 MILES SOUTH OF
DV0148'BLACK CANYON, 1 MILE SOUTH OF THE NEW RIVER SERVICE STATION
DV0148'AND 0.3 MILE EAST OF ARIZONA STATE HIGHWAY 69, ON A SLIGHT
DV0148'RISE OF CACTUS AND BRUSH COVERED DESERT LAND.
DV0148'
DV0148'TO REACH THE STATION FROM THE POST OFFICE IN BLACK CANYON,
DV0148'GO SOUTH ON ARIZONA STATE HIGHWAY 69 FOR 12.6 MILES TO THE SUN
DV0148'UP CAFE ON THE LEFT, EAST.  TURN LEFT AND PASS THROUGH A
DV0148'GATE JUST NORTH OF THE CAFE.  TURN RIGHT AND GO SOUTH FOR ABOU
T
DV0148'100 YARDS TO A GATE, PASS THROUGH THE GATE AND TURN LEFT GOING
DV0148'IN AN EASTERLY DIRECTION FOR 0.3 MILE TO THE STATION.
DV0148'
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 DV0148'THE STATION IS A STANDARD DISK, STAMPED NEW 1924, CEMENTED
 DV0148'IN A DRILL HOLE IN A BOULDER WHICH PROJECTS 4 INCHES AND IS.
 DV0148'8.0 FEET NORTHEAST OF A WITNESS POST.
 DV0148'
 DV0148'REFERENCE MARK 1 IS A STANDARD DISK, STAMPED NEW NO 1 1924,
 DV0148'CEMENTED IN A DRILL HOLE IN A BOULDER WHICH PROJECTS 6 INCHES.
 DV0148'
 DV0148'REFERENCE MARK 2 IS A STANDARD DISK, STAMPED NEW NO 2 1958,
 DV0148'CEMENTED IN A DRILL HOLE IN A BOULDER WHICH PROJECTS 6 INCHES.
 DV0148'
 DV0148'TRIANGULATION STATION NEW RIVER CAN BE USED FOR AN AZIMUTH
 DV0148'MARK.  (SEE THE DESCRIPTION THEREOF)
 DV0148
 DV0148                              STATION RECOVERY (1959)
 DV0148
 DV0148'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1959
 DV0148'12.6 MI S FROM BLACK CANYON.
 DV0148'12.6 MILES SOUTH ALONG STATE HIGHWAY 69 FROM THE POST OFFICE I
N BLACK
 DV0148'CANYON, THEN ABOUT 100 YARDS SOUTH OF THE SUN UP CAFE GO EAST
ACROSS
 DV0148'COUNTRY FOR ABOUT 0.3 MILE.  8 FEET NORTHEAST OF THE WITNESS P
OST,
 DV0148'CEMENTED IN A DRILL HOLE IN A BOULDER THAT PROJECTS 4 INCHES.
 DV0148
 DV0148                              STATION RECOVERY (1997)
 DV0148
 DV0148'RECOVERY NOTE BY A TEAM PA INC 1997 (WRK)
 DV0148'RECOVERY NOTE ADDITIONS BY A TEAM PROFESSIONAL ASSOCIATES 1996
 (BSF),
 DV0148'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE
17,
 DV0148'TRAVEL EAST OF INTERCHANGE 0.2 MI (0.32 KM) TO INTERSECTION OF
 DV0148'FRONTAGE ROAD. TURN SOUTH AND TRAVEL 1.5  MI (2.41 KM) . TO AN
 OPEN
 DV0148'GATE OF BORROW PIT. TRAVEL EAST ALONG DIRT ROAD TO TOP OF HILL
 TO DUG
 DV0148'OUT AREA. STATION IS AT NE CORNER OF EXCAVATED AREA. STATION I
S
 DV0148'APPROX. 50 FT (15.24 M) NORTH OF CENTERLINE DIRT ROAD. MONUMEN
TS
 DV0148'RECOVERED AS DESCRIBED IN NOTE OF 1959.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4814 ***********************************************************
*********
 AE4814  DESIGNATION  - NR02
 AE4814  PID          -  AE4814
 AE4814  STATE/COUNTY-  AZ/MARICOPA
```

AE4814 USGS QUAD - DAISY MOUNTAIN (1972)
AE4814
AE4814 *CURRENT SURVEY CONTROL
AE4814 ---
AE4814* NAD 83(1992)- 33 54 24.69484(N) 112 05 00.87680(W) AD
JUSTED
AE4814* NAVD 88 - 643.5 (meters) 2111. (feet) VE
RTCON
AE4814 ---
AE4814 LAPLACE CORR- 4.25 (seconds) DE
FLEC96
AE4814 GEOID HEIGHT- -28.59 (meters) GE
OID96
AE4814
AE4814 HORZ ORDER - FIRST
AE4814
AE4814.The horizontal coordinates were established by GPS observation
s
AE4814.and adjusted by the National Geodetic Survey in November 1997.
AE4814
AE4814.The NAVD 88 height was computed by applying the VERTCON shift
value to
AE4814.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
AE4814
AE4814.The Laplace correction was computed from DEFLEC96 derived defl
ections.
AE4814
AE4814.The geoid height was determined by GEOID96.
AE4814
AE4814; North East Units Scale
Converg.
AE4814;SPC AZ C - 322,336.156 197,924.761 MT 0.99990294 -0
05 35.2
AE4814;UTM 12 - 3,752,357.312 399,822.667 MT 0.99972371 -0
36 16.3
AE4814
AE4814 SUPERSEDED SURVEY CONTROL
AE4814
AE4814 NGVD 29 - 642.9 (meters) 2109. (feet) GP
S OBS
AE4814
AE4814.Superseded values are not recommended for survey control.
AE4814.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
AE4814.See file format.dat to determine how the superseded data were

derived.
AE4814
AE4814_MARKER: DD = SURVEY DISK
AE4814_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AE4814_STAMPING: NR-03
AE4814_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AE4814_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4814+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4814
AE4814 HISTORY - Date Condition Recov. By
AE4814 HISTORY - 1996 MONUMENTED ATEAM
AE4814
AE4814 STATION DESCRIPTION
AE4814
AE4814'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4814'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE 17,
AE4814'TRAVEL EAST ON NEW RIVER ROAD 0.25 MI (0.40 KM) TO T INTERSECTION WITH
AE4814'FRONTAGE ROAD. TURN LEFT (NORTH) AND TRAVEL 0.3 MI (0.48 KM) TO
AE4814'INTERSECTION WITH NEW RIVER ROAD(EAST). TURN RIGHT (EAST) AND TRAVEL
AE4814'3.4 MI (5.47 KM) TO THE BRIDGE OVER SKUNK CREEK AND THE STATION ON THE
AE4814'SOUTHEAST ABUTMENT WINGWALL. STATION MARK IS A 3 IN. BRASS CAP EPOXIED
AE4814'IN A DRILL HOLE ON TOP OF A WINGWALL 3 FT (0.91 M) WIDE X 11 FT (3.35
AE4814'M) LONG. BRASS CAP IS INSCRIBED MARICOPA COUNTY HWY. DEPT. AND STAMPED
AE4814'NR-03 1996. STATION IS APPROX. 7 FT (2.13 M) FROM THE BRIDGE ABUTMENT,
AE4814'4.5 FT (1.37 M) FROM END OF WINGWALL AND 4 FT (1.22 M) NORTHWEST OF A
AE4814'WITNESS POST.
1 National Geodetic Survey, Retrieval Date = APRIL 17, 1998
AE4799 **********
AE4799 DESIGNATION - NR04
AE4799 PID - AE4799
AE4799 STATE/COUNTY- AZ/MARICOPA
AE4799 USGS QUAD - NEW RIVER (1986)
AE4799
AE4799 *CURRENT SURVEY CONTROL
AE4799 ---

AE4799* NAD 83(1992)- 33 54 08.20219(N) 112 09 39.86971(W) AD

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JUSTED
 AE4799* NAVD 88      -        618.7     (meters)     2030.      (feet)  VE
RTCON
 AE4799
_______
 AE4799  LAPLACE CORR-             4.05   (seconds)                      DE
FLEC96
 AE4799  GEOID HEIGHT-           -28.84   (meters)                       GE
OID96
 AE4799
 AE4799  HORZ ORDER  -  FIRST
 AE4799
 AE4799.The horizontal coordinates were established by GPS observation
s
 AE4799.and adjusted by the National Geodetic Survey in November 1997.
 AE4799
 AE4799.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4799.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4799
 AE4799.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4799
 AE4799.The geoid height was determined by GEOID96.
 AE4799
 AE4799;                        North          East      Units   Scale
Converg.
 AE4799;SPC AZ C      -    321,842.396    190,756.807    MT  0.99990630 -0
 08 10.8
 AE4799;UTM  12       - 3,751,927.620    392,651.824    MT  0.99974206 -0
 38 51.7
 AE4799
 AE4799                              SUPERSEDED SURVEY CONTROL
 AE4799
 AE4799  NGVD 29      -        618.1     (meters)     2028.      (feet)  GP
S OBS
 AE4799
 AE4799.Superseded values are not recommended for survey control.
 AE4799.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 AE4799.See file format.dat to determine how the superseded data were
derived.
 AE4799
 AE4799_MARKER: I = METAL ROD
 AE4799_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AE4799_STAMPING: NR-04
 AE4799_PROJECTION: PROJECTING 10 CENTIMETERS
```

```
 AE4799_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AE4799+STABILITY: POSITION/ELEVATION WELL
 AE4799_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE4799+SATELLITE: SATELLITE OBSERVATIONS - 1996
 AE4799_ROD/PIPE-DEPTH: 2.3  meters
 AE4799_SLEEVE-DEPTH  : .75 meters
 AE4799
 AE4799  HISTORY      - Date      Condition        Recov. By
 AE4799  HISTORY      - 1996      MONUMENTED       ATEAM
 AE4799
 AE4799                            STATION DESCRIPTION
 AE4799
 AE4799'DESCRIBED BY A TEAM PA INC 1996 (JJR)
 AE4799'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE
17,
 AE4799'TRAVEL WEST ON NEW RIVER ROAD 1.3 MI (2.09 KM) TO STATION ON T
HE LEFT
 AE4799'(SOUTHEAST). STATION MARK IS A 9/16 STAINLESS STEEL ROD IN A H
ANDWELL
 AE4799'INCASED IN CONCRETE STAMPED NR-04 ON HANDWELL RIM. STATION MAR
K IS A
 AE4799'9/16 STAINLESS STEEL ROD IN A HANDWELL INCASED IN CONCRETE STA
MPED
 AE4799'NR-04 ON HANDWELL RIM. STATION IS 57 FT (17.37 M) SOUTHWEST OF
 AE4799'CENTERLINE OF A PAVED ENTRANCE TO DSET LABRATORIES BUILDING, 5
0 FT
 AE4799'(15.24 M) SOUTHEAST OF CENTERLINE OF NEW RIVER ROAD, 2.7 FT (0
.82 M)
 AE4799'WEST OF A WITNESS POST. STATION IS LOCATED IN THE SOUTHEAST QU
ARTER OF
 AE4799'SECTION 33, T7N, R2E, G.S.R.M.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4808 ***********************************************************
*********
 AE4808  DESIGNATION  -  NR04
 AE4808  PID          -  AE4808
 AE4808  STATE/COUNTY-  AZ/MARICOPA
 AE4808  USGS QUAD    -  DAISY MOUNTAIN (1972)
 AE4808
 AE4808                          *CURRENT SURVEY CONTROL
 AE4808  ______________________________________________________________
_____
 AE4808* NAD 83(1992)-  33 53 09.94255(N)    112 03 37.11192(W)     AD
JUSTED
 AE4808* NAVD 88      -       649.0     (meters)     2129.      (feet)  VE
RTCON
 AE4808  ______________________________________________________________
_____
```

dsdata

AE4808 LAPLACE CORR- 3.92 (seconds) DE
FLEC96
AE4808 GEOID HEIGHT- -28.63 (meters) GE
OID96
AE4808
AE4808 HORZ ORDER - FIRST
AE4808
AE4808.The horizontal coordinates were established by GPS observation
s
AE4808.and adjusted by the National Geodetic Survey in November 1997.
AE4808
AE4808.The NAVD 88 height was computed by applying the VERTCON shift
value to
AE4808.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
AE4808
AE4808.The Laplace correction was computed from DEFLEC96 derived defl
ections.
AE4808
AE4808.The geoid height was determined by GEOID96.
AE4808
AE4808; North East Units Scale
Converg.
AE4808;SPC AZ C - 320,029.919 200,073.283 MT 0.99990218 -0
04 48.3
AE4808;UTM 12 - 3,750,032.417 401,950.139 MT 0.99971851 -0
35 28.4
AE4808
AE4808 SUPERSEDED SURVEY CONTROL
AE4808
AE4808 NGVD 29 - 648.3 (meters) 2127. (feet) GP
S OBS
AE4808
AE4808.Superseded values are not recommended for survey control.
AE4808.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
AE4808.See file format.dat to determine how the superseded data were
derived.
AE4808
AE4808_MARKER: I = METAL ROD
AE4808_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AE4808_STAMPING: NR-05
AE4808_PROJECTION: PROJECTING 10 CENTIMETERS
AE4808_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AE4808+STABILITY: POSITION/ELEVATION WELL
AE4808_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4808+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4808_ROD/PIPE-DEPTH: 1.8 meters

AE4808_SLEEVE-DEPTH : .5 meters
AE4808
AE4808 HISTORY - Date Condition Recov. By
AE4808 HISTORY - 1996 MONUMENTED ATEAM
AE4808
AE4808 STATION DESCRIPTION
AE4808
AE4808'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4808'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE 17,
AE4808'TRAVEL EAST ON NEW RIVER ROAD 0.25 MI (0.40 KM) TO T INTERSECTION WITH
AE4808'FRONTAGE ROAD. TURN LEFT (NORTH) AND TRAVEL 0.3 MI (0.48 KM) TO
AE4808'INTERSECTION WITH NEW RIVER ROAD(EAST). TURN RIGHT (EAST) AND TRAVEL
AE4808'5.1 MI (8.21 KM) TO CIRCLE MOUNTAIN ROAD. TURN LEFT AND TRAVEL EAST
AE4808'FOR 0.8 MI (1.29 KM) TO THE STATION ON THE RIGHT (SOUTH). STATION MARK
AE4808'IS A 9/16 STAINLESS STEEL ROD IN A HANDWELL INCASED IN CONCRETE
AE4808'STAMPED NR-05 ON HANDWELL RIM. STATION IS 22 FT (6.71 M) FROM THE
AE4808'SOUTH EDGE OF PAVEMENT OF CIRCLE MOUNTAIN ROAD, 13 FT (3.96 M) EAST OF
AE4808'A SECOND POWER POLE EAST OF 10TH STREET ON SOUTH SIDE OF CIRCLE
AE4808'MOUNTAIN RD. AND 2.5 FT (0.76 M) NORTHWEST OF A WITNESS POST.
1 National Geodetic Survey, Retrieval Date = APRIL 17, 1998
AE4810 **********
AE4810 [redacted]
AE4810 PID - AE4810
AE4810 STATE/COUNTY- AZ/MARICOPA
AE4810 USGS QUAD - NEW RIVER SE (1982)
AE4810
AE4810 *CURRENT SURVEY CONTROL
AE4810 ______

AE4810* NAD 83(1992)- 33 49 14.71073(N) 112 00 46.85477(W) ADJUSTED
AE4810* NAVD 88 - 596.6 (meters) 1957. (feet) VERTCON
AE4810 ______

AE4810 LAPLACE CORR- 3.03 (seconds) DEFLEC96

```
 AE4810  GEOID HEIGHT-          -28.83  (meters)                        GE
OID96
 AE4810
 AE4810  HORZ ORDER  -  FIRST
 AE4810
 AE4810.The horizontal coordinates were established by GPS observation
s
 AE4810.and adjusted by the National Geodetic Survey in November 1997.
 AE4810
 AE4810.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4810.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4810
 AE4810.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4810
 AE4810.The geoid height was determined by GEOID96.
 AE4810
 AE4810;                      North          East      Units   Scale
Converg.
 AE4810;SPC AZ C      -   312,777.795   204,441.098    MT  0.99990098 -0
 03 13.1
 AE4810;UTM  12       - 3,742,743.022   406,252.331    MT  0.99970834 -0
 33 50.0
 AE4810
 AE4810                            SUPERSEDED SURVEY CONTROL
 AE4810
 AE4810  NGVD 29      -       596.0     (meters)     1955.      (feet)  GP
S OBS
 AE4810
 AE4810.Superseded values are not recommended for survey control.
 AE4810.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 AE4810.See file format.dat to determine how the superseded data were
derived.
 AE4810
 AE4810_MARKER: I = METAL ROD
 AE4810_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AE4810_STAMPING: NR-06
 AE4810_PROJECTION: PROJECTING 10 CENTIMETERS
 AE4810_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AE4810+STABILITY: POSITION/ELEVATION WELL
 AE4810_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE4810+SATELLITE: SATELLITE OBSERVATIONS - 1996
 AE4810_ROD/PIPE-DEPTH: 2.3  meters
 AE4810_SLEEVE-DEPTH  : .7 meters
 AE4810
```

```
                                    dsdata
 AE4810  HISTORY      - Date        Condition          Recov. By
 AE4810  HISTORY      - 1996        MONUMENTED         ATEAM
 AE4810
 AE4810                              STATION DESCRIPTION
 AE4810
 AE4810'DESCRIBED BY A TEAM PA INC 1996 (JJR)
 AE4810'TO REACH STATION FROM EXIT 224 (CAREFREE HIGHWAY) OF INTERSTAT
E 17,
 AE4810'TRAVEL EAST ON CAREFREE HIGHWAY FOR 7.1 MI (11.43 KM) TO INTER
SECTION
 AE4810'WITH 32ND STREET. TURN LEFT (NORTH) AND TRAVEL 1.5 MI (2.41 KM
) TO THE
 AE4810'CAVE CREEK PARK ENTRANCE AND THE STATION ON THE RIGHT (EAST).
STATION
 AE4810'MARK IS A 9/16 STAINLESS STEEL ROD IN A HANDWELL INCASED IN CO
NCRETE
 AE4810'STAMPED NR-06 ON HANDWELL RIM. STATION IS APPROX. 50 FT (15.24
 M)
 AE4810'SOUTH OF THE PARK ENTRANCE, 28 FT (8.53 M) FROM THE EAST EDGE
OF
 AE4810'PAVEMENT OF 32ND STREET, APPROX. 50 FT (15.24 M) SSE OF THE EA
ST 1/4
 AE4810'CORNER OF SECTION 35, T6N, R3E, GSRM AND 2.5 FT (0.76 M) SOUTH
WEST OF
 AE4810'A WITNESS POST.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4813 ************************************************************
*********
 AE4813  DESIGNATION  - NR0
 AE4813  PID          -  AE4813
 AE4813  STATE/COUNTY-  AZ/MARICOPA
 AE4813  USGS QUAD    -  NEW RIVER SE (1982)
 AE4813
 AE4813                          *CURRENT SURVEY CONTROL
 AE4813  ______________________________________________________________
_____
 AE4813* NAD 83(1992)-  33 48 02.32700(N)     112 05 33.12975(W)      AD
JUSTED
 AE4813* NAVD 88      -       580.3    (meters)     1904.     (feet)   VE
RTCON
 AE4813  ______________________________________________________________
_____
 AE4813  LAPLACE CORR-           3.63  (seconds)                       DE
FLEC96
 AE4813  GEOID HEIGHT-         -29.07  (meters)                        GE
OID96
 AE4813
 AE4813  HORZ ORDER   -  FIRST
```

AE4813
AE4813.The horizontal coordinates were established by GPS observations
AE4813.and adjusted by the National Geodetic Survey in November 1997.
AE4813
AE4813.The NAVD 88 height was computed by applying the VERTCON shift value to
AE4813.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
AE4813
AE4813.The Laplace correction was computed from DEFLEC96 derived deflections.
AE4813
AE4813.The geoid height was determined by GEOID96.
AE4813

		North	East	Units	Scale	Converg.
AE4813;SPC AZ C	-	310,557.545	197,076.107	MT	0.99990327	-0 05 52.2
AE4813;UTM 12	-	3,740,588.830	398,869.231	MT	0.99972608	-0 36 28.2

AE4813
AE4813 SUPERSEDED SURVEY CONTROL
AE4813

AE4813 NGVD 29	-	579.7	(meters)	1902.	(feet)	GPS OBS

AE4813
AE4813.Superseded values are not recommended for survey control.
AE4813.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AE4813.See file format.dat to determine how the superseded data were derived.
AE4813
AE4813_MARKER: I = METAL ROD
AE4813_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AE4813_STAMPING: NR-07
AE4813_PROJECTION: PROJECTING 10 CENTIMETERS
AE4813_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AE4813+STABILITY: POSITION/ELEVATION WELL
AE4813_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4813+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4813_ROD/PIPE-DEPTH: 1.1 meters
AE4813_SLEEVE-DEPTH : .4 meters
AE4813

AE4813 HISTORY	- Date	Condition	Recov. By
AE4813 HISTORY	- 1996	MONUMENTED	ATEAM

AE4813
AE4813 STATION DESCRIPTION

```
 AE4813
 AE4813'DESCRIBED BY A TEAM PA INC 1996 (JJR)
 AE4813'TO REACH STATION FROM EXIT 224 (CAREFREE HIGHWAY) OF INTERSTAT
E 17,
 AE4813'TRAVEL EAST ON CAREFREE HIGHWAY FOR 2.5 MI (4.02 KM) TO THE ST
ATION AT
 AE4813'TOP OF RIDGE OF A HIGH CUT SLOPE ON RIGHT (SOUTH). STATION MAR
K IS A
 AE4813'9/16 STAINLESS STEEL ROD IN A HANDWELL INCASED IN CONCRETE STA
MPED
 AE4813'NR-07 ON HANDWELL RIM. STATION IS 55 FT (16.76 M) SOUTH OF THE
 HIGH
 AE4813'POINT OF CUT SLOPE, 7.5 FT (2.29 M) NORTH OF THE BARBED WIRE R
IGHT OF
 AE4813'WAY FENCE AND 4 FT (1.22 M) NORTH OF A WITNESS POST.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4802 ***********************************************************
*********
 AE4802  DESIGNATION  -  NR03
 AE4802  PID          -  AE4802
 AE4802  STATE/COUNTY-  AZ/MARICOPA
 AE4802  USGS QUAD    -  BISCUIT FLAT (1982)
 AE4802
 AE4802                          *CURRENT SURVEY CONTROL
 AE4802  ______________________________________________________________
_____
 AE4802* NAD 83(1992)-  33 47 52.97396(N)     112 11 03.08553(W)      AD
JUSTED
 AE4802* NAVD 88      -       484.7    (meters)     1590.      (feet)   VE
RTCON
 AE4802  ______________________________________________________________
_____
 AE4802  LAPLACE CORR-           2.89  (seconds)                        DE
FLEC96
 AE4802  GEOID HEIGHT-         -29.28  (meters)                         GE
OID96
 AE4802
 AE4802  HORZ ORDER   -  FIRST
 AE4802
 AE4802.The horizontal coordinates were established by GPS observation
s
 AE4802.and adjusted by the National Geodetic Survey in November 1997.
 AE4802
 AE4802.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4802.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4802
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```
 AE4802.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4802
 AE4802.The geoid height was determined by GEOID96.
 AE4802
 AE4802;                      North         East      Units   Scale
Converg.
 AE4802;SPC AZ C      -   310,287.665   188,588.983   MT  0.99990756 -0
 08 55.7
 AE4802;UTM  12       - 3,740,394.537   390,381.470   MT  0.99974813 -0
 39 31.7
 AE4802
 AE4802:                  Primary Azimuth Mark                      Grid
Az
 AE4802:SPC AZ C      -  NR18                                       010 4
5 53.3
 AE4802:UTM  12       -  NR18                                       011 1
6 29.3
 AE4802
 AE4802|-------------------------------------------------------------
-------|
 AE4802| PID    Reference Object                        Distance      Geo
d. Az  |
 AE4802|                                                              ddd
mmss.s |
 AE4802| AE4805 NR18                                  APPROX. 0.5 KM 010
3657.6 |
 AE4802|-------------------------------------------------------------
-------|
 AE4802
 AE4802                          SUPERSEDED SURVEY CONTROL
 AE4802
 AE4802  NGVD 29      -        484.1     (meters)     1588.      (feet)  GP
S OBS
 AE4802
 AE4802.Superseded values are not recommended for survey control.
 AE4802.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 AE4802.See file format.dat to determine how the superseded data were
derived.
 AE4802
 AE4802_MARKER: I = METAL ROD
 AE4802_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AE4802_STAMPING: NR-08
 AE4802_PROJECTION: PROJECTING 10 CENTIMETERS
 AE4802_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AE4802+STABILITY: POSITION/ELEVATION WELL
 AE4802_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
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AE4802+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4802_ROD/PIPE-DEPTH: 1.7 meters
AE4802_SLEEVE-DEPTH : .7 meters
AE4802
AE4802 HISTORY - Date Condition Recov. By
AE4802 HISTORY - 1996 MONUMENTED ATEAM
AE4802
AE4802 STATION DESCRIPTION
AE4802
AE4802'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4802'TO REACH STATION FROM EXIT 224 (CAREFREE HIGHWAY) OF INTERSTATE 17,
AE4802'TRAVEL WEST ON CAREFREE HIGHWAY FOR 2.8 MI (4.51 KM) TO THE STATION ON
AE4802'RIGHT (NORTH). STATION MARK IS A 9/16 STAINLESS STEEL ROD IN A
AE4802'HANDWELL INCASED IN CONCRETE STAMPED NR-08 ON HANDWELL RIM. STATION IS
AE4802'45 FT (13.72 M) NORTH OF THE NORTH EDGE OF PAVEMENT OF CAREFREE HWY,
AE4802'50 FT (15.24 M) . NORTHEAST OF MILEPOST 28, 3.2 FT (0.98 M) SOUTH OF
AE4802'THE BARBED WIRE RIGHT OF WAY FENCE AND 2 FT (0.61 M) SOUTH OF A
AE4802'WITNESS POST.

AE4809 **********

AE4809 DESIGNATION - NR 8

AE4809 PID - AE4809
AE4809 STATE/COUNTY- AZ/MARICOPA
AE4809 USGS QUAD - DAISY MOUNTAIN (1972)
AE4809
AE4809 *CURRENT SURVEY CONTROL
AE4809 ______

AE4809* NAD 83(1992)- 33 54 42.84699(N) 112 05 12.33296(W) ADJUSTED
AE4809* NAVD 88 - 650.7 (meters) 2135. (feet) VERTCON
AE4809 ______

AE4809 LAPLACE CORR- 4.36 (seconds) DEFLEC96
AE4809 GEOID HEIGHT- -28.58 (meters) GEOID96
AE4809
AE4809 HORZ ORDER - FIRST
AE4809

```
 AE4809.The horizontal coordinates were established by GPS observation
s
 AE4809.and adjusted by the National Geodetic Survey in November 1997.
 AE4809
 AE4809.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4809.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4809
 AE4809.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4809
 AE4809.The geoid height was determined by GEOID96.
 AE4809
 AE4809;                      North          East      Units   Scale
Converg.
 AE4809;SPC AZ C      -   322,895.876   197,631.402    MT  0.99990305 -0
 05 41.6
 AE4809;UTM  12       - 3,752,919.527   399,534.368    MT  0.99972442 -0
 36 22.9
 AE4809
 AE4809                              SUPERSEDED SURVEY CONTROL
 AE4809
 AE4809  NGVD 29      -       650.1     (meters)     2133.      (feet)  GP
S OBS
 AE4809
 AE4809.Superseded values are not recommended for survey control.
 AE4809.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 AE4809.See file format.dat to determine how the superseded data were
derived.
 AE4809
 AE4809_MARKER: I = METAL ROD
 AE4809_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AE4809_STAMPING: NR-13
 AE4809_PROJECTION: PROJECTING 10 CENTIMETERS
 AE4809_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AE4809+STABILITY: POSITION/ELEVATION WELL
 AE4809_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE4809+SATELLITE: SATELLITE OBSERVATIONS - 1996
 AE4809_ROD/PIPE-DEPTH: 1.5  meters
 AE4809_SLEEVE-DEPTH  : .5 meters
 AE4809
 AE4809  HISTORY      - Date      Condition         Recov. By
 AE4809  HISTORY      - 1996      MONUMENTED        ATEAM
 AE4809
 AE4809                               STATION DESCRIPTION
 AE4809
```

AE4809'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4809'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE 17,
AE4809'TRAVEL EAST ON NEW RIVER ROAD 0.25 MI (0.40 KM) TO T INTERSECTION WITH
AE4809'FRONTAGE ROAD. TURN LEFT (NORTH) AND TRAVEL 0.3 MI (0.48 KM) TO
AE4809'INTERSECTION WITH NEW RIVER ROAD(EAST). TURN RIGHT (EAST) AND TRAVEL
AE4809'3.1 MI (4.99 KM) TO THE STATION ON THE RIGHT (EAST). STATION IS 0.25
AE4809'MI (0.40 KM) NORTH FROM BRIDGE OVER SKUNK CREEK. STATION MARK IS A
AE4809'9/16 STAINLESS STEEL ROD IN A HANDWELL INCASED IN CONCRETE STAMPED
AE4809'NR-13 ON RIM OF HANDWELL. STAION IS APPROX. 35 FT (10.67 M) FROM
AE4809'CENTERLINE OF NEW RIVER ROAD, 140 FT (42.67 M) NORTHWEST OF GIBONS
AE4809'ROAD AND 5.5 FT (1.68 M) NORTHEAST OF A WITNESS POST, ACROSS FROM
AE4809'RESIDENT ADDRESS 47015 NEW RIVER ROAD.
1 National Geodetic Survey, Retrieval Date = APRIL 17, 1998
AE4806 **********
AE4806 DESIGNATION - NR13
AE4806 PID - AE4806
AE4806 STATE/COUNTY- AZ/MARICOPA
AE4806 USGS QUAD - DAISY MOUNTAIN (1972)
AE4806
AE4806 *CURRENT SURVEY CONTROL
AE4806 ______
AE4806* NAD 83(1992)- 33 53 10.52206(N) 112 02 03.67718(W) ADJUSTED
AE4806* NAVD 88 - 708.3 (meters) 2324. (feet) VERTCON
AE4806 ______
AE4806 LAPLACE CORR- 4.34 (seconds) DEFLEC96
AE4806 GEOID HEIGHT- -28.57 (meters) GEOID96
AE4806
AE4806 HORZ ORDER - FIRST
AE4806
AE4806.The horizontal coordinates were established by GPS observations

AE4806.and adjusted by the National Geodetic Survey in November 1997.
AE4806
AE4806.The NAVD 88 height was computed by applying the VERTCON shift value to
AE4806.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
AE4806
AE4806.The Laplace correction was computed from DEFLEC96 derived deflections.
AE4806
AE4806.The geoid height was determined by GEOID96.
AE4806
AE4806;   North   East   Units   Scale   Converg.
AE4806;SPC AZ C   -   320,044.720   202,474.025   MT 0.99990146 -0 03 56.2
AE4806;UTM 12   - 3,750,025.802   404,350.470   MT 0.99971278 -0 34 36.3
AE4806
AE4806   SUPERSEDED SURVEY CONTROL
AE4806
AE4806 NGVD 29   -   707.6   (meters)   2322.   (feet) GPS OBS
AE4806
AE4806.Superseded values are not recommended for survey control.
AE4806.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AE4806.See file format.dat to determine how the superseded data were derived.
AE4806
AE4806_MARKER: I = METAL ROD
AE4806_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AE4806_STAMPING: NR-15
AE4806_PROJECTION: PROJECTING 10 CENTIMETERS
AE4806_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AE4806+STABILITY: POSITION/ELEVATION WELL
AE4806_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4806+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4806_ROD/PIPE-DEPTH: .9   meters
AE4806_SLEEVE-DEPTH : .3 meters
AE4806
AE4806 HISTORY   - Date   Condition   Recov. By
AE4806 HISTORY   - 1996   MONUMENTED   ATEAM
AE4806
AE4806   STATION DESCRIPTION
AE4806
AE4806'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4806'TO REACH STATION FROM EXIT 232 (NEW RIVER ROAD) OF INTERSTATE

17,
AE4806'TRAVEL EAST ON NEW RIVER ROAD 0.25 MI (0.40 KM) TO T INTERSECT
ION WITH
AE4806'FRONTAGE ROAD. TURN LEFT (NORTH) AND TRAVEL 0.3 MI (0.48 KM) T
O
AE4806'INTERSECTION WITH NEW RIVER ROAD(EAST). TURN RIGHT (EAST) AND
TRAVEL
AE4806'5.1 MI (8.21 KM) TO CIRCLE MOUNTAIN ROAD. TURN LEFT AND TRAVEL
EAST
AE4806'FOR 2.3 MI (3.70 KM) TO THE END OF CIRCLE MOUNTAIN ROAD AT 22N
D STREET
AE4806'AND THE STATION (NORTHEAST). STATION MARK IS A 9/16 STAINLESS
STEEL
AE4806'ROD IN A HANDWELL INCASED IN CONCRETE STAMPED NR-15 ON HANDWEL
L RIM.
AE4806'STATION IS APPROX. 70 FT (21.34 M) FROM THE EAST EDGE OF PAVEM
ENT OF
AE4806'22ND STREET ALONG THE NORTH R/W LINE ALIGNMENT OF CIRCLE MOUNT
AIN ROAD
AE4806'AND 3.5 FT (1.07 M) WEST OF A WITNESS POST.
1 National Geodetic Survey, Retrieval Date = APRIL 17, 1998
AE4807 **********
****
[redacted]
AE4807 PID - AE4807
AE4807 STATE/COUNTY- AZ/MARICOPA
AE4807 USGS QUAD - NEW RIVER SE (1982)
AE4807
AE4807 *CURRENT SURVEY CONTROL
AE4807 ---
AE4807* NAD 83(1992)- 33 49 15.51025(N) 112 01 41.95943(W) AD
JUSTED
AE4807* NAVD 88 - 578.6 (meters) 1898. (feet) VE
RTCON
AE4807 ---
AE4807 LAPLACE CORR- 3.04 (seconds) DE
FLEC96
AE4807 GEOID HEIGHT- -28.86 (meters) GE
OID96
AE4807
AE4807 HORZ ORDER - FIRST
AE4807
AE4807.The horizontal coordinates were established by GPS observation
s
AE4807.and adjusted by the National Geodetic Survey in November 1997.
AE4807

```
 AE4807.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4807.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4807
 AE4807.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4807
 AE4807.The geoid height was determined by GEOID96.
 AE4807
 AE4807;                        North          East      Units   Scale
Converg.
 AE4807;SPC AZ C      -    312,803.858   203,024.182    MT  0.99990132 -0
 03 43.7
 AE4807;UTM  12       - 3,742,781.695   404,835.974    MT  0.99971164 -0
 34 20.7
 AE4807
 AE4807                              SUPERSEDED SURVEY CONTROL
 AE4807
 AE4807  NGVD 29      -        578.0     (meters)     1896.      (feet)  GP
S OBS
 AE4807
 AE4807.Superseded values are not recommended for survey control.
 AE4807.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 AE4807.See file format.dat to determine how the superseded data were
derived.
 AE4807
 AE4807_MARKER: I = METAL ROD
 AE4807_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AE4807_STAMPING: NR-16
 AE4807_PROJECTION: PROJECTING 10 CENTIMETERS
 AE4807_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AE4807+STABILITY: POSITION/ELEVATION WELL
 AE4807_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE4807+SATELLITE: SATELLITE OBSERVATIONS - 1996
 AE4807_ROD/PIPE-DEPTH: 2.4  meters
 AE4807_SLEEVE-DEPTH  : .7 meters
 AE4807
 AE4807  HISTORY      - Date     Condition        Recov. By
 AE4807  HISTORY      - 1996     MONUMENTED       ATEAM
 AE4807
 AE4807                              STATION DESCRIPTION
 AE4807
 AE4807'DESCRIBED BY A TEAM PA INC 1996 (JJR)
 AE4807'TO REACH STATION FROM EXIT 224 (CAREFREE HIGHWAY) OF INTERSTAT
E 17,
 AE4807'TRAVEL EAST ON CAREFREE HIGHWAY FOR 6.1 MI (9.82 KM) TO INTERS
```

```
ECTION
 AE4807'WITH 24ND STREET. TURN LEFT (NORTH) AND TRAVEL 1.5 MI (2.41 KM
) TO THE
 AE4807'MADDOCK ROAD ON EAST. TURN RIGHT (EAST) AND TRAVEL .2 MI (0.32
 KM) AND
 AE4807'THE STATION ON THE LEFT (NORTH). STATION MARK IS A 9/16 STAINL
ESS
 AE4807'STEEL ROD IN A HANDWELL INCASED IN CONCRETE STAMPED NR-16 ON H
ANDWELL
 AE4807'RIM. STATION IS 11 FT (3.35 M) WEST OF THE SOUTHWEST CORNER OF
 LOT
 AE4807'HAVING HOUSE ADDRESS 2510, APPROX. 23 FT (7.01 M) FROM THE NOR
TH EDGE
 AE4807'OF PAVEMENT OF MADDOCK ROAD AND 3.5 FT (1.07 M) SOUTH OF A WIT
NESS
 AE4807'POST.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4812 ************************************************************
*********
 AE4812  DESIGNATION  -  NR1763
 AE4812  PID          -  AE4812
 AE4812  STATE/COUNTY-  AZ/MARICOPA
 AE4812  USGS QUAD    -  NEW RIVER SE (1982)
 AE4812
 AE4812                          *CURRENT SURVEY CONTROL
 AE4812 ______________________________________________________________
_____
 AE4812* NAD 83(1992)-  33 47 56.17365(N)     112 05 57.20854(W)      AD
JUSTED
 AE4812* NAVD 88      -       561.8    (meters)     1843.      (feet)   VE
RTCON
 AE4812 ______________________________________________________________
_____
 AE4812  LAPLACE CORR-           3.71  (seconds)                       DE
FLEC96
 AE4812  GEOID HEIGHT-         -29.09  (meters)                        GE
OID96
 AE4812
 AE4812  HORZ ORDER   -  FIRST
 AE4812
 AE4812.The horizontal coordinates were established by GPS observation
s
 AE4812.and adjusted by the National Geodetic Survey in November 1997.
 AE4812
 AE4812.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4812.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
```

AE4812
AE4812.The Laplace correction was computed from DEFLEC96 derived defl
ections.
AE4812
AE4812.The geoid height was determined by GEOID96.
AE4812
AE4812; North East Units Scale
Converg.
AE4812;SPC AZ C - 310,369.051 196,456.472 MT 0.99990352 -0
06 05.6
AE4812;UTM 12 - 3,740,405.892 398,248.052 MT 0.99972763 -0
36 41.5
AE4812
AE4812 SUPERSEDED SURVEY CONTROL
AE4812
AE4812 NGVD 29 - 561.2 (meters) 1841. (feet) GP
S OBS
AE4812
AE4812.Superseded values are not recommended for survey control.
AE4812.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
AE4812.See file format.dat to determine how the superseded data were
derived.
AE4812
AE4812_MARKER: DD = SURVEY DISK
AE4812_SETTING: 4 = OBJECT SURROUNDED BY MASS OF CONCRETE
AE4812_STAMPING: NR-17
AE4812_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AE4812_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4812+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4812
AE4812 HISTORY - Date Condition Recov. By
AE4812 HISTORY - 1996 MONUMENTED ATEAM
AE4812
AE4812 STATION DESCRIPTION
AE4812
AE4812'DESCRIBED BY A TEAM PA INC 1996 (JJR)
AE4812'TO REACH STATION FROM EXIT 224 (CAREFREE HIGHWAY) OF INTERSTAT
E 17,
AE4812'TRAVEL EAST ON CAREFREE HIGHWAY 2.1 MI (3.38 KM) TO A ROADWAY
CUT
AE4812'SLOPE ALONG THE NORTH SIDE OF ROADWAY AND THE STATION. THE STA
TION IS
AE4812'ON THE NORTH SIDE OF HIGHWAY AT TOP OF RIDGELINE BEHIND (NORTH
OF)
AE4812'BOLDERS AT TOP OF ROAD CUT SLOPE. STATION MARK IS A 3 IN. BRAS
S CAP IN
AE4812'CONCRETE ON TOP OF DECOMPOSED GRANITE RIDGE. BRASS CAP IS INSC

```
RIBED
 AE4812'MARICOPA COUNTY DOT AND STAMPED NR-17. STATION IS APPROX. 20 F
T (6.10
 AE4812'M) NORTH OF BOLDERS AT TOP OF CUT SLOPE, 15 FT (4.57 M) SSW OF
 A
 AE4812'SAGUARO CACTUS, 13 FT (3.96 M) SW OF A SAGUARO CACTUS, 4.5 FT
(1.37 M)
 AE4812'SOUTHEAST OF A WITNESS POST.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 AE4805 ************************************************************
*********
 AE4805  DESIGNATION  -  NR18
 AE4805  PID          -  AE4805
 AE4805  STATE/COUNTY-  AZ/MARICOPA
 AE4805  USGS QUAD    -  BISCUIT FLAT (1982)
 AE4805
 AE4805                          *CURRENT SURVEY CONTROL
 AE4805  ______________________________________________________________
_______
 AE4805* NAD 83(1992)-  33 48 09.70643(N)     112 10 59.32877(W)      AD
JUSTED
 AE4805* NAVD 88      -       489.4     (meters)     1606.      (feet)  VE
RTCON
 AE4805  ______________________________________________________________
_______
 AE4805  LAPLACE CORR-            2.93   (seconds)                     DE
FLEC96
 AE4805  GEOID HEIGHT-          -29.27   (meters)                      GE
OID96
 AE4805
 AE4805  HORZ ORDER   -  FIRST
 AE4805
 AE4805.The horizontal coordinates were established by GPS observation
s
 AE4805.and adjusted by the National Geodetic Survey in November 1997.
 AE4805
 AE4805.The NAVD 88 height was computed by applying the VERTCON shift
value to
 AE4805.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 AE4805
 AE4805.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 AE4805
 AE4805.The geoid height was determined by GEOID96.
 AE4805
 AE4805;                    North         East      Units   Scale
Converg.
```

dsdata

AE4805;SPC AZ C - 310,802.906 188,686.943 MT 0.99990750 -0
08 53.7
AE4805;UTM 12 - 3,740,908.803 390,483.995 MT 0.99974786 -0
39 29.8
AE4805
AE4805: Primary Azimuth Mark Grid
Az
AE4805:SPC AZ C - NR08 190 4
5 53.4
AE4805:UTM 12 - NR08 191 1
6 29.5
AE4805
AE4805|----------
-------|
AE4805| PID Reference Object Distance Geo
d. Az |
AE4805| ddd
mmss.s |
AE4805| AE4802 NR08 APPROX. 0.5 KM 190
3659.7 |
AE4805|----------
-------|
AE4805
AE4805 SUPERSEDED SURVEY CONTROL
AE4805
AE4805 NGVD 29 - 488.8 (meters) 1604. (feet) GP
S OBS
AE4805
AE4805.Superseded values are not recommended for survey control.
AE4805.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
AE4805.See file format.dat to determine how the superseded data were
derived.
AE4805
AE4805_MARKER: I = METAL ROD
AE4805_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AE4805_STAMPING: NR-18
AE4805_PROJECTION: PROJECTING 10 CENTIMETERS
AE4805_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AE4805+STABILITY: POSITION/ELEVATION WELL
AE4805_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE4805+SATELLITE: SATELLITE OBSERVATIONS - 1996
AE4805_ROD/PIPE-DEPTH: 3.7 meters
AE4805_SLEEVE-DEPTH : .7 meters
AE4805
AE4805 HISTORY - Date Condition Recov. By
AE4805 HISTORY - 1996 MONUMENTED ATEAM
AE4805

```
ELL
 AE4801'INCASED IN CONCRETE STAMPED NR-44 ON HANDWELL RIM. STATION IS
APPROX.
 AE4801'100 FT (30.48 M) SOUTH OF A FENCE SURROUNDING FACILITY BUILDIN
G, 45 FT
 AE4801'(13.72 M) NORTHEAST OF CENTERLINE OF NEW RIVER ROAD, 30 FT (9.
14 M)
 AE4801'WEST OF THE ANGLEPOINT OF A DRAINAGE DITCH HEADWALL AND 2.5 FT
 (0.76
 AE4801'M) SOUTHEAST OF A WITNESS POST. STATION IS LOCATED IN THE SOUT
HEAST
 AE4801'QUARTER OF SECTION 33, T7N, R2E, G.S.R.M.
1         National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 DV0140 ***********************************************************
*********
 DV0140  DESIGNATION -  DV0156
 DV0140  PID         -  DV0140
 DV0140  STATE/COUNTY-  AZ/MARICOPA
 DV0140  USGS QUAD   -  BISCUIT FLAT (1982)
 DV0140
 DV0140                          *CURRENT SURVEY CONTROL
 DV0140  ______________________________________________________________
_______
 DV0140* NAD 83(1992)-  33 50 16.40653(N)     112 08 44.17303(W)      AD
JUSTED
 DV0140* NAVD 88     -       525.69   (+/-2cm)     1724.7     (feet)  VE
RTCON
 DV0140  ______________________________________________________________
_______
 DV0140  LAPLACE CORR-           3.62   (seconds)                      DE
FLEC96
 DV0140  GEOID HEIGHT-         -29.07   (meters)                       GE
OID96
 DV0140
 DV0140  HORZ ORDER  -  FIRST
 DV0140  VERT ORDER  -  SECOND    CLASS 0 (See Below)
 DV0140
 DV0140.The horizontal coordinates were established by GPS observation
s
 DV0140.and adjusted by the National Geodetic Survey in November 1997.
 DV0140
 DV0140.The NAVD 88 height was computed by applying the VERTCON shift
value to
 DV0140.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.
)
 DV0140.The vertical order pertains to the superseded datum.
 DV0140
 DV0140.The Laplace correction was computed from DEFLEC96 derived defl
```

```
ections.
 DV0140
 DV0140.The geoid height was determined by GEOID96.
 DV0140
 DV0140;                      North         East      Units   Scale
Converg.
 DV0140;SPC AZ C      -   314,697.907   192,171.713    MT  0.99990553 -0
 07 38.9
 DV0140;UTM  12       - 3,744,771.984   394,002.741    MT  0.99973851 -0
 38 16.7
 DV0140
 DV0140                            SUPERSEDED SURVEY CONTROL
 DV0140
 DV0140  NGVD 29      -       525.086  (meters)    1722.72   (feet)  AD
J UNCH
 DV0140
 DV0140.Superseded values are not recommended for survey control.
 DV0140.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
.
 DV0140.See file format.dat to determine how the superseded data were
derived.
 DV0140
 DV0140_MARKER: DB = BENCH MARK DISK
 DV0140_SETTING: 80 = SET IN A BOULDER
 DV0140_STAMPING: U 56 1934
 DV0140_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 DV0140+STABILITY: SURFACE MOTION
 DV0140_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DV0140+SATELLITE: SATELLITE OBSERVATIONS - January 24, 1997
 DV0140
 DV0140  HISTORY      - Date     Condition       Recov. By
 DV0140  HISTORY      - 1934     MONUMENTED      CGS
 DV0140  HISTORY      - 1970     GOOD            NGS
 DV0140  HISTORY      - 1971     GOOD            NGS
 DV0140  HISTORY      - 19970124 GOOD            ATEAM
 DV0140
 DV0140                            STATION DESCRIPTION
 DV0140
 DV0140'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970
 DV0140'4.8 MI S FROM NEW RIVER.
 DV0140'4.8 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE OV
ER NEW
 DV0140'RIVER TO A HIGHWAY CUT AND THE MARK ON THE RIGHT.  154 FEET WE
ST OF
 DV0140'THE WEST RIGHT OF WAY FENCE, 124 FEET NORTHWEST OF THE WEST 1
OF 2
 DV0140'BRACED POWER POLES NUMBER 14 OVER 9, 2 FEET EAST OF THE WITNES
S POST
```

```
 DV0140'AND SET IN A DRILL HOLE IN THE TOP OF A 2-BY-3 FOOT BOULDER WH
ICH
 DV0140'PROJECTS ABOUT 1 1/2 FEET.  THE MARK IS 0.2 MILE SOUTH OF DEAD
 MANS
 DV0140'WASH.
 DV0140
 DV0140                              STATION RECOVERY (1971)
 DV0140
 DV0140'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1971
 DV0140'RECOVERED IN GOOD CONDITION.
 DV0140
 DV0140                              STATION RECOVERY (1997)
 DV0140
 DV0140'RECOVERY NOTE BY A TEAM PA INC 1997 (WRK)
 DV0140'RECOVERED AS DESCRIBED BY NGS OF 1971.
1        National Geodetic Survey,   Retrieval Date = APRIL 17, 1998
 DV1263 ***********************************************************
*********
 DV1263  DESIGNATION  -  Z 474
 DV1263  PID          -  DV1263
 DV1263  STATE/COUNTY-  AZ/MARICOPA
 DV1263  USGS QUAD    -  HEDGPETH HILLS (1982)
 DV1263
 DV1263                          *CURRENT SURVEY CONTROL
 DV1263  ______________________________________________________________
_____
 DV1263* NAD 83(1992)-  33 39 58.60034(N)     112 08 46.33625(W)      AD
JUSTED
 DV1263* NAVD 88      -       414.243  (meters)     1359.06   (feet)   AD
JUSTED
 DV1263  ______________________________________________________________
_____
 DV1263  X            -  -2,003,296.531 (meters)                       CO
MP
 DV1263  Y            -  -4,922,133.688 (meters)                       CO
MP
 DV1263  Z            -   3,515,911.871 (meters)                       CO
MP
 DV1263  LAPLACE CORR-           2.62  (seconds)                       DE
FLEC96
 DV1263  ELLIP HEIGHT-         384.73  (meters)                        GP
S OBS
 DV1263  GEOID HEIGHT-         -29.56  (meters)                        GE
OID96
 DV1263  DYNAMIC HT   -        413.761 (meters)     1357.48   (feet)   CO
MP
 DV1263  MODELED GRAV-     979,460.8   (mgal)                          NA
VD 88
```

```
 DV1263
 DV1263  HORZ ORDER  -  FIRST
 DV1263  VERT ORDER  -  FIRST     CLASS II
 DV1263  ELLP ORDER  -  FOURTH    CLASS II
 DV1263
 DV1263.The horizontal coordinates were established by GPS observation
s
 DV1263.and adjusted by the National Geodetic Survey in August 1993.
 DV1263
 DV1263.The orthometric height was determined by differential leveling
 DV1263.and adjusted by the National Geodetic Survey in June 1991.
 DV1263
 DV1263.The X, Y, and Z were computed from the position and the ellips
oidal ht.
 DV1263
 DV1263.The Laplace correction was computed from DEFLEC96 derived defl
ections.
 DV1263
 DV1263.The ellipsoidal height was determined by GPS observations
 DV1263.and is referenced to NAD 83.
 DV1263
 DV1263.The geoid height was determined by GEOID96.
 DV1263
 DV1263.The dynamic height is computed by dividing the NAVD 88
 DV1263.geopotential number by the normal gravity value computed on th
e
 DV1263.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DV1263.degrees latitude (G = 980.6199 gals.).
 DV1263
 DV1263.The modeled gravity was interpolated from observed gravity val
ues.
 DV1263
 DV1263;                    North         East      Units   Scale
Converg.
 DV1263;SPC AZ C      -   295,664.938   192,073.735   MT  0.99990558 -0
 07 38.1
 DV1263;UTM  12       - 3,725,743.811   393,735.610   MT  0.99973921 -0
 38 07.7
 DV1263
 DV1263                          SUPERSEDED SURVEY CONTROL
 DV1263
 DV1263  NAD 83(1986)-  33 39 58.59570(N)    112 08 46.34213(W)     AD
JUSTED
 DV1263  NGVD 29      -       413.51   (meters)    1356.7    (feet)  LE
VELING
 DV1263
 DV1263.Superseded values are not recommended for survey control.
 DV1263.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums
```

```
 DV1263.See file format.dat to determine how the superseded data were
derived.
 DV1263
 DV1263_MARKER: DB = BENCH MARK DISK
 DV1263_SETTING: 66 = SET IN ROCK OUTCROP
 DV1263_STAMPING: Z 474 1981
 DV1263_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 DV1263+STABILITY: POSITION/ELEVATION WELL
 DV1263_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DV1263+SATELLITE: SATELLITE OBSERVATIONS - October 12, 1986
 DV1263
 DV1263  HISTORY      - Date     Condition        Recov. By
 DV1263  HISTORY      - 1981     MONUMENTED       AZDT
 DV1263  HISTORY      - 1981     GOOD             NGS
 DV1263  HISTORY      - 1984     GOOD             AZDT
 DV1263  HISTORY      - 19861012 GOOD
 DV1263
 DV1263                          STATION DESCRIPTION
 DV1263
 DV1263'DESCRIBED BY ARIZONA DEPARTMENT OF TRANSPORTATION 1981 (BWM)
 DV1263'THE STATION IS LOCATED ABOUT 24 KM (15 MI) NORTH-NORTHEAST OF
 DV1263'DOWNTOWN, PHOENIX.
 DV1263'
 DV1263'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE HWY.
17
 DV1263'AND BEARDSLEY ROAD, GO WEST ON BEARDSLEY ROAD FOR 2.99 KM (1.8
5 MI)
 DV1263'TO A DIRT ROAD, TURN SOUTH ON THE DIRT ROAD (ALONG THE EAST SI
DE
 DV1263'OF THE ATONEMENT LUTHERAN CHURCH) FOR 0.3 KM (0.2 MI) TO THE
 DV1263'STATION IN THE TOP OF A ROCK OUTCROP ON THE SOUTH SIDE OF A LA
RGE
 DV1263'CUT IN THE NORTH SIDE OF A BOULDER COVERED MOUNTAIN.
 DV1263'
 DV1263'THE STATION IS A STANDARD NGS VERTICAL CONTROL DISK
 DV1263'STAMPED---Z 474 1981---,
 DV1263'SET INTO A DRILL HOLE IN A ROCK OUTCROP.  LOCATED
 DV1263'22 METERS (72 FT) EAST FROM THE WEST END OF THE CUT,
 DV1263'46.6 METERS (153 FT) WEST FROM THE EAST EDGE OF THE HORIZONTAL
 CUT,
 DV1263'14.3 METERS (47 FT) SOUTH FROM THE NORTH EDGE OF THE HORIZONTA
L CUT,
 DV1263'1.5 METERS (5 FT) WEST FROM A WITNESS POST.
 DV1263
 DV1263                          STATION RECOVERY (1981)
 DV1263
 DV1263'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1981
```

```
 DV1263'24.7 KM (15.35 MI) NW FROM PHOENIX.
 DV1263'21.4 KM (13.3 MI) NORTH ALONG INTERSTATE HIGHWAY 17 FROM THE
 DV1263'INTERSECTION OF GRAND AVENUE AT PHOENIX, THENCE 2.95 KM (1.85
MI)
 DV1263'WEST ALONG BEARDSLEY ROAD, THENCE 0.3 KM (0.2 MI) SOUTH ALONG
A DIRT
 DV1263'ROAD, IN TOP OF A ROCK OUTCROP ON THE SOUTH SIDE OF A LARGE CU
T IN THE
 DV1263'NORTH SIDE OF A BOULDER COVERED MOUNTAIN, 22. METERS (72 FT) E
AST OF
 DV1263'THE WEST END OF THE CUT, 46.7 METERS (153 FT) WEST OF THE EAST
 EDGE
 DV1263'OF THE HORIZONTAL CUT, 14.3 METERS (47 FT) SOUTH OF THE NORTH
EDGE OF
 DV1263'THE HORIZONTAL CUT.
 DV1263'THE MARK IS 1.5 METERS  W FROM A WITNESS POST.
 DV1263'THE MARK IS 7.5 M ABOVE THE DESERT FLOOR.
 DV1263
 DV1263                              STATION RECOVERY (1984)
 DV1263
 DV1263'RECOVERY NOTE BY ARIZONA DEPARTMENT OF TRANSPORTATION 1984
 DV1263'RECOVERED IN GOOD CONDITION.
 DV1263
 DV1263                              STATION RECOVERY (1986)
 DV1263
 DV1263'RECOVERED 1986
 DV1263'RECOVERED IN GOOD CONDITION.
```

Arizona Department of Transportation

206 South Seventeenth Avenue – Phoenix, Arizona 85007

Arizona Governor's Award for Quality
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Jane Dee Hull
Governor

PHOTOGRAMMETRY & MAPPING SECTION
GEODESY SERVICE
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FACSMILE TRANSMISSION

DATE: 7-12-99

TO: LEN JENSEN
ASL

FROM:

FAX: ( ) 244-1164

TOTAL NUMBER OF PAGES SENDING (INCLUDING THIS PAGE): 7

ADDITIONAL COMMENTS:

1 National Geodetic Survey, Retrieval Date = APRIL 23, 1999

DESIGNATION - M 343
PID - DV0129
STATE/COUNTY- AZ/MARICOPA
USGS QUAD - UNION HILLS (1983)

*CURRENT SURVEY CONTROL

* NAD 83(1992)-	33 44 33.62100(N)	112 07 27.23336(W)		ADJUSTED
* NAVD 88 -	460.92 (+/-2cm)	1512.2	(feet)	VERTCON
LAPLACE CORR-	3.17 (seconds)			DEFLEC96
GEOID HEIGHT-	-29.32 (meters)			GEOID96

HORZ ORDER - FIRST
VERT ORDER - SECOND CLASS 0 (See Below)

	North	East	Units	Scale	Converg.
;SPC AZ C -	304,133.271	194,128.447	MT	0.99990456	-0 06 55.1
;UTM 12 -	3,734,192.142	395,865.070	MT	0.99973368	-0 37 28.3

SUPERSEDED SURVEY CONTROL

NGVD 29 - 460.331 (m) 1510.27 (f) ADJ UNCH 2 0

.Superseded values are not recommended for survey control.
.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
.See file dsdata.txt to determine how the superseded data were derived.

_MARKER: DB = BENCH MARK DISK
_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)
_STAMPING: M 343 1959
_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
+STABILITY: SURFACE MOTION
_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
+SATELLITE: SATELLITE OBSERVATIONS - January 24, 1997

HISTORY	- Date	Condition	Recov. By
HISTORY	- 1959	MONUMENTED	CGS
HISTORY	- 1970	GOOD	NGS
HISTORY	- 19970124	GOOD	ATEAM

STATION DESCRIPTION

'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970
'11.4 MI S FROM NEW RIVER.
'11.4 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE OVER NEW
'RIVER OR 0.1 MILE NORTH OF MILE POST 220. 33 1/2 FEET WEST OF THE
'CENTER LINE OF THE WEST FRONTAGE ROAD, 3 FEET NORTHEAST OF THE WITNESS
'POST AND 2 FEET EAST OF THE RIGHT OF WAY FENCE LINE. THE MARK IS SET
'IN THE TOP OF A 12 INCH ROUND CONCRETE MONUMENT WHICH PROJECTS 2
'INCHES.

STATION RECOVERY (1997)

'RECOVERY NOTE BY A TEAM PA INC 1997 (WRK) 'RECOVERED AS DESCRIBED BY NGS OF 1970.

] National Geodetic Survey, Retrieval Date = APRIL 23, 1999

DESIGNATION - S 56
PID - DV0134
STATE/COUNTY- AZ/MARICOPA
USGS QUAD - BISCUIT FLAT (1982)

*CURRENT SURVEY CONTROL

* NAD 83(1986)-	33 47 17.	(N)	112 07 49.	(W)	SCALED
* NAVD 88 -	502.72	(+/-2cm)	1649.3	(feet)	VERTCON
GEOID HEIGHT-	-29.20	(meters)			GEOID96

VERT ORDER - SECOND CLASS 0 (See Below)

	North	East	Units	Estimated Accuracy
;SPC AZ C -	309,170.	193,580.	MT	(+/- 180 meters Scaled)

SUPERSEDED SURVEY CONTROL

NGVD 29 -	502.123	(m)	1647.30	(f) ADJ UNCH	2 0

.Superseded values are not recommended for survey control.
.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
.See file dsdata.txt to determine how the superseded data were derived.

_MARKER: DB = BENCH MARK DISK
_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT (ROUND)
_STAMPING: S 56 1934 (1647.484)
_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
+STABILITY: SURFACE MOTION

HISTORY	- Date	Condition	Recov. By
HISTORY	- 1934	MONUMENTED	CGS
HISTORY	- 1970	GOOD	NGS
HISTORY	- 1971	GOOD	NGS
HISTORY	- 1977	GOOD	LOCENG

STATION DESCRIPTION

'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970
'8.25 MI S FROM NEW RIVER.
'8.25 MILES SOUTH ALONG INTERSTATE HIGHWAY 17 FROM THE BRIDGE OVER NEW
'RIVER OR 9 POLES SOUTH OF CAREFREE INTERCHANGE TO THE MARK ON THE
'LEFT. ABOUT 700 FEET EAST OF THE CENTER OF THE NORTH BOUND LANE, 4
'FEET NORTHEAST OF POWER POLE MARKED 10 OVER 12 PS109896, 66 FEET EAST
'OF AN OLD GRAVELED ROAD AND 1 1/2 FEET SOUTH OF A WITNESS POST.

STATION RECOVERY (1977)

'RECOVERY NOTE BY LOCAL ENGINEER (INDIVIDUAL OR FIRM) 1977
'RECOVERED IN GOOD CONDITION.

JULY 1970

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

VERTICAL CONTROL DATA
by the
Coast and Geodetic Survey
SEA-LEVEL DATUM OF 1929

QUAD
A. TRONA
LATITUDE
LONGITUDE
DIAGRAM

ADOT_CMS_ECS TEL No.6022557424 Jul 12,99 15:17 No.001 P.04

LINE 102
(Continued)

BENCH MARK	ADJUSTED ELEVATION (Meters)	(Feet)
1476.06 (AHD)	449.729	1475.486
Q 267 RESET 1963		1493.106
M 343	460.331	1510.269
R 56	472.123	1548.957
MUNSON RM 2	482.673	1583.570
MUNSON	483.041	1584.777
MUNSON RM 1	482.988	1584.603
S 56	502.123	1647.382
T 56	520.625	1708.084
L 343 RESET 1967		1761.224
MICRO	619.454	2032.325
MICRO RM 1	618.225	2028.293
MICRO RM 2	619.913	2033.831
U 56	525.086	1722.720
HOUND RM 1	548.679	1800.124
HOUND	548.815	1800.571
HOUND RM 2	549.100	1801.506
V 56	567.636	1862.319
K 343	589.507	1934.074
W 56	600.592	1970.442
NEW RM 1	617.579	2026.174
NEW	617.653	2026.417
NEW RM 2	617.440	2025.718
NEW RIVER RM 2	640.608	2101.728
NEW RIVER	641.348	2104.156
NEW RIVER RM 1	640.789	2102.322
U 342	608.674	1996.958
J 343	620.200	2034.773
X 56	NOT LEVELED TO	
~~BUD RM 2~~ DEST	641.539	2104.783
~~BUD~~ DEST	641.779	2105.570
~~BUD RM 1~~ DEST	641.873	2105.878
Y 56	NOT RECOVERED	
H 343	664.409	2179.815
G 343	687.222	2254.661
* Z 56 Recovered 1/74	NOT RECOVERED	
F 343	658.255	2159.625
MOP	628.971	2063.549
MOP RM 2	628.894	2063.296
MOP RM 1	628.961	2063.516

LINE 103
(Second-order)

This line follows State Hwy. 69 South to the end of the quad.

The field work (L-17302) was done in the winter of 1959 by a party supervised by S.L. Hollis, Jr. and in cooperation with the Arizona Highway Department.

These elevations are based on a supplementary adjustment of 1959.

BENCH MARK	ADJUSTED ELEVATION (Meters)	(Feet)
N 343	437.964	1436.887
PAT RM 1	434.971	1427.067
PAT	434.962	1427.038
PAT RM 2	435.019	1427.225
1412.46 (AHD)	430.360	1411.939
P 343	426.336	1398.737
Q 343	419.871	1377.527
~~R 343 RESET 1963~~		1353.914
~~BELL RM 1~~	406.784	1334.590
~~BELL~~	406.443	1333.472
~~BELL RM 2~~	406.456	1333.514
S 343 RESET 1963		1304.194
AM-2-RM-1	384.408	1261.179
AM 2	384.374	1261.067
AM 2 RM 2	384.363	1261.031
T 343 RESET 1961		1290.591
U 343 RESET 1963		1268.702
PEORIA RM 1	380.299	1247.698
PEORIA	380.079	1246.976
PEORIA RM 2	380.027	1246.805
V 343	368.270	1208.232
1195.85 (AHD)	364.335	1195.322
STELLA RM 1	355.394	1165.988
STELLA RM 2	355.346	1165.831
STELLA	355.275	1165.598
W 343	349.375	1146.241

LINE 104
(Continued)

These elevations are derived from the latest leveling and are based on a supplementary adjustment of 1949.

BENCH MARK	ADJUSTED ELEVATION (Meters)	(Feet)
G 56	NOT RECOVERED	
S 284	350.695	1150.572
T 284 RESET 1962		1166.861
U 284	363.578	1192.839
V 284	368.868	1210.194
C 267	373.972	1226.940

SPUR LINE WEST

W 284	367.834	1206.802
X 284	361.168	1184.932

END OF THE SPUR LINE

LINE 105
(Second-order)

This line follows Lateral 18 N to the jct. of line 101.

The field work (L-11301) was done in March 1945 by a party supervised by C. Symns, Jr.

These elevations are based on a supplementary adjustment of 1949.

BENCH MARK	ADJUSTED ELEVATION (Meters)	(Feet)
1161.38	353.983	1161.359
Q 258	355.588	1166.625
N 258	366.377	1202.022
1264.67	367.175	1204.640
M 258 (USRS)	371.708	1219.2
L 258	375.750	123
K 258	374.774	122

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C. Symn
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BM 1140
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based o
of 1949

BENCH M

M 23
*1108.60
*1112.49
RV 74 (
R 284

*Q 284
ALHAMBR
1116.94
ALHAMBR
TT 61 (

GG 259
1134.45
31.86
40.58
RH 259

FILE COPY

NEW RIVER NO. 1 (215) Arizona J.T. Stewart, 1901-1903

Third Order Tentative Adj. Elevations
Based on Sea Level Datum
Book: 9282 of 1929

Latitude 33°45' Longitude 112°00'

(2) FROM NEW RIVER NO. 4 QUADRANGLE (192) NORTH ALONG ROADS TO NEW RIVER

New River Station, 9.4 mi. S. of, 95 ft. W. of rd.; iron post stamped "1625 PHNX"
New Description: New River School, S. on Black Canyon Highway for 10.5 mi. to T-rd. E., thence 0.15 mi. E. of crossroad, 505 ft. E. of Black Canyon Highway, 348 ft. NNW. of crossroad, 96 ft. W. of old highway; iron post with tablet stamped "1625 PHNX" 1624.947

New River Station, 5.8 mi. S. of, 25 ft. E. of rd; iron post stamped "1705 PHNX" (Old rd. is W., post not looked for) 495.2838
New Description: New River School, S. on Black Canyon Highway for 6.9 mi., 524 ft. W. of Black Canyon Highway, 166 ft. W. of old highway, 50 ft. E. of old rd.; iron post with tablet stamped "1705 PHNX" 1704.873

New River Station, 2.6 mi. S. of, E. of rd.; iron post stamped "1910 PHNX" (C&GS Tie)
New Description: New River School, S. on Black Canyon Highway for 3.6 mi., 142 ft. E. of centerline of Black Canyon Highway; concrete post in stove pipe; tablet stamped "1910 PHNX" 1910.348

8/15/63 tch

NEW RIVER NO. 1 (215) Arizona H.R. Poulsen, 1963

Third Order Adjusted Elevations Based On Sea Level Datum of 1929

Book: FV 478

Latitude 33°45' Longitude 112°00'

(3) FROM NEW RIVER NORTHWEST ALONG ROAD TO NEW RIVER SCHOOL THENCE SOUTHEAST INTO WEST EDGE OF CAVE CREEK NO. 2 QUADRANGLE (214)

USC&GS BM "U 342" (See Line No. 41, Arizona) 1996.958

New River School, 3.1 mi. W. of, 59 ft. S. of Y-rd. N., a standard GLO disk stamped "SW 1/16 S26 1951" 2029.68

New River School, 1.8 mi. W. of, 24 ft. N. of rd., in concrete post projecting 0.3 ft. above ground; a standard tablet stamped "1 HRP 1963 2091" Not Found 2091.376

Reference mark, 29 ft. W. of tablet, 25 ft. N. of rd.; top of reinforcing rod 2090.98

New River School, 16 ft. N. and 104 ft. E. of front gate to schoolyard, 54 ft. N. of rd., 16 ft. N. of fence corner, 2 ft. E. of fence; in concrete post; standard tablet stamped "2 HRP 1963 2150" 2149.716

Reference mark, 57 ft. S. and 172 ft. E. of tablet, 2 ft. S. and 8 ft. W. of power pole, in Y-junction of rds., on rock projecting 0.5 ft. above ground; a chiseled square 655.2334 2149.21

New River School, 0.6 mi. E. of, 70 ft. E. of drain, 62 ft. N. of rd., 3 ft. E. and 1 ft. S. of corner post; on rock projecting 0.4 ft. above ground; a chiseled square 2112.62

New River School, 1.6 mi. E. of, 100 ft. S. of drain, 30 ft. E. of rd.; top of rock projecting 0.2 ft. above ground; a chiseled square 2062.16

New River School, 1.8 mi. SE. of, at entrance to Shangrila Ranch, in triangle formed by Y-junction, 39 ft. SW. of rd., in concrete post projecting 0.3 ft. above ground; a standard tablet stamped "3 HRP 1963 2052" 2052.484

New River School, 2.3 mi. SE. of, near intersection with Circle Mt. Rd., 55 ft. S. of Circle Mt. Rd., 30 ft. W. of New River Rd., on rock projecting 0.3 ft. above ground; a chiseled square 2055.04

New River School, 4.2 mi. SE. of, near Houdah Rd. junction, 94 ft. E. of Y-junction, 87 ft. N. of Houdah Rd. crossing, 55 ft. NE. of rd.; in concrete post projecting 0.3 ft.; a standard tablet stamped "4 HRP 1963 1994" 1994.195

607.8306

8/15/63 tch

FILE COPY

NEW RIVER NO. 1 (215) Arizona H.R. Poulsen, 1963

Third Order Adjusted Elevations Based On Sea Level Datum of 1929

Book: FV 478

(3) New River School, 5.2 mi. SE. of, at summit, 35 ft. W. of rd.; on rock projecting 0.7 ft.; a chiseled square — 2074.79

New River School, 6.2 mi. SE. of, 250 ft. E. of rd., in S. concrete footing of steel transmission-line tower; a standard tablet stamped "5 HRP 1963 1998" — 1997.575

New River School, 7.2 mi. SE. of, at crossroad, 76 ft. E. of N.-S. rd., 35 ft. SW. of rd.; on rock projecting 0.7 ft. above ground; a chiseled square — 1888.92

New River School, 8.2 mi. E. of, at rd. crossing and cattle guard, 0.8 mi. W., thence 1.6 mi. S., thence 5.6 mi. NW. from school at Cave Creek, 33 ft. S. of cattle guard, 25 ft. E. of N.-S. rd., 3 ft. W. of fence; in concrete post projecting 0.5 ft. above ground; a standard tablet stamped "6 HRP 1963 1864" — 1864.044

Reference mark, 43 ft. N. of tablet, on NE. corner of cattle guard; a chiseled square — 1862.19

Cave Creek School, 0.8 mi. W., thence 1.6 mi. S. along Cave Creek Rd., thence 5.3 mi. NW. from, 49 ft. NE. of service rd., 50 ft. S. of rd.; on the NW. concrete footing of steel transmission-line tower; a chiseled square — 1891.88

Cave Creek School, 0.8 mi. W., thence 1.6 mi. S. along Cave Creek Rd., thence 4.6 mi. NW. from, at Y-rd. N. and cattle guard, 73 ft. N. of cattle guard, 2.4 ft. E. of N.-S. fence; in concrete post projecting 0.6 ft. above ground; a standard tablet stamped "7 HRP 1963 1900" — 1899.870

Reference mark, 79 ft. S. of tablet, on SW. corner of cattle guard; a chiseled square — 1898.02

Cave Creek School, 0.8 mi. W., thence 1.6 mi. S. along Cave Creek Rd., thence 3.5 mi. NW. from, 37 ft. N. of rd.; on rock projecting 0.4 ft. above ground; a chiseled square — 1908.43

Cave Creek School, 0.8 mi. W., thence 1.6 mi. S. along Cave Creek Rd., thence 3 mi. NW. from, at junction of Y-rd. N., in semi-circle of flat leaf cacti, 35 ft. N. of rd.; top of black pointed rock — 1921.34

8/15/63 tch

APPENDIX B

Raw GPS Data

APPENDIX B

Raw GPS Data

Coords

COORDINATE ADJUSTMENT SUMMARY
NETWORK = SKUNKCTL
TIME = Tue Jul 13 13:26:38 1999

Datum = NAD-83
Coordinate System = Geographic
Zone = Global

Network Adjustment Constraints:
  4 fixed coordinates in y
  4 fixed coordinates in x
  5 fixed coordinates in H
  5 fixed coordinates in h

POINT NAME	OLD COORDS	ADJUST	NEW COORDS	1.96å
1 100				
LAT=	33ø 43' 32.390950"	+0.000000"	33ø 43' 32.390950"	FIXED
LON=	112ø 07' 08.515350"	+0.000000"	112ø 07' 08.515350"	FIXED
ELL HT=	418.9300m	+0.0000m	418.9300m	FIXED
ORTHO HT=	447.6900m	+0.0000m	447.6900m	FIXED
GEOID HT=	-28.7600m	+0.0000m	-28.7600m	FIXED
2 101				
LAT=	33ø 54' 24.694840"	+0.000000"	33ø 54' 24.694840"	FIXED
LON=	112ø 05' 00.876800"	+0.000000"	112ø 05' 00.876800"	FIXED
ELL HT=	614.8237m	+0.0000m	614.8237m	0.023570m
ORTHO HT=	642.7903m	+0.0000m	642.7903m	0.044896m
GEOID HT=	-27.9666m	+0.0000m	-27.9666m	0.038211m
3 102				
LAT=	33ø 55' 05.667388"	+0.000000"	33ø 55' 05.667388"	0.016908m
LON=	112ø 05' 26.175435"	+0.000001"	112ø 05' 26.175435"	0.010987m
ELL HT=	627.3139m	+0.0000m	627.3139m	FIXED
ORTHO HT=	655.2334m	+0.0000m	655.2334m	FIXED

		Coords			
GEOID HT=		-27.9195m	+0.0000m	-27.9195m	FIXED
4 103					
LAT=	33ø 52'	18.887060"	+0.000000"	33ø 52' 18.887060"	0.009971m
LON=	112ø 03'	54.028030"	+0.000002"	112ø 03' 54.028028"	0.006888m
ELL HT=		579.6980m	+0.0000m	579.6980m	FIXED
ORTHO HT=		607.8306m	+0.0000m	607.8306m	FIXED
GEOID HT=		-28.1326m	+0.0000m	-28.1326m	FIXED
5 104					
LAT=	33ø 50'	30.661788"	+0.000000"	33ø 50' 30.661788"	0.012600m
LON=	112ø 06'	04.009084"	+0.000000"	112ø 06' 04.009084"	0.013109m
ELL HT=		535.4646m	+0.0000m	535.4646m	0.032553m
ORTHO HT=		563.8167m	+0.0000m	563.8167m	0.070357m
GEOID HT=		-28.3521m	+0.0000m	-28.3521m	0.062373m
6 105					
LAT=	33ø 47'	56.173650"	+0.000000"	33ø 47' 56.173650"	FIXED
LON=	112ø 05'	57.208540"	+0.000000"	112ø 05' 57.208540"	FIXED
ELL HT=		532.7260m	+0.0001m	532.7261m	0.033134m
ORTHO HT=		561.2443m	+0.0001m	561.2443m	0.070381m
GEOID HT=		-28.5183m	+0.0000m	-28.5183m	0.062094m
7 106					
LAT=	33ø 47'	17.149130"	+0.000000"	33ø 47' 17.149130"	0.024980m
LON=	112ø 07'	50.576083"	+0.000000"	112ø 07' 50.576083"	0.021545m
ELL HT=		473.4953m	+0.0000m	473.4953m	FIXED
ORTHO HT=		502.1230m	+0.0000m	502.1230m	FIXED
GEOID HT=		-28.6277m	+0.0000m	-28.6277m	FIXED
8 107					
LAT=	33ø 46'	52.164120"	+0.000000"	33ø 46' 52.164120"	0.016341m
LON=	112ø 07'	49.191620"	+0.000000"	112ø 07' 49.191620"	0.013006m
ELL HT=		466.6250m	+0.0000m	466.6250m	0.037748m
ORTHO HT=		495.2687m	+0.0000m	495.2687m	0.048193m
GEOID HT=		-28.6436m	+0.0000m	-28.6436m	0.029961m

Coords

9 108

LAT=	33ø 46' 13.463469"	+0.000000"	33ø 46' 13.463469"	0.017044m
LON=	112ø 06' 00.470774"	+0.000001"	112ø 06' 00.470773"	0.015708m
ELL HT=	455.8549m	+0.0000m	455.8549m	0.040452m
ORTHO HT=	484.4615m	+0.0000m	484.4615m	0.076229m
GEOID HT=	-28.6066m	+0.0000m	-28.6066m	0.064611m

10 109

LAT=	33ø 44' 33.621000"	+0.000000"	33ø 44' 33.621000"	FIXED
LON=	112ø 07' 27.233360"	+0.000000"	112ø 07' 27.233360"	FIXED
ELL HT=	431.6210m	+0.0000m	431.6210m	FIXED
ORTHO HT=	460.3310m	+0.0000m	460.3310m	FIXED
GEOID HT=	-28.7100m	+0.0000m	-28.7100m	FIXED

Project: SKUNKCTL
Processed: Tuesday, July 13, 1999 12:12 WAVE 2.30

	From Station	To Station	Solution Type	Slope Distance (meters)	Ratio	Reference Variance	From Ant. Ht. (meas. meters)	To Ant. Ht. (meas. meters)
1	100	109	L1 fixed	1947.246	17.0	3.036	1.558	1.591
2	100	108	Iono free fixed	5263.168	25.1	0.370	1.558	1.695
3	100	107	Iono free fixed	6244.116	21.0	0.602	1.558	1.515
4	100	106	Iono free fixed	7009.721	10.1	1.714	1.558	1.336
5	100	105	Iono free fixed	8333.255	19.8	0.576	1.558	1.759
6	100	104	Iono free fixed	12995.122	47.3	0.529	1.558	1.768
7	100	103	Iono free fixed	16977.737	59.1	0.251	1.558	1.601
8	100	102	Iono free fixed	21524.734	16.8	0.597	1.558	1.625
9	100	101	Iono free fixed	20366.917	10.5	1.891	1.558	1.480
10	101	109	Iono free fixed	18598.748	12.5	1.917	1.480	1.591
11	101	108	Iono free fixed	15214.766	10.4	2.051	1.480	1.695
12	101	107	Iono free fixed	14600.948	30.5	0.735	1.480	1.515
13	101	106	Iono free fixed	13878.638	17.7	2.475	1.480	1.336
14	101	105	Iono free fixed	12059.367	10.3	0.776	1.480	1.759
15	101	104	Iono free fixed	7392.206	21.9	0.535	1.480	1.768
16	101	103	L1 fixed	4240.377	32.2	0.731	1.480	1.601
17	101	102	L1 fixed	1420.072	33.6	3.453	1.480	1.625

Stats
ADJUSTMENT STATISTICS SUMMARY
NETWORK = SKUNKCTL
TIME = Tue Jul 13 13:26:38 1999

ADJUSTMENT SUMMARY

Network Reference Factor = 1.00
Chi-Square Test (à = 95%) = PASS
Degrees of Freedom = 32.00

GPS OBSERVATIONS
Reference Factor = 1.00
r = 30.00

GPS Solution	1	Reference Factor =	0.80	r =	2.92
GPS Solution	2	Reference Factor =	1.10	r =	0.46
GPS Solution	3	Reference Factor =	1.38	r =	1.23
GPS Solution	4	Reference Factor =	0.58	r =	1.65
GPS Solution	5	Reference Factor =	1.14	r =	2.34
GPS Solution	6	Reference Factor =	0.61	r =	1.39
GPS Solution	7	Reference Factor =	1.53	r =	1.87
GPS Solution	8	Reference Factor =	0.85	r =	1.97
GPS Solution	9	Reference Factor =	1.61	r =	1.73
GPS Solution	10	Reference Factor =	0.44	r =	2.86
GPS Solution	11	Reference Factor =	1.12	r =	2.46
GPS Solution	12	Reference Factor =	1.38	r =	1.55
GPS Solution	13	Reference Factor =	0.61	r =	2.02
GPS Solution	14	Reference Factor =	0.33	r =	2.45
GPS Solution	15	Reference Factor =	0.62	r =	1.33
GPS Solution	16	Reference Factor =	1.59	r =	0.66
GPS Solution	17	Reference Factor =	0.88	r =	1.11

GEOID MODEL
Reference Factor = 1.00
r = 2.00

Geoid Heights:	Reference Factor =	1.00	r =	2.00
Delta Geoid Heights:	Reference Factor =	1.00	r =	0.00

WEIGHTING STRATEGIES:

GPS OBSERVATIONS:

Stats

Scalar Weighting Strategy:

Alternative Scalar Set Applied Globally = 5.37

No summation weighting strategy was used

Station Error Strategy:

H.I. error = 0.0020

Tribrach error = 0.0020

GEOID MODEL:

Scalar Weighting Strategy:

Alternative Scalar Set Applied Globally = 0.22

No summation weighting strategy was used

Results of adjusted Geoid model:

Noise in vertical GPS observations: 0.00339824

Variance of geoid model: 0.01522062

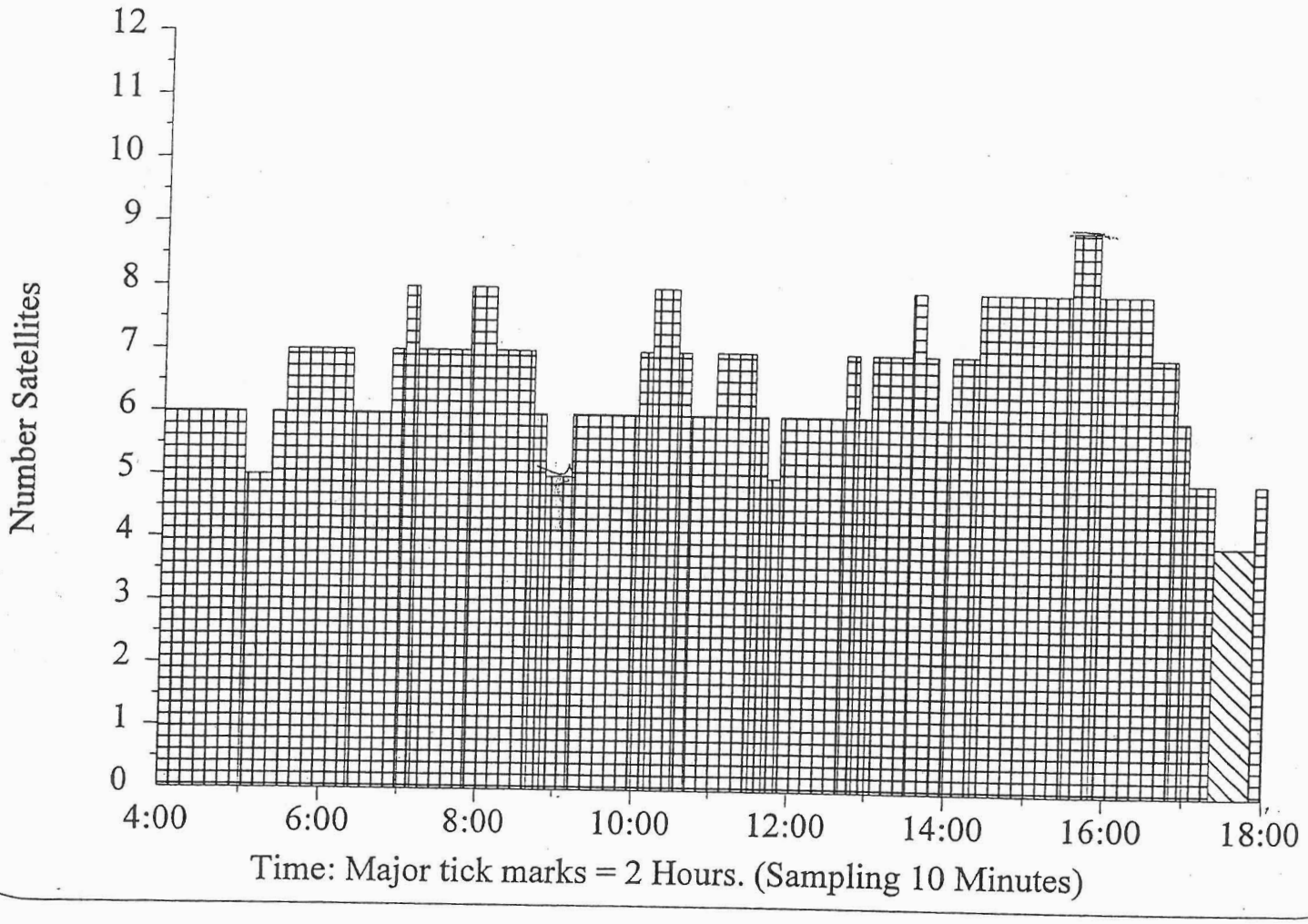
Use of correlated Residual Geoid Model may improve geoid heights

Number Satellites

Point: Phoenix
Date: Wednesday, July 14, 1999
26 Satellites considered : 1 2 3 4 5 6 7 8 9 10 13 14 16 17 18 19 21 22 23 24 25 26 27 29 30 31

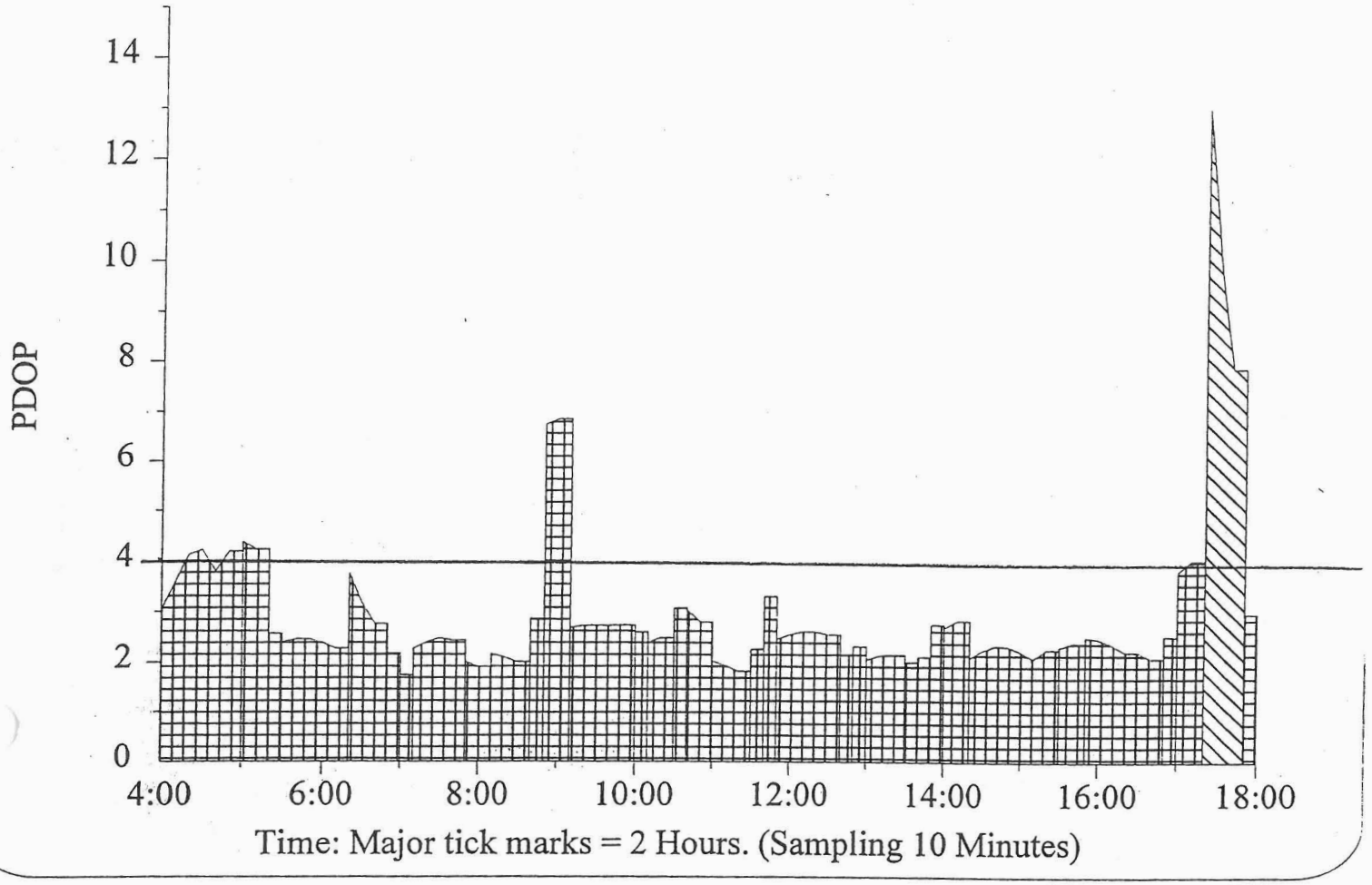
Lat 33:26:0 N Lon 112:01:0 W
Threshold Elevation 15 (deg)

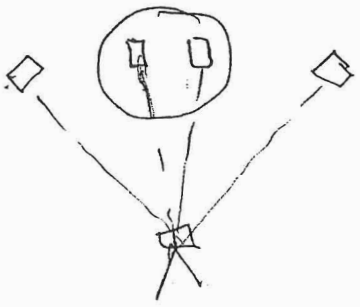
Almanac: CURRENT.EPH 6/28/99
Time Zone 'Mountain Std USA' -7:00

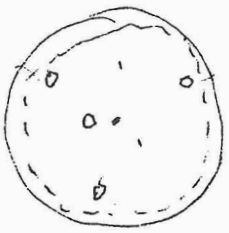


PDOP

Point: Phoenix
Date: Wednesday, July 14, 1999
Lat 33:26:0 N Lon 112:01:0 W
Threshold Elevation 15 (deg)
Almanac: CURRENT.EPH 6/28/99
Time Zone 'Mountain Std USA' -7:00
26 Satellites considered : 1 2 3 4 5 6 7 8 9 10 13 14 16 17 18 19 21 22 23 24 25 26 27 29 30 31

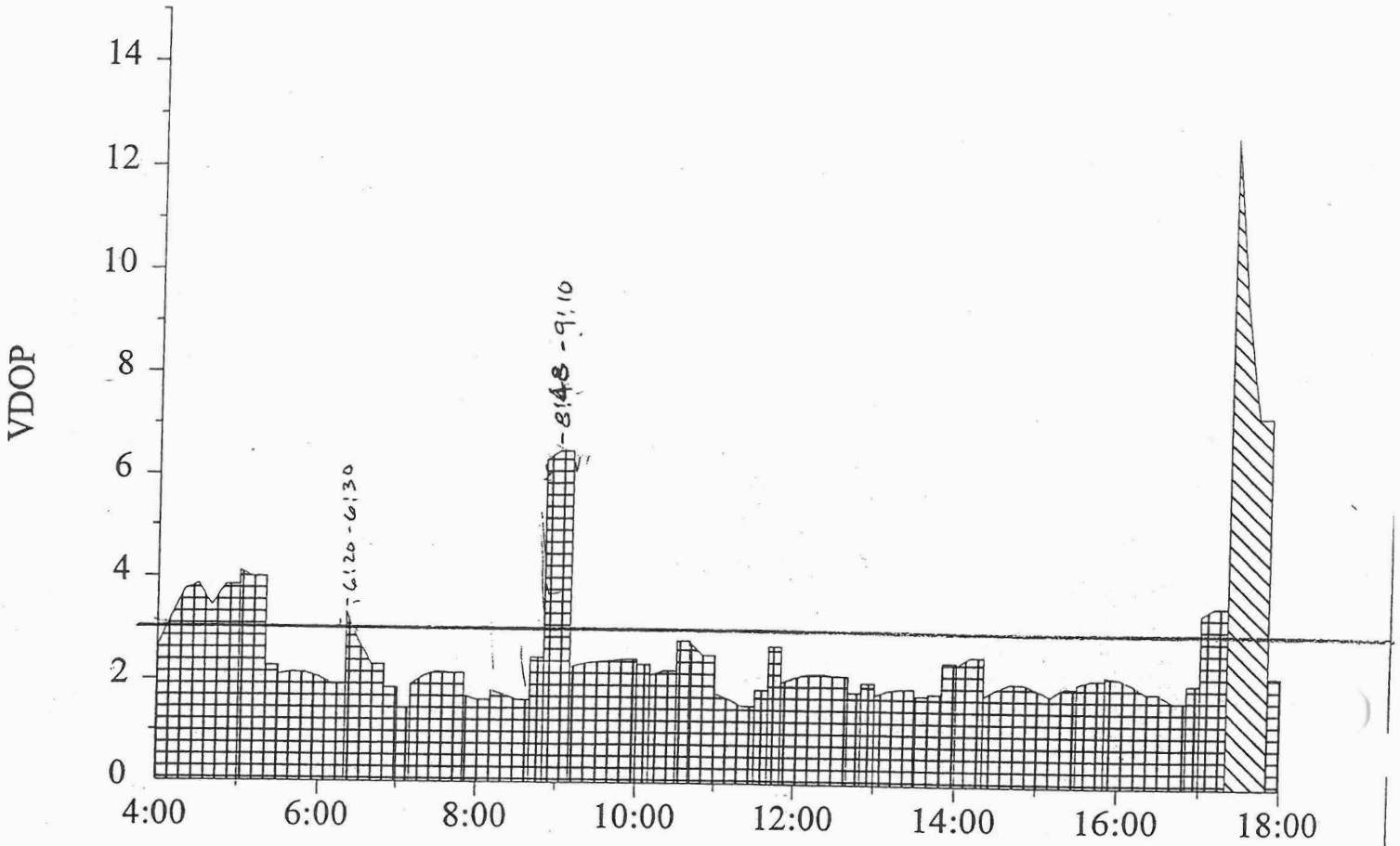






VDOP

Point: Phoenix
Date: Wednesday, July 14, 1999
Lat 33:26:0 N Lon 112:01:0 W
Threshold Elevation 15 (deg)
Almanac: CURRENT.EPH 6/28/99
Time Zone 'Mountain Std USA' -7:00
26 Satellites considered : 1 2 3 4 5 6 7 8 9 10 13 14 16 17 18 19 21 22 23 24 25 26 27 29 30 31



Time: Major tick marks = 2 Hours. (Sampling 10 Minutes)

File C:\TSOffice\Projects\SKUNKALL\Checkin\Skunkall.dc

SC V07 Copyright Trimble Navigation Ltd, 1996.

	Serial no 40	30-Jul-99 09:28		
	Angle Degrees	Dist Feet	Press inch Hg	
	Temp Fahrenheit	Coord N-E-Elv	H.obs Right	
JOB	Job ID Skunkall			
	Atmos crn Yes	C and R crn Yes	Refrac cnst 0.20	
	Elev Yes	Sea level crn No		
PROJ TM	Transverse Mercator			
	Orig Lat 31°00'00"N		Orig Nrth 0.000	
	Orig Lng 111°55'00"W		Orig East 700000.000	
	Orig Hgt 0.000		Orig Elev 0.000	
	Orient 1 0°00'00"		Orient 2 0°00'00"	
	Scale 0.9999			
LOCELL TM	Local Rad 20925646.325		Flat. 298.2572215381	
DATUM TM	Molodensky			
	Srce Rad 20925646.325		Srce Flat 298.257223563	
	Rotn X 0°00'00"		Rotn Y 0°00'00"	
	Rotn Z 0°00'00"		Trans X 0.000	
	Trans Y 0.000		Trans Z 0.000	
	Scale 0			
GPSANT KI	Antenna ht 0.000		Measuremt True	
ORIENTATIONNMAzmth	From North		Dir North and East	
HGTADJ TM	Geoid model			
	Orig Nrth 0.000		Slope N 0	
	Orig East 0.000		Slope E 0	
	Hgt Const 0.000			
	Geoid GEOID96 (Conus)			
NOTE NM	Skunkall			
GRDPOS KI	Point ID 100	Nrth 991620.645	East 638472.746	
	Class Normal	Elv 1468.799	Code STA SKUNK	
	Mthd User Input			
GRDPOS KI	Point ID 101	Nrth 1057533.321	East 649359.451	
	Class Normal	Elv 2108.891	Code STA NR03	
	Mthd User Input			
GRDPOS KI	Point ID 102	Nrth 1061678.246	East 647234.351	
	Class Normal	Elv 2149.715	Code 2HRP BM	
	Mthd User Input			

GRDPOS KI Point ID 103 Nrth 1044808.439 East 654974.964
Class Normal Elv 1994.196 Code 4HRP BM
Mthd User Input

GRDPOS KI Point ID 104 Nrth 1033887.174 East 643996.353
Class Normal Elv 1849.793 Code SPIKE BASE PT
Mthd User Input

GRDPOS KI Point ID 105 Nrth 1018271.165 East 644542.231
Class Normal Elv 1841.352 Code STA NR17
Mthd User Input

GRDPOS KI Point ID 106 Nrth 1014345.170 East 634967.632
Class Normal Elv 1647.385 Code S56 BM
Mthd User Input

GRDPOS KI Point ID 107 Nrth 1011819.564 East 635079.236
Class Normal Elv 1624.898 Code PHNX BM
Mthd User Input

GRDPOS KI Point ID 108 Nrth 1007890.218 East 644248.466
Class Normal Elv 1589.442 Code SPIKE BASE PT
Mthd User Input

GRDPOS KI Point ID 109 Nrth 997812.568 East 636904.352
Class Normal Elv 1510.272 Code STA M343
Mthd User Input

ORIENTATIONNMAzmth From North Dir North and East

F FILE FC File Used No
ID 00000 Name

PLANE KI Orig Nrth <null> Orig East <null>
Trans N <null> Trans E <null>
Rotation <null> Scale <null>

HGTADJ KI Geoid model
Orig Nrth <null> Slope N <null>
Orig East <null> Slope E <null>
Hgt Const <null>
Geoid az geoid 96 (conus)

HGTADJ KI Geoid model
Orig Nrth <null> Slope N <null>
Orig East <null> Slope E <null>
Hgt Const <null>
Geoid az geoid 96 (conus)

SURVEY KI Elev mask 13 PDOP mask 6.0

'UIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/19/1999 Time 06:47:56

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.305 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.305 Measuremt Uncorrected

GPSREF KI Reference 108

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/19/1999 Time 06:49:08

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS SI Point ID 108 Lat 33°46'13.46346"N Lng 112°06'00.47077"W
Class Check Hgt 1493.700 Code SPIKE BASE PT
Mthd User Input H.pr <null> V.pr <null>

GPSANT KI Antenna ht 5.272 Measuremt True

GPSREF KI Reference 108

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

INIT KI Init event Gained Week 1019
Init type On the fly seconds 136287.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 07:18:01

GPSVEC SO Point ID 107A DX -7695.750 DY 5441.992
Class Stake out DZ 3272.473 Code CK SHOT PT#107 7
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

F-CODE SO Code CK SHOT PT#107 7/19/99

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 179 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 137671.0 End wk 1019 sec 137849.0

POINT DGN SO
Name 107 To the Point

PT POLAR D SO
Azmth 329°54'05.501" H.dist 0.029
V.dist -0.038

GPSVEC SO Point ID 104A DX 5083.996 DY 13313.692
Class Stake out DZ 21751.076 Code CK SHOT PT#104 7
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

F-CODE SO Code CK SHOT PT#104 7/19/99

SQC1 NM Min SVs 8 PDOP max 0.1
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 139374.0 End wk 1019 sec 139552.0

POINT DGN SO
Name 104 To the Point

PT POLAR D SO
Azmth 112°08'49.545" H.dist 0.018
V.dist -0.109

NOTE TS Time Date 07/19/1999 Time 08:16:00

GPSVEC SO Point ID 100A DX -8690.843 DY -6125.741
Class Stake out DZ -13605.685 Code CK SHOT PT#100 7
Mthd Phase Diff. H.pr 0.020 V.pr 0.027

F-CODE SO Code CK SHOT PT#100 7/19/99

SQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 152 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 141183.0 End wk 1019 sec 141361.0

POINT DGN SO
Name 100 To the Point

PT POLAR D SO
Azmth 273°17'28.914" H.dist 0.057
V.dist 0.038

INIT KI Init event Lost Week 1019
Init type On the fly seconds 141467.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 141502.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 08:50:29

GPSVEC TP Point ID 50 DX -6871.808 DY -2237.374
Class Normal DZ -7102.783 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.030

GPSQC1 NM Min SVs 5 PDOP max 0.3
Total GPS pos 140 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 143263.0 End wk 1019 sec 143441.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 143456.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 143478.0
Init counter 3 Point ID 50
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 50CK DX -6871.802 DY -2237.365
Class Normal DZ -7102.810 Code PREMARK
Mthd Phase Diff. H.pr 0.015 V.pr 0.031

GPSQC1 NM Min SVs 6 PDOP max 0.3
Total GPS pos 169 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 143500.0 End wk 1019 sec 143678.0

GPSVEC TP Point ID 1024 DX -6481.625 DY -2317.351
Class Normal DZ -6992.840 Code 3/4"PIPE
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 169 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 144201.0 End wk 1019 sec 144380.0

NOTE TS Time Date 07/19/1999 Time 09:31:54

GPSVEC TP Point ID 51 DX -4873.200 DY -2279.277
Class Normal DZ -6009.740 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 173 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 145748.0 End wk 1019 sec 145926.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 145938.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 145948.0
Init counter 4 Point ID 51
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/19/1999 Time 09:33:47

GPSANT KI Antenna ht 5.272 Measuremt True

GPSREF KI Reference 108

INIT KI Init event Gained Week 1019
Init type On the fly seconds 146077.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

GPSVEC TP Point ID 52 DX -4422.326 DY -3993.024
Class Normal DZ -8127.460 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.030

GPSQC1 NM Min SVs 9 PDOP max 0.2
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 147230.0 End wk 1019 sec 147409.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 147419.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 147428.0
Init counter 2 Point ID 52
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE KI LINE. Name: 0001, Code: , Method: Brg-dist, Start pt: 52,

NOTE KI End pt: , Azimuth: 0.000°, Length: 4000.000ft, Grade: ?

NOTE TS Time Date 07/19/1999 Time 10:11:34

GPSVEC TP Point ID 53 DX -3008.299 DY -2237.399
Class Normal DZ -4843.427 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.031

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 148127.0 End wk 1019 sec 148306.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 148319.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 148332.0
Init counter 3 Point ID 53
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 10:44:05

GPSVEC TP Point ID 54 DX -4166.206 DY -94.369
Class Normal DZ -2533.394 Code PREMARK
Mthd Phase Diff. H.pr 0.014 V.pr 0.030

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 149332.0 End wk 1019 sec 149510.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 149516.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 149526.0
Init counter 4 Point ID 54
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE KI LINE. Name: 0002, Code: , Method: Brg-dist, Start pt: 54,

NOTE KI End pt: , Azimuth: 90.000°, Length: 2600.000ft, Grade: ?

INIT KI Init event Lost Week 1019
Init type Known Point seconds 149805.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 149842.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE KI LINE. Name: 0003, Code: , Method: Brg-dist, Start pt: 108,

NOTE KI End pt: , Azimuth: 90.000°, Length: 2200.000ft, Grade: ?

NOTE KI LINE. Name: 0004, Code: 8, Method: Brg-dist, Start pt: 54,

NOTE KI End pt: , Azimuth: 90.000°, Length: 9900.000ft, Grade: ?

GPSVEC TP Point ID 55 DX 1538.694 DY -1711.329
Class Normal DZ -1464.558 Code PREMARK
Mthd Phase Diff. H.pr 0.020 V.pr 0.028

GPSQC1 NM Min SVs 5 PDOP max 0.2
Total GPS pos 169 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 151831.0 End wk 1019 sec 152009.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 152017.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 152027.0
Init counter 7 Point ID 55
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 11:31:05

GPSVEC TP Point ID 56 DX 3679.843 DY -1992.086
Class Normal DZ -630.030 Code PREMARK
Mthd Phase Diff. H.pr 0.019 V.pr 0.027

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 173 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 152898.0 End wk 1019 sec 153077.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 153086.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 153097.0
Init counter 8 Point ID 56
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 57 DX 5018.570 DY -3531.655
Class Normal DZ -1976.585 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 166 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 154303.0 End wk 1019 sec 154481.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 154489.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 154499.0
Init counter 9 Point ID 57
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/19/1999 Time 12:21:42

GPSANT KI Antenna ht 5.272 Measuremt True

GPSREF KI Reference 108

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

INIT KI Init event Gained Week 1019
Init type On the fly seconds 156145.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE KI LINE. Name: 0005, Code: , Method: Brg-dist, Start pt: 56,

NOTE KI End pt: , Azimuth: 0.000°, Length: 1500.000ft, Grade: ?

INIT KI Init event Lost Week 1019
Init type On the fly seconds 156787.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 156833.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 58 DX 5658.215 DY -1921.622
Class Normal DZ 615.769 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 169 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 157630.0 End wk 1019 sec 157809.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 157892.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 12:51:29

INIT KI Init event Gained Week 1019
Init type Known Point seconds 157902.0
Init counter 3 Point ID 58
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type Known Point seconds 158568.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 158606.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type On the fly seconds 159513.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 159553.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 13:22:43

GPSVEC TP Point ID 59 DX 1968.646 DY -366.612
Class Normal DZ 623.655 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.028

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 170 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 159597.0 End wk 1019 sec 159775.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 159782.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 159793.0
Init counter 7 Point ID 59
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 60 DX -1815.229 DY 1093.083
Class Normal DZ 487.600 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.032

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 166 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 161261.0 End wk 1019 sec 161439.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 161456.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 161467.0
Init counter 8 Point ID 60
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/19/1999 Time 14:14:42

GPSVEC TP Point ID 61 DX -1540.423 DY -232.320
Class Normal DZ -1226.585 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 162717.0 End wk 1019 sec 162894.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 162901.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 162917.0
Init counter 9 Point ID 61
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 62 DX -19.890 DY -229.988
Class Normal DZ -351.077 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.028

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 164132.0 End wk 1019 sec 164307.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 164318.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 164330.0
Init counter 10 Point ID 62
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/20/1999 Time 06:18:03

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 4.928 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 4.928 Measuremt Uncorrected

GPSREF KI Reference 100

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/20/1999 Time 06:24:51

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS SI Point ID 100 Lat 33°43'32.39094"N Lng 112°07'08.51535"W
Class Check Hgt 1372.500 Code STA SKUNK
Mthd User Input H.pr <null> V.pr <null>

GPSANT KI Antenna ht 4.892 Measuremt True

GPSREF KI Reference 100

INIT KI Init event Gained Week 1019
Init type On the fly seconds 221163.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GRDPOS KI Point ID 1016CP Nrth 1012491.224 East 636522.816
Class Normal Elv 1624.694 Code <no text>
Mthd User Input

GRDPOS KI Point ID 1017CP Nrth 1012657.509 East 638363.896
Class Normal Elv 1629.332 Code <no text>
Mthd User Input

GRDPOS KI Point ID 1023CP Nrth 1002183.990 East 639070.207
Class Normal Elv 1543.122 Code <no text>
Mthd User Input

GRDPOS KI Point ID 1024CP Nrth 998924.225 East 639697.535
Class Normal Elv 1516.185 Code <no text>
Mthd User Input

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

NOTE TS Time Date 07/20/1999 Time 06:55:01

GPSVEC SO Point ID 107B DX 994.575 DY 11566.362
Class Stake out DZ 16879.099 Code CK SHOT PT#107 7
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

FCODE SO Code CK SHOT PT#107 7/20/99

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 165 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 222722.0 End wk 1019 sec 222901.0

POINT DGN SO
Name 107 To the Point

PT POLAR D SO
Azmth 6°58'08.533" H.dist 0.053
V.dist 0.059

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 222920.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 222933.0
Init counter 2 Point ID 107
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 1016 DX 2473.661 DY 11371.014
Class Stake out DZ 17441.523 Code 1016CP
Mthd Phase Diff. H.pr 0.015 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 151 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 223761.0 End wk 1019 sec 223939.0

POINT DGN SO
Name 1016CP To the Point

PT POLAR D SO
Azmth 214°49'19.178" H.dist 2.245
V.dist -0.155

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 223957.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 223968.0
Init counter 3 Point ID 1016
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 07:28:45

GPSVEC SO Point ID 1017 DX 4213.354 DY 10761.636
Class Stake out DZ 17585.402 Code 1017CP
Mthd Phase Diff. H.pr 0.017 V.pr 0.028

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 164 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 224706.0 End wk 1019 sec 224884.0

POINT DGN SO
Name 1017CP To the Point

PT POLAR D SO
Azmth 215°57'05.588" H.dist 2.264
V.dist -0.140

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 224947.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 224959.0
Init counter 4 Point ID 1017
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 226177.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

KI Init event Gained Week 1019
Init type On the fly seconds 226207.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 108B DX 8689.847 DY 6123.169
Class Stake out DZ 13607.480 Code CK SHOT PT#108 7
Mthd Phase Diff. H.pr 0.019 V.pr 0.027

F-CODE SO Code CK SHOT PT#108 7/20/99

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 165 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 226246.0 End wk 1019 sec 226424.0

POINT DGN SO
Name 108 To the Point

PT POLAR D SO
Azmth 18°16'49.285" H.dist 0.038
V.dist 0.041

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 226442.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 226455.0
Init counter 6 Point ID 108B
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 08:05:45

GPSVEC SO Point ID 562 DX 8670.409 DY 5894.336
Class Stake out DZ 13255.577 Code 62
Mthd Phase Diff. H.pr 0.020 V.pr 0.027

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 171 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 226975.0 End wk 1019 sec 227154.0

POINT DGN SO
Name 62 To the Point

POLAR D SO
Azmth 39°24'35.379" H.dist 0.043
V.dist 0.038

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 227164.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 227176.0
Init counter 7 Point ID 562
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type Known Point seconds 227438.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

KI Init event Gained Week 1019
Init type On the fly seconds 227569.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 561 DX 7149.898 DY 5892.047
Class Stake out DZ 12380.045 Code 61
Mthd Phase Diff. H.pr 0.018 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 227841.0 End wk 1019 sec 228019.0

POINT DGN SO
Name 61 To the Point

PT POLAR D SO
Azmth 41°05'04.248" H.dist 0.036
V.dist 0.090

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 228244.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 228255.0
Init counter 9 Point ID 561
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 08:43:11

GPSVEC SO Point ID 560 DX 6875.056 DY 7217.413
Class Stake out DZ 14094.218 Code 60
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 229216.0 End wk 1019 sec 229395.0

POINT DGN SO
Name 60 To the Point

PT POLAR D SO
Azmth 33°52'22.41" H.dist 0.076
V.dist 0.057

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 229422.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 229446.0
Init counter 10 Point ID 560
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 559 DX 10658.908 DY 5757.646
Class Stake out DZ 14230.317 Code 59
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 170 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 230328.0 End wk 1019 sec 230505.0

POINT DGN SO
Name 59 To the Point

PT POLAR D SO
Azmth 28°26'03.035" H.dist 0.077
V.dist -0.030

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 230610.0
Init counter 10 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 230623.0
Init counter 11 Point ID 559
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 09:17:46

GPSVEC SO Point ID 558 DX 14348.519 DY 4202.693
Class Stake out DZ 14222.411 Code 58
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 161 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 231225.0 End wk 1019 sec 231403.0

POINT DGN SO
Name 58 To the Point

PT POLAR D SO
Azmth 22°30'10.227" H.dist 0.051
V.dist 0.038

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 231489.0
Init counter 11 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 231503.0
Init counter 12 Point ID 558
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/20/1999 Time 09:19:50

GPSANT KI Antenna ht 4.892 Measuremt True

GPSREF KI Reference 100

INIT KI Init event Gained Week 1019
Init type On the fly seconds 231631.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type On the fly seconds 232079.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 232201.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSQC1 NM Min SVs 9 PDOP max 0.2
Total GPS pos 172 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 233325.0 End wk 1019 sec 233509.0

POINT DGN SO
Name 56 To the Point

PT POLAR D SO
Azmth 66°11'23.662" H.dist 0.026
V.dist 0.010

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 233555.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 233567.0
Init counter 4 Point ID 556
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 557 DX 13708.878 DY 2592.695
Class Stake out DZ 11630.024 Code 57
Mthd Phase Diff. H.pr 0.015 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 132 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 234213.0 End wk 1019 sec 234391.0

POINT DGN SO
Name 57 To the Point

PT POLAR D SO
Azmth 28°02'03.649" H.dist 0.062
V.dist 0.085

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 234405.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 234423.0
Init counter 5 Point ID 557
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 10:31:15

GPSVEC SO Point ID 554 DX 4524.101 DY 6029.958
Class Stake out DZ 11073.236 Code 54
Mthd Phase Diff. H.pr 0.016 V.pr 0.030

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 171 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 235705.0 End wk 1019 sec 235882.0

POINT DGN SO
Name 54 To the Point

PT POLAR D SO
Azmth 23°09'14.28" H.dist 0.054
V.dist 0.056

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 235896.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 235908.0
Init counter 6 Point ID 554
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 1023 DX 2721.767 DY 5161.200
Class Stake out DZ 8830.629 Code 1023CP
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.1
Total GPS pos 169 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 236468.0 End wk 1019 sec 236646.0

POINT DGN SO
Name 1023CP To the Point

PT POLAR D SO
Azmth 213°19'35.371" H.dist 2.310
V.dist -0.098

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 236711.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 236727.0
Init counter 7 Point ID 1023
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 553 DX 5682.021 DY 3886.975
Class Stake out DZ 8763.172 Code 53
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

SQC1 NM Min SVs 7 PDOP max 0.1
Total GPS pos 157 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 237177.0 End wk 1019 sec 237355.0

POINT DGN SO
Name 53 To the Point

PT POLAR D SO
Azmth 28°15'49.831" H.dist 0.056
V.dist 0.113

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 237372.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 237384.0
Init counter 8 Point ID 553
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 11:04:25

GPSVEC SO Point ID 552 DX 4267.985 DY 2131.386
Class Stake out DZ 5479.156 Code 52
Mthd Phase Diff. H.pr 0.020 V.pr 0.028

GPSQC1 NM Min SVs 7 PDOP max 0.1
Total GPS pos 174 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 237694.0 End wk 1019 sec 237872.0

POINT DGN SO
Name 52 To the Point

PT POLAR D SO
Azmth 69°54'26.353" H.dist 0.052
V.dist 0.128

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 237886.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 237901.0
Init counter 9 Point ID 552
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 551 DX 3817.088 DY 3845.070
Class Stake out DZ 7596.875 Code 51
Mthd Phase Diff. H.pr 0.023 V.pr 0.033

GPSQC1 NM Min SVs 5 PDOP max 0.2
Total GPS pos 173 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 238338.0 End wk 1019 sec 238516.0

POINT DGN SO
Name 51 To the Point

PT POLAR D SO
Azmth 39°37'13.059" H.dist 0.073
V.dist 0.073

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 238538.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 238551.0
Init counter 10 Point ID 551
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/20/1999 Time 11:40:00

GPSVEC SO Point ID 1024A DX 2635.682 DY 3265.932
Class Stake out DZ 6105.821 Code 1024CP
Mthd Phase Diff. H.pr 0.018 V.pr 0.027

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 239824.0 End wk 1019 sec 240002.0

POINT DGN SO
Name 1024CP To the Point

PT POLAR D SO
Azmth 214°24'32.163" H.dist 2.340
V.dist -0.110

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 240020.0
Init counter 10 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 240034.0
Init counter 11 Point ID 1024A
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SVEC SO Point ID 550 DX 1818.531 DY 3886.960
Class Stake out DZ 6503.841 Code 50
Mthd Phase Diff. H.pr 0.019 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 174 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 240964.0 End wk 1019 sec 241144.0

POINT DGN SO
Name 50 To the Point

PT POLAR D SO
Azmth 352°19'28.944" H.dist 0.045
V.dist 0.074

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 241157.0
Init counter 11 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 241167.0
Init counter 12 Point ID 550
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS KI Point ID ASL6 Lat 33°46'09.62"N Lng 112°07'55.77"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL12 Lat 33°47'53.71"N Lng 112°07'50.6"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL14 Lat 33°49'03.94"N Lng 112°07'34.48"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL24 Lat 33°52'37.48"N Lng 112°05'20.91"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL25 Lat 33°53'09.84"N Lng 112°04'42.29"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL26 Lat 33°54'02.11"N Lng 112°05'32.27"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL27 Lat 33°54'02.12"N Lng 112°04'09.9"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL28 Lat 33°54'54.38"N Lng 112°04'57.51"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL29 Lat 33°55'46.9"N Lng 112°05'27.27"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL30 Lat 33°55'46.42"N Lng 112°04'12.62"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL31 Lat 33°56'35.45"N Lng 112°05'03.79"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL32 Lat 33°57'18.76"N Lng 112°04'50.13"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL33 Lat 33°57'13.29"N Lng 112°04'01.05"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL1 Lat 33°44'31.44"N Lng 112°07'59.88"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL2 Lat 33°44'31.61"N Lng 112°06'29.78"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL3 Lat 33°45'17.3"N Lng 112°07'01.13"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

SPOS KI Point ID ASL4 Lat 33°45'42.66"N Lng 112°06'30.6"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL5 Lat 33°45'46.84"N Lng 112°04'44.98"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL7 Lat 33°46'08.79"N Lng 112°06'31.21"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL8 Lat 33°46'21.2"N Lng 112°05'41.07"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL9 Lat 33°46'44.37"N Lng 112°06'29.15"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL10 Lat 33°46'49.31"N Lng 112°04'57.75"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL11 Lat 33°47'01.3"N Lng 112°07'02.39"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL13 Lat 33°47'53.8"N Lng 112°06'40.16"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL15 Lat 33°49'22.89"N Lng 112°06'32.76"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL16 Lat 33°49'39.07"N Lng 112°07'03.05"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL17 Lat 33°49'41.29"N Lng 112°05'13.8"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL20 Lat 33°50'33.05"N Lng 112°04'58.37"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL19 Lat 33°50'33.31"N Lng 112°06'00.72"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

NOTE TS Time Date 07/21/1999 Time 08:32:57

SPOS KI Point ID ASL18 Lat 33°50'31.58"N Lng 112°07'02.79"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL21 Lat 33°51'25.81"N Lng 112°04'58.08"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL22 Lat 33°52'16.08"N Lng 112°06'00.47"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

GPSPOS KI Point ID ASL23 Lat 33°52'17.58"N Lng 112°04'37.01"W
Class Normal Hgt 1900.000 Code <no text>
Mthd User Input H.pr <null> V.pr <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/22/1999 Time 06:36:59

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.230 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SANT KI Antenna ht 5.230 Measuremt Uncorrected

GPSREF KI Reference 104

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/22/1999 Time 06:38:18

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS SI Point ID 104 Lat 33°50'30.66177"N Lng 112°06'04.00908"W
Class Check Hgt 1754.843 Code SPIKE BASE PT
Mthd User Input H.pr <null> V.pr <null>

GPSANT KI Antenna ht 5.197 Measuremt True

GPSREF KI Reference 104

INIT KI Init event Gained Week 1019
Init type On the fly seconds 394793.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

NOTE TS Time Date 07/22/1999 Time 07:08:46

GPSVEC SO Point ID 107C DX -12780.219 DY -7872.832
Class Stake out DZ -18477.762 Code CK SHOT PT#107 7
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

F ODE SO Code CK SHOT PT#107 7/22/99

C. SQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 396348.0 End wk 1019 sec 396526.0

POINT DGN SO
Name 107 To the Point

PT POLAR D SO
Azmth 313°23'34.622" H.dist 0.026
V.dist 0.154

GPSVEC SO Point ID 17 DX 2875.942 DY -4136.534
Class Stake out DZ -4156.325 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

F-CODE SO Code PREMARK 30" CIRCLE

C SQC1 NM Min SVs 8 PDOP max 0.1
Total GPS pos 179 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 397990.0 End wk 1019 sec 398168.0

POINT DGN SO
Name ASL17 To the Point

PT POLAR D SO
Azmth 114°45'31.349" H.dist 16.731
V.dist 175.838

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 398184.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 398197.0
Init counter 2 Point ID 17
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/22/1999 Time 07:58:23

GPSVEC SO Point ID 20 DX 5182.830 DY -1942.924
Class Stake out DZ 257.811 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.020 V.pr 0.027

F-CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 399333.0 End wk 1019 sec 399511.0

POINT DGN SO
Name ASL20 To the Point

PT POLAR D SO
Azmth 175°54'48.858" H.dist 55.800
V.dist 126.873

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 399523.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 399534.0
Init counter 3 Point ID 20
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 19 DX 332.446 DY 17.476
Class Stake out DZ 224.608 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.020 V.pr 0.027

F-CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 399929.0 End wk 1019 sec 400107.0

POINT DGN SO
Name ASL19 To the Point

F POLAR D SO
Azmth 276°02'09.578" H.dist 24.117
V.dist 138.976

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 400118.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 400127.0
Init counter 4 Point ID 19
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GRDPOS KI Point ID 1001CP Nrth 1034170.290 East 646300.454
Class Normal Elv 1852.440 Code PREMARK 30" CIRC
Mthd User Input

F-CODE KI Code PREMARK 30" CIRCLE

, r KI Init event Lost(RMS) Week 1019
Init type Known Point seconds 400241.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 400322.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GRDPOS KI Point ID 1002CP Nrth 1033398.326 East 645626.229
Class Normal Elv 1845.030 Code CP
Mthd User Input

NOTE TS Time Date 07/22/1999 Time 08:33:32

GPSVEC SO Point ID 1002 DX 1411.804 DY -861.748
Class Stake out DZ -403.995 Code 1002CP
Mthd Phase Diff. H.pr 0.018 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 401436.0 End wk 1019 sec 401614.0

POINT DGN SO
Name 1002CP To the Point

PT POLAR D SO
Azmth 217°29'56.669" H.dist 2.056
V.dist -0.220

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 401644.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 401656.0
Init counter 6 Point ID 1002
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 18 DX -4572.559 DY 1943.236
Class Stake out DZ 59.622 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

F-CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 402168.0 End wk 1019 sec 402346.0

POINT DGN SO
Name ASL18 To the Point

PT POLAR D SO
Azmth 95°38'16.629" H.dist 9.176
V.dist 179.429

I KI Init event User cancelled init Week 1019
Init type Known Point seconds 402361.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 402372.0
Init counter 7 Point ID 18
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 16 DX -5684.145 DY -762.638
Class Stake out DZ -4354.188 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

F-CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 402823.0 End wk 1019 sec 403002.0

POINT DGN SO
Name ASL16 To the Point

PT POLAR D SO
Azmth 187°17'53.968" H.dist 14.336
V.dist 207.172

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 403024.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 403038.0
Init counter 8 Point ID 16
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

QUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/22/1999 Time 09:13:46

NOTE TS Time Date 07/22/1999 Time 09:13:46

GPSANT KI Antenna ht 5.197 Measuremt True

GPSREF KI Reference 104

INIT KI Init event Gained Week 1019
Init type On the fly seconds 404088.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

GPSVEC TP Point ID 110 DX 11400.887 DY -3503.063
Class Normal DZ 1819.392 Code CK BM 5HRP
Mthd Phase Diff. H.pr 0.015 V.pr 0.030

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 404521.0 End wk 1019 sec 404700.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 404708.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 404719.0
Init counter 2 Point ID 110
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

I' T KI Init event High RMS Week 1019
Init type Known Point seconds 405336.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type Known Point seconds 405340.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type Known Point seconds 405343.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type Known Point seconds 405355.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 23 DX 9031.576 DY 2757.816
Class Stake out DZ 9084.993 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.019 V.pr 0.035

F-CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 179 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 405387.0 End wk 1019 sec 405565.0

POINT DGN SO
Name ASL23 To the Point

PT POLAR D SO
Azmth 173°16'12.899" H.dist 51.747
V.dist 27.790

T KI Init event User cancelled init Week 1019
Init type Known Point seconds 405577.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 405589.0
Init counter 3 Point ID 23
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type Known Point seconds 405615.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GRDPOS KI Point ID 2013CP Nrth 1044698.829 East 649729.520
Class Normal Elv 1966.530 Code <no text>
Mthd User Input

INIT KI Init event Gained Week 1019
Init type On the fly seconds 405815.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/22/1999 Time 09:53:29

GPSVEC SO Point ID 2013 DX 7528.217 DY 3346.485
Class Stake out DZ 9055.791 Code 2013CP
Mthd Phase Diff. H.pr 0.017 V.pr 0.030

GPSQC1 NM Min SVs 9 PDOP max 0.2
Total GPS pos 178 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 406234.0 End wk 1019 sec 406412.0

POINT DGN SO
Name 2013CP To the Point

PT POLAR D SO
Azmth 213°32'17.894" H.dist 2.053
V.dist -0.048

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 406433.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 406465.0
Init counter 6 Point ID 2013
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type Known Point seconds 406805.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 407093.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 407155.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 407412.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 407703.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 407788.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/22/1999 Time 10:29:12

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INIT   KI  Init event   User cancelled init Week        1019
       Init type    On the fly       seconds      408566.0
       Init counter  9               Point ID     <no text>
       Survey type   Real Time        Plate H. Dist <null>
       Plate V. Dist <null>          Plate azimuth <null>

INIT   KI  Init event   Gained          Week        1019
       Init type    Known Point      seconds      408605.0
       Init counter  10              Point ID     103
       Survey type   Real Time        Plate H. Dist <null>
       Plate V. Dist <null>          Plate azimuth <null>

GPSVEC  SO  Point ID 103A      DX   12404.514       DY   1413.919
       Class Stake out     DZ   9167.526        Code CK SHOT PT#103 7
       Mthd Phase Diff.    H.pr 0.017           V.pr 0.029

F-CODE  SO  Code CK SHOT PT#103 7/22/99

GPSQC1  NM  Min SVs       7               PDOP max  0.2
       Total GPS pos  179             HDOP max  0.1
       Monitor status Yes             VDOP max  0.1
       Horizontal SD  0.000           Vert SD   0.000
       Start wk 1019 sec 408695.0      End wk 1019   sec 408873.0

POINT DGN SO
       Name     103               To the Point

PT POLAR D SO
       Azmth    187°53'13.312"       H.dist    0.024
       V.dist   0.029

GPSVEC  SO  Point ID 101A      DX   9810.808        DY   10015.373
       Class Stake out     DZ   19789.754       Code CK SHOT PT#101 7
       Mthd Phase Diff.    H.pr 0.018           V.pr 0.029

F-CODE  SO  Code CK SHOT PT#101 7/22/99

GPSQC1  NM  Min SVs       7               PDOP max  0.1
       Total GPS pos  179             HDOP max  0.1
       Monitor status Yes             VDOP max  0.1
       Horizontal SD  0.000           Vert SD   0.000
       Start wk 1019 sec 409309.0      End wk 1019   sec 409487.0

POINT DGN SO
       Name     101               To the Point
```

PT POLAR D SO
Azmth 214°48'48.071" H.dist 0.045
V.dist -0.074

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 409499.0
Init counter 10 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 409526.0
Init counter 11 Point ID 101
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/23/1999 Time 06:27:21

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.355 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.355 Measuremt Uncorrected

GREF KI Reference 108

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/23/1999 Time 06:28:24

GPSANT KI Antenna ht 5.322 Measuremt True

GPSREF KI Reference 108

INIT KI Init event Gained Week 1019
Init type On the fly seconds 480565.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

GPSVEC SO Point ID 59CK DX 1968.674 DY -366.533
Class Stake out DZ 623.594 Code CK SHOT PT#59
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 174 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 481101.0 End wk 1019 sec 481279.0

POINT DGN SO
Name 59 To the Point

F POLAR D SO
Azmth 45°57'39.329" H.dist 0.005
V.dist 0.054

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 481296.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 481308.0
Init counter 2 Point ID 59
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 07:08:11

GPSVEC SO Point ID 10 DX 5673.752 DY -304.004
Class Stake out DZ 2936.624 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.028

SQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 177 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 482719.0 End wk 1019 sec 482896.0

POINT DGN SO
Name ASL10 To the Point

PT POLAR D SO
Azmth 333°32'10.418" H.dist 171.220
V.dist 314.698

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 482916.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 482928.0
Init counter 3 Point ID 10
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 7 DX -2510.194 DY 760.875
Class Stake out DZ -386.846 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 166 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 484219.0 End wk 1019 sec 484397.0

POINT DGN SO
Name ASL7 To the Point

PT POLAR D SO
Azmth 136°34'19.933" H.dist 24.380
V.dist 423.582

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 484413.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 484423.0
Init counter 5 Point ID 7
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 07:51:21

GPSVEC SO Point ID 9 DX -1456.859 DY 2481.112
Class Stake out DZ 2661.149 Code PREMARK
Mthd Phase Diff. H.pr 0.019 V.pr 0.027

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 485309.0 End wk 1019 sec 485487.0

POINT DGN SO
Name ASL9 To the Point

PT POLAR D SO
Azmth 246°17'22.771" H.dist 150.580
V.dist 383.456

T KI Init event User cancelled init Week 1019
Init type Known Point seconds 485504.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 485517.0
Init counter 6 Point ID 9
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 11 DX -3853.846 DY 4456.786
Class Stake out DZ 4083.818 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 486538.0 End wk 1019 sec 486716.0

NT DGN SO
Name ASL11 To the Point

PT POLAR D SO
Azmth 156°45'01.753" H.dist 52.084
V.dist 363.784

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 486829.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 486847.0
Init counter 7 Point ID 11
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 486873.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 486883.0
Init counter 8 Point ID 11
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 511 DX -3853.870 DY 4456.755
Class Normal DZ 4083.856 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 5 PDOP max 0.2
Total GPS pos 173 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 486901.0 End wk 1019 sec 487079.0

NOTE TS Time Date 07/23/1999 Time 08:40:57

GPSVEC TP Point ID 13 DX -1008.841 DY 6349.936
Class Normal DZ 8485.641 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 488290.0 End wk 1019 sec 488469.0

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 488484.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 488496.0
Init counter 9 Point ID 13
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 15 DX 1431.654 DY 10736.166
Class Stake out DZ 16010.615 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.028

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 489961.0 End wk 1019 sec 490139.0

POINT DGN SO
Name ASL15 To the Point

PT POLAR D SO
Azmth 315°42'46.793" H.dist 16.660
V.dist 215.725

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 490152.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 490162.0
Init counter 10 Point ID 15
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/23/1999 Time 09:24:00

NOTE TS Time Date 07/23/1999 Time 09:24:00

GPSANT KI Antenna ht 5.322 Measuremt True

GPSREF KI Reference 108

NIT KI Init event Gained Week 1019
Init type On the fly seconds 491106.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491266.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491266.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491332.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491333.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491334.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491336.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NIT KI Init event High RMS Week 1019
Init type On the fly seconds 491344.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491346.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491377.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491378.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491387.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491388.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491417.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491419.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491433.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491433.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491464.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491465.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491466.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491468.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491475.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491475.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491478.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491479.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491494.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491495.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491503.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491504.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491505.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491506.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491514.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491515.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event High RMS Week 1019
Init type On the fly seconds 491536.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 491547.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Good RMS Week 1019
Init type On the fly seconds 491836.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 491853.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 491858.0
Init counter 3 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 491891.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 491897.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

IT KI Init event Gained Week 1019
Init type On the fly seconds 491963.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost(RMS) Week 1019
Init type On the fly seconds 491969.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 15 PDOP mask 6.0

INIT KI Init event Gained Week 1019
Init type On the fly seconds 492632.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 14 DX -3779.949 DY 11698.418
Class Normal DZ 14436.751 Code PREMARK
Mthd Phase Diff. H.pr 0.014 V.pr 0.031

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 170 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 492656.0 End wk 1019 sec 492835.0

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 492845.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 09:54:03

INIT KI Init event Gained Week 1019
Init type Known Point seconds 492854.0
Init counter 7 Point ID 14
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 12 DX -6519.722 DY 8599.206
Class Stake out DZ 8397.355 Code PREMARK
Mthd Phase Diff. H.pr 0.014 V.pr 0.030

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 179 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 493636.0 End wk 1019 sec 493814.0

POINT DGN SO
Name ASL12 To the Point

PT POLAR D SO
Azmth 348°13'34.503" H.dist 91.716
V.dist 319.520

INIT KI Init event User cancelled init Week 1019
Init type Known Point seconds 493879.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 493889.0
Init counter 8 Point ID 12
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type Known Point seconds 493925.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 10:25:07

NIT KI Init event Gained Week 1019
Init type On the fly seconds 494719.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 6 DX -9040.122 DY 3428.793
Class Stake out DZ -340.292 Code PREMARK
Mthd Phase Diff. H.pr 0.019 V.pr 0.029

PSQC1 NM Min SVs 7 PDOP max 0.1
Total GPS pos 173 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 495832.0 End wk 1019 sec 496012.0

POINT DGN SO
Name ASL6 To the Point

PT POLAR D SO
Azmth 286°46'18.784" H.dist 71.478
V.dist 408.248

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 496023.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 496033.0
Init counter 11 Point ID 6
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type Known Point seconds 496259.0
Init counter 11 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 496362.0
Init counter 12 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 11:15:47

GPSVEC SO Point ID 1 DX -11559.230 DY -1486.916
Class Stake out DZ -8733.982 Code PREMARK
Mthd Phase Diff. H.pr 0.019 V.pr 0.027

PSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 145 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 497569.0 End wk 1019 sec 497748.0

POINT DGN SO
Name ASL1 To the Point

PT POLAR D SO
Azmth 26°45'27.432" H.dist 147.082
V.dist 497.268

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 497765.0
Init counter 12 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 497776.0
Init counter 13 Point ID 1
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type Known Point seconds 498360.0
Init counter 13 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 498737.0
Init counter 14 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type On the fly seconds 498958.0
Init counter 14 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type On the fly seconds 499013.0
Init counter 15 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1019
Init type On the fly seconds 499450.0
Init counter 15 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/23/1999 Time 11:45:51

T KI Init event Gained Week 1019
Init type On the fly seconds 499563.0
Init counter 16 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 3 DX -5956.885 DY -975.200
Class Stake out DZ -4787.045 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.028

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 171 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1019 sec 500591.0 End wk 1019 sec 500769.0

POINT DGN SO
Name ASL3 To the Point

PT POLAR D SO
Azmth 31°09'04.333" H.dist 58.507
V.dist 453.191

INIT KI Init event User cancelled init Week 1019
Init type On the fly seconds 500822.0
Init counter 16 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1019
Init type Known Point seconds 500835.0
Init counter 17 Point ID 3
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SL EY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/26/1999 Time 09:48:23

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/26/1999 Time 09:49:13

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/27/1999 Time 05:56:31

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.000 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.000 Measuremt Uncorrected

GPSREF KI Reference 103

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/27/1999 Time 05:59:31

UIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/27/1999 Time 06:02:02

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS SI Point ID 103 Lat 33°52'18.88705"N Lng 112°03'54.02803"W
Class Check Hgt 1899.987 Code 4HRP BM
Mthd User Input H.pr <null> V.pr <null>

GPSANT KI Antenna ht 4.964 Measuremt True

GPSREF KI Reference 103

IN KI Init event Gained Week 1020
Init type On the fly seconds 219775.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

INIT KI Init event Lost Week 1020
Init type On the fly seconds 220171.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 220433.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC SO Point ID 101B DX -2594.215 DY 8600.094
Class Stake out DZ 10623.178 Code CK SHOT PT#101 7
Mthd Phase Diff. H.pr 0.018 V.pr 0.029

F-CODE SO Code CK SHOT PT#101 7/27/99

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 172 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 220511.0 End wk 1020 sec 220689.0

POINT DGN SO
Name 101 To the Point

PT POLAR D SO
Azmth 276°44'55.685" H.dist 0.062
V.dist -0.034

NOTE TS Time Date 07/27/1999 Time 06:46:34

GPSVEC SO Point ID 22 DX -10057.792 DY 3302.144
Class Stake out DZ -882.318 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.030

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 149 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 222218.0 End wk 1020 sec 222396.0

POINT DGN SO
Name ASL22 To the Point

PT POLAR D SO
Azmth 353°18'08.617" H.dist 856.776
V.dist -105.309

INIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 222418.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 222429.0
Init counter 4 Point ID 22
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/27/1999 Time 07:18:03

GPSVEC SO Point ID 29 DX -2653.815 DY 13428.822
Class Stake out DZ 17618.658 Code PREMARK 30" CIRC
Mthd Phase Diff. H.pr 0.020 V.pr 0.030

CODE SO Code PREMARK 30" CIRCLE

GPSQC1 NM Min SVs 7 PDOP max 0.2
Total GPS pos 172 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 224114.0 End wk 1020 sec 224292.0

POINT DGN SO
Name ASL29 To the Point

PT POLAR D SO
Azmth 273°33'40.661" H.dist 354.302
V.dist -324.257

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 224304.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 224313.0
Init counter 5 Point ID 29
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

```
INIT   KI  Init event   Lost          Week       1020
       Init type    Known Point      seconds     225632.0
       Init counter 5              Point ID    <no text>
       Survey type  Real Time        Plate H. Dist <null>
       Plate V. Dist <null>         Plate azimuth <null>

INIT   KI  Init event   Gained        Week       1020
       Init type    On the fly       seconds     225686.0
       Init counter 6              Point ID    <no text>
       Survey type  Real Time        Plate H. Dist <null>
       Plate V. Dist <null>         Plate azimuth <null>

INIT   KI  Init event   Lost          Week       1020
       Init type    On the fly       seconds     225695.0
       Init counter 6              Point ID    <no text>
       Survey type  Real Time        Plate H. Dist <null>
       Plate V. Dist <null>         Plate azimuth <null>

INIT   KI  Init event   Failed        Week       1020
       Init type    Known Point      seconds     225741.0
       Init counter 6              Point ID    29
       Survey type  Real Time        Plate H. Dist <null>
       Plate V. Dist <null>         Plate azimuth <null>

INIT   KI  Init event   Gained        Week       1020
       Init type    Known Point      seconds     225753.0
       Init counter 7              Point ID    102
       Survey type  Real Time        Plate H. Dist <null>
       Plate V. Dist <null>         Plate azimuth <null>

GPSVEC  SO  Point ID 102A      DX  -3713.981      DY  11511.838
       Class Stake out     DZ  14083.576      Code CSHOT PT#102 7/2
       Mthd Phase Diff.    H.pr 0.022         V.pr 0.029

=-CODE  SO  Code CSHOT PT#102 7/27/99

GPSQC1  NM  Min SVs      7            PDOP max  0.1
       Total GPS pos  176           HDOP max  0.1
       Monitor status Yes           VDOP max  0.1
       Horizontal SD  0.000         Vert SD   0.000
       Start wk 1020 sec 225795.0     End wk 1020   sec 225973.0

'OINT DGN SO
       Name     102                To the Point

'T POLAR D SO
       Azmth    358°38'03.327"     H.dist    0.051
       V.dist   -0.086
```

NOTE TS Time Date 07/27/1999 Time 07:50:37

T KI Init event Lost(RMS) Week 1020
Init type Known Point seconds 226248.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 226298.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Lost Week 1020
Init type On the fly seconds 226638.0
Init counter 8 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 226680.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 28 DX -2224.364 DY 9516.600
Class Normal DZ 12122.059 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.032

GPSQC1 NM Min SVs 5 PDOP max 0.2
Total GPS pos 175 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 226720.0 End wk 1020 sec 226898.0

INIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 226951.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 226974.0
Init counter 10 Point ID 28
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 528 DX -2224.383 DY 9516.542
Class Normal DZ 12122.153 Code PREMARK PT# 28
Mthd Phase Diff. H.pr 0.013 V.pr 0.033

GPSQC1 NM Min SVs 5 PDOP max 0.3
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.3
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 227741.0 End wk 1020 sec 227919.0

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 227950.0
Init counter 10 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 227967.0
Init counter 11 Point ID 528
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/27/1999 Time 08:21:24

INIT KI Init event Lost Week 1020
Init type Known Point seconds 228096.0
Init counter 11 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 228163.0
Init counter 12 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 26 DX -5517.562 DY 8302.851
Class Normal DZ 8782.395 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.029

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 166 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 228963.0 End wk 1020 sec 229141.0

INIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 229154.0
Init counter 12 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 229170.0
Init counter 13 Point ID 26
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/27/1999 Time 08:54:59

N E TS Time Date 07/27/1999 Time 08:54:59

GPSANT KI Antenna ht 4.964 Measuremt True

GPSREF KI Reference 103

INIT KI Init event Gained Week 1020
Init type On the fly seconds 230159.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

GPSVEC TP Point ID 27 DX -41.425 DY 6228.049
Class Normal DZ 8758.968 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.031

GPSQC1 NM Min SVs . 6 PDOP max 0.2
Total GPS pos 125 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 230175.0 End wk 1020 sec 230354.0

INIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 230368.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 230386.0
Init counter 2 Point ID 27
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 230401.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 230419.0
Init counter 4 Point ID 27
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 527 DX -41.415 DY 6228.195
Class Normal DZ 8758.903 Code PREMARK
Mthd Phase Diff. H.pr 0.017 V.pr 0.032

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 163 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 230429.0 End wk 1020 sec 230607.0

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 230614.0
Init counter 4 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 230625.0
Init counter 5 Point ID 527
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 25 DX -2699.958 DY 4169.553
Class Normal DZ 4337.255 Code PREMARK
Mthd Phase Diff. H.pr 0.016 V.pr 0.030

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 174 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 231129.0 End wk 1020 sec 231307.0

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 231318.0
Init counter 5 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 231334.0
Init counter 6 Point ID 25
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/27/1999 Time 09:28:07

GPSVEC TP Point ID 24 DX -6476.497 DY 3671.683
Class Normal DZ 1652.540 Code PREMARK
Mthd Phase Diff. H.pr 0.018 V.pr 0.033

GPSQC1 NM Min SVs 8 PDOP max 0.2
Total GPS pos 179 HDOP max 0.1
Monitor status Yes VDOP max 0.1
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 231920.0 End wk 1020 sec 232099.0

NIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 232109.0
Init counter 6 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 232124.0
Init counter 7 Point ID 24
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GPSVEC TP Point ID 21 DX -5640.122 DY -871.838
Class Normal DZ -4480.387 Code PREMARK
Mthd Phase Diff. H.pr 0.014 V.pr 0.032

GPSQC1 NM Min SVs 6 PDOP max 0.3
Total GPS pos 112 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 233208.0 End wk 1020 sec 233381.0

INIT KI Init event User cancelled init Week 1020
Init type Known Point seconds 233408.0
Init counter 7 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Failed Week 1020
Init type Known Point seconds 233476.0
Init counter 8 Point ID 21
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 233578.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NOTE TS Time Date 07/27/1999 Time 10:09:32

INIT KI Init event Lost Week 1020
Init type On the fly seconds 234583.0
Init counter 9 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

SURVEY KI Elev mask 13 PDOP mask 6.0

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

SURVEY EVENTKISurvey event Base survey started

NOTE TS Time Date 07/27/1999 Time 10:38:22

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.015 Measuremt Uncorrected

EQUIP BA Receiver 4700 Serial no 20138342
Antenna Compact L1/L2 w/Ground Plane
Method Measured to bottom of notch on ground plane
Tape adj 0.000 Serial no <no text>
Radius 0.766 V.Const 0.023

GPSANT KI Antenna ht 5.015 Measuremt Uncorrected

GPSREF KI Reference 102

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/27/1999 Time 10:39:52

GPSANT KI Antenna ht 0.000 Measuremt True

GPSPOS SI Point ID 102 Lat 33°55'05.66737"N Lng 112°05'26.17543"W
Class Check Hgt 2056.014 Code 2HRP BM
Mthd User Input H.pr <null> V.pr <null>

GPSANT KI Antenna ht 4.980 Measuremt True

GPSREF KI Reference 102

INIT KI Init event Gained Week 1020
Init type On the fly seconds 236540.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

GPSVEC TP Point ID 103C DX 1119.195 DY -2913.190
Class Normal DZ -3459.375 Code CK SHOT PT#101 7
Mthd Phase Diff. H.pr 0.020 V.pr 0.028

F-CODE TP Code CK SHOT PT#101 7/27/99

GPSQC1 NM Min SVs 5 PDOP max 0.2
Total GPS pos 176 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 236799.0 End wk 1020 sec 236976.0

NIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 236987.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

NIT KI Init event Failed Week 1020
Init type Known Point seconds 237032.0
Init counter 1 Point ID 103
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type On the fly seconds 237064.0
Init counter 2 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

SURVEY EVENTKISurvey event Rover survey started

NOTE TS Time Date 07/27/1999 Time 10:54:00

GPSANT KI Antenna ht 4.980 Measuremt True

GPSREF KI Reference 102

INIT KI Init event Gained Week 1020
Init type On the fly seconds 237299.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

GRDPOS KI Point ID 101C Nrth 1057533.346 East 649359.526
Class Normal Elv 2108.914 Code CK SHOT PT#103 7
Mthd User Input

F-CODE KI Code CK SHOT PT#103 7/27/99

EQUIP NM Receiver 4700 Serial no 20137341
Antenna Compact L1/L2
Method Measured to bottom of antenna
Tape adj 0.000 Serial no <no text>
Radius 0.000 V.Const 0.205

GPSANT KI Antenna ht 6.562 Measuremt Uncorrected

NOTE TS Time Date 07/27/1999 Time 11:09:44

GPSVEC SO Point ID 30 DX 5777.342 DY 56.973
Class Stake out DZ 3501.869 Code PREMARK
Mthd Phase Diff. H.pr 0.023 V.pr 0.034

GPSQC1 NM Min SVs 6 PDOP max 0.2
Total GPS pos 168 HDOP max 0.1
Monitor status Yes VDOP max 0.2
Horizontal SD 0.000 Vert SD 0.000
Start wk 1020 sec 237999.0 End wk 1020 sec 238177.0

POINT DGN SO
Name ASL30 To the Point

PT POLAR D SO
Azmth 91°53'39.178" H.dist 867.320
V.dist -262.634

INIT KI Init event User cancelled init Week 1020
Init type On the fly seconds 238204.0
Init counter 1 Point ID <no text>
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

INIT KI Init event Gained Week 1020
Init type Known Point seconds 238216.0
Init counter 2 Point ID 30
Survey type Real Time Plate H. Dist <null>
Plate V. Dist <null> Plate azimuth <null>

APPENDIX C

Supplemental Topography Points at CAP Canal

APPENDIX C

Supplemental Topography Points at CAP Canal

Project name : C:\TSOffice\Projects\SKUNKALL
Description : Metric Template
Coordinate System : US State Plane 1983
Zone : Arizona Central 0202
Datum : NAD 1983 (Conus)
Date printed : 10/20/99 12:51:53 PM

Coordinate units: International feet
Elevation units: International feet

Point listing

Name	Northing	Easting	Elevation	Feature code
200	1024648.877	638994.323	1741.459	CL RD
201	1024600.391	638994.188	1740.666	CL RD
202	1024551.595	638994.010	1739.748	CL RD
203	1024503.286	638994.262	1739.281	CL RD
204	1024454.237	638993.876	1739.070	CL RD
205	1024404.244	638994.051	1738.717	CL RD
206	1024353.704	638993.892	1738.155	CL RD
207	1024305.006	638993.645	1738.117	CL RD
208	1024256.244	638992.106	1738.236	CL RD
209	1024205.681	638987.868	1738.316	CL RD
210	1024373.576	638964.321	1731.895	IE 66" CMP
211	1024391.413	638963.082	1731.681	IE 66" CMP
212	1024400.614	638956.672	1731.479	IE 66" CMP
213	1024353.196	638979.008	1737.672	EP
214	1024355.814	638974.343	1737.468	EG
215	1024358.698	638969.768	1737.682	TOP BANK
216	1024361.896	638964.073	1733.616	TOE
217	1024365.318	638958.553	1732.592	EG
218	1024371.398	638949.734	1732.683	EG
219	1024377.020	638942.741	1731.851	EG
220	1024379.679	638937.973	1732.239	TOE
221	1024384.270	638930.166	1735.312	TOP BANK
222	1024394.491	638915.361	1735.972	EG
223	1024406.467	638897.355	1736.737	EG
224	1024413.511	638881.481	1737.742	EG
225	1024398.140	638967.067	1738.653	EG
226	1024484.747	639018.190	1739.058	EG
227	1024483.964	639028.587	1732.492	IE 66" CMP
228	1024495.781	639024.302	1731.991	IE 66" CMP
229	1024512.174	639022.621	1732.095	IE 66" CMP
230	1024542.286	639008.892	1739.456	EP
231	1024535.202	639021.441	1738.972	TOP BANK
232	1024530.224	639029.915	1733.717	TOE
233	1024527.873	639033.364	1733.336	EG
234	1024522.027	639042.152	1732.887	EG
235	1024518.372	639049.224	1734.650	TOE
236	1024514.910	639054.492	1737.600	TOP BANK
237	1024505.000	639071.862	1737.830	EG
238	1024488.829	639101.608	1739.087	EG
239	1023478.939	638482.809	1729.697	CL RD
240	1023457.070	638438.923	1729.324	CL RD
241	1023437.051	638393.022	1728.949	CL RD
242	1023420.333	638347.018	1728.944	CL RD
243	1023406.847	638300.586	1729.068	CL RD
244	1023394.941	638249.559	1728.969	CL RD
245	1023385.226	638198.918	1729.077	CL RD
246	1023378.027	638148.815	1729.056	CL RD
247	1023381.068	638241.781	1729.042	EP
248	1023371.849	638252.328	1728.355	TOP BANK
249	1023365.870	638260.019	1722.245	TOE
250	1023361.628	638264.530	1721.464	EG
251	1023352.455	638275.343	1721.041	TOE
252	1023344.900	638284.403	1726.091	TOP BANK
253	1023335.340	638295.194	1726.575	EG
254	1023316.379	638319.876	1726.631	EG
255	1023381.888	638307.511	1720.803	IE 66" CMP
256	1023377.141	638289.799	1720.827	IE 66" CMP
257	1023372.415	638273.000	1720.737	IE 66" CMP
258	1023389.474	638298.628	1729.016	EG
259	1023434.296	638337.837	1728.437	EG

260	1023445.173	638327.941	1721.686	IE 66" CMP
261	1023450.758	638343.064	1722.235	IE 66" CMP
262	1023456.771	638361.436	1721.752	IE 66" CMP
263	1023462.514	638420.217	1728.676	EP
264	1023474.415	638405.164	1728.280	EG
265	1023483.839	638392.276	1728.047	TOP BANK
266	1023491.013	638386.620	1723.457	TOE
267	1023493.512	638383.235	1722.514	EG
268	1023497.575	638377.841	1722.605	EG
269	1023502.220	638371.702	1722.286	TOE
270	1023508.842	638364.860	1727.522	TOP BANK
271	1023522.641	638348.633	1728.120	EG
272	1023529.497	638338.733	1729.610	EG
273	999532.043	637558.518	1527.108	CAP OVERCHUTE
274	999534.819	637575.165	1518.729	CAP OVERCHUTE
275	999462.122	637581.809	1518.844	CAP OVERCHUTE
276	999462.117	637581.788	1525.823	CAP OVERCHUTE
277	999415.934	637589.611	1525.756	CAP OVERCHUTE
278	999415.933	637589.613	1518.820	CAP OVERCHUTE
279	999435.869	637709.824	1518.821	CAP OVERCHUTE
280	999482.566	637703.684	1518.811	CAP OVERCHUTE
281	999554.083	637690.649	1518.766	CAP OVERCHUTE
282	999576.159	637822.104	1527.176	CAP OVERCHUTE
283	999573.214	637805.149	1518.747	CAP OVERCHUTE
284	999501.898	637822.669	1525.704	CAP OVERCHUTE
285	999501.927	637822.656	1518.776	CAP OVERCHUTE
286	999455.811	637830.217	1518.763	CAP OVERCHUTE
287	999455.803	637830.218	1525.607	CAP OVERCHUTE
288	999578.543	639720.356	1526.923	CAP OVERCHUTE
289	999567.398	639732.930	1518.519	CAP OVERCHUTE
290	999515.779	639680.969	1518.526	CAP OVERCHUTE
291	999515.781	639680.966	1525.474	CAP OVERCHUTE
292	999480.292	639650.290	1525.471	CAP OVERCHUTE
293	999480.286	639650.301	1518.480	CAP OVERCHUTE
294	999428.667	639709.637	1518.585	CAP OVERCHUTE
295	999464.218	639740.488	1518.532	CAP OVERCHUTE
296	999519.254	639788.350	1518.502	CAP OVERCHUTE
297	999460.892	639855.629	1526.927	CAP OVERCHUTE
298	999471.941	639842.821	1518.494	CAP OVERCHUTE
299	999413.312	639798.955	1525.446	CAP OVERCHUTE
300	999413.321	639798.963	1518.475	CAP OVERCHUTE
301	999378.102	639768.115	1518.493	CAP OVERCHUTE
302	999378.094	639768.119	1525.477	CAP OVERCHUTE
303	999505.506	639726.465	1518.390	CAP OVERCHUTE
304	1000950.924	640299.945	1527.155	X-SECT
305	1001047.056	640206.662	1526.576	X-SECT
306	1001052.809	640201.162	1526.478	X-SECT
307	1001072.960	640181.616	1528.357	X-SECT
308	1001108.799	640146.683	1530.130	X-SECT
309	1001144.467	640111.844	1531.862	X-SECT
310	1001216.392	640042.319	1533.615	X-SECT
311	1001287.983	639972.056	1533.867	X-SECT
312	1001325.503	639936.067	1534.395	X-SECT
313	1001406.374	639857.486	1532.319	X-SECT
314	1001478.363	639787.327	1529.842	X-SECT
315	1001507.130	639759.230	1532.266	X-SECT
316	1001508.521	639744.546	1533.995	X-SECT O/S
317	1001567.581	639701.134	1536.002	X-SECT
318	1001599.855	639669.628	1538.117	X-SECT
319	1001627.676	639642.663	1538.919	X-SECT
320	1001662.669	639608.683	1538.085	X-SECT
321	1001714.284	639558.075	1537.370	X-SECT
322	1001783.094	639491.704	1537.938	X-SECT
323	1001866.108	639410.417	1539.025	X-SECT
324	1001917.598	639360.768	1540.004	X-SECT
325	1001988.103	639292.355	1540.976	X-SECT
326	1002087.353	639195.678	1541.969	X-SECT
327	1002215.326	639071.103	1543.008	X-SECT
328	1002313.556	638975.705	1544.008	X-SECT
329	999405.133	636889.672	1523.451	CL FRONTAGE ROAD
330	999524.793	636869.097	1524.625	CL FRONTAGE ROAD

331	999630.565	636850.452	1525.469	CL FRONTAGE ROAD
332	999734.610	636831.906	1526.350	CL FRONTAGE ROAD
333	999838.651	636814.381	1527.161	CL FRONTAGE ROAD
334	999946.033	636795.733	1528.041	CL FRONTAGE ROAD
335	1000053.317	636777.212	1528.858	CL FRONTAGE ROAD
336	1000158.641	636758.615	1529.716	CL FRONTAGE ROAD
337	1000263.660	636740.560	1530.599	CL FRONTAGE ROAD
338	1000369.634	636723.230	1531.239	CL FRONTAGE ROAD
339	1000475.071	636705.820	1531.928	CL FRONTAGE ROAD
340	1000578.515	636689.123	1532.845	CL FRONTAGE ROAD