PRELIMINARY WATER QUALITY MANAGEMENT PLAN

TTM 36557 "Terracina"

City of Lake Elsinore
County of Riverside

Prepared For:

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TTM 36557, "Terracina"
City of Lake Elsinore, County of Riverside

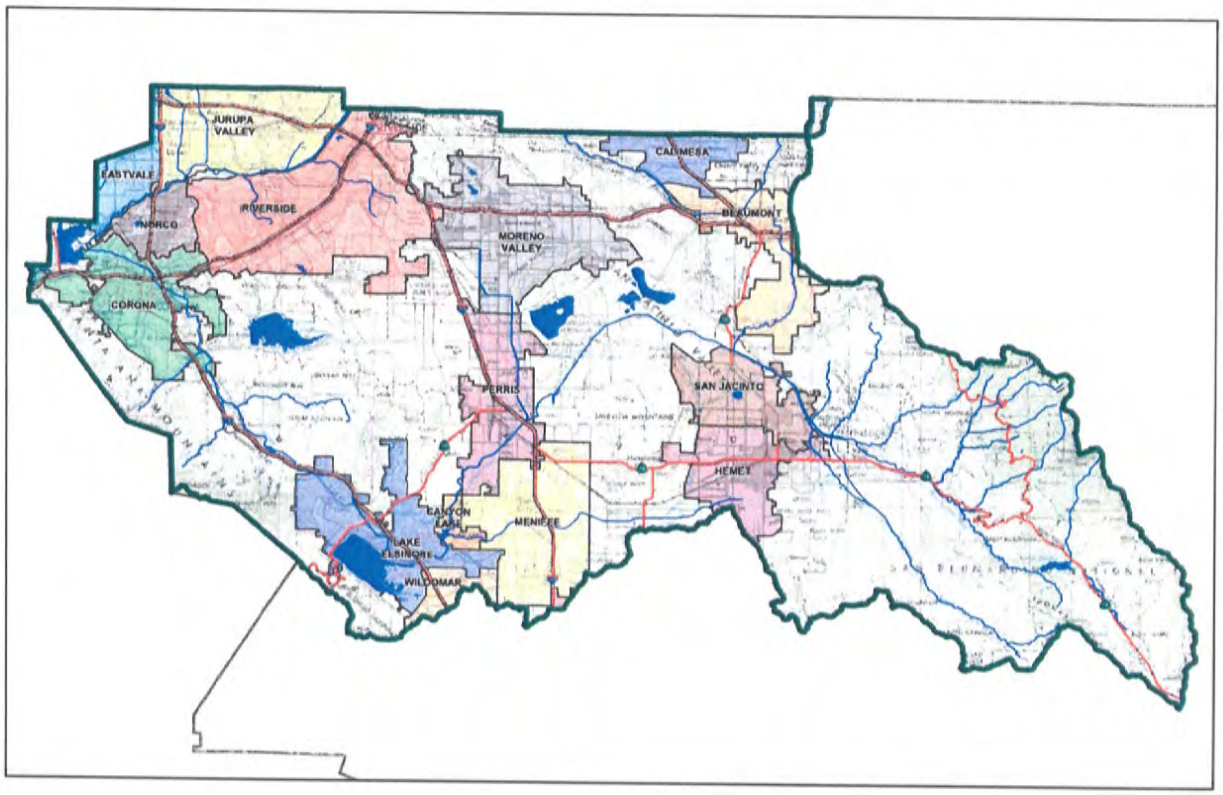
Project Specific Water Quality Management Plan

***Santa Ana Watershed** Region of Riverside County*

Project Title: "TERRACINA"

Development No: TRACT 36557

Design Review/Case No: N / A



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☒ **Preliminary**
☐ **Final**

Original Date Prepared: December 3, 2012

Revision Date(s): April 1, 2014

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for TERRACINA INVESTORS, LLC by MAYERS & ASSOCIATES CIVIL ENGINEERING, INC. for VESTING TENTATIVE TRACT MAP 36557, "TERRACINA" project.

This WQMP is intended to comply with the requirements of CITY OF LAKE ELSINORE for ORDINANCE 1004 (Municipal Code 14.08) which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under CITY OF LAKE ELSINORE Water Quality Ordinance (Municipal Code 14.08).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
DAVID SALENE Owner's Printed Name	MANAGING MEMBER Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
GARY A. MARTIN Preparer's Printed Name	DIRECTOR OF ENGINEERING Preparer's Title/Position

Preparer's Licensure: R.C.E. 50318 and QSD/QSP Certificate #20139

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of _____ }

On _____ before me, _____,
Date — Here Insert Name and Title of the Officer

personally appeared _____
Name(s) of Signer(s)

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature _____
Signature of Notary Public

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Single Family Residential Development
Planning Area:	N / A
Community Name:	ALBERHILL
Development Name:	"TERRACINA"
PROJECT LOCATION	
Latitude & Longitude (DMS): 33° 42' N 117° 23' W	
Project Watershed and Sub-Watershed: Santa Ana River Watershed and Elsinore Valley, 802.30	
APN(s):378-040-004, 378-040-005, 378-040-006, 378-040-007, 378-040-012, 389-180-001, 389-180-002, 389-190-002.	
Map Book and Page No.: Thomas Bros. 2008, Page 865, H-1/H-2 and J-1.	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s):	SINGLE FAMILY RESIDENTIAL , OPEN SPACE & RECREATIONAL
Proposed or Potential SIC Code(s):	N/A
Area of Impervious Project Footprint (SF):	3,363,633 SF (77.2 ac)
Total Area of <u>proposed</u> Impervious Surfaces within the Project Limits (SF)/or Replacement	2,642,670 SF (60.7 ac)
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☒ Y ☐ N
EXISTING SITE CHARACTERISTICS	
Total area of <u>existing</u> Impervious Surfaces within the project limits (SF)	0 s.f.
Is the project located within any MSHCP Criteria Cell? (*This was a mapping error by Riverside County)*	☒ Y ☐ N
If so, identify the Cell number: N / A	
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	
What is the Water Quality Design Storm Depth for the project?	0.80" AVERAGE DEPTH

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
City of Lake Elsinore-Storm Drain System	None	None	N /A
Alberhill Creek	None	None	N /A
Temescal Wash	None	None	N /A
Lee Lake , HSA 801.34	(Not enough data to estimate nitrate/ nitrogen concentrations)	AGR, IND, GWR, REC1, REC2, WARM, WILD	N / A
Temescal Creek, HSA 801.25	pH	REC1, REC2, WARM, WILD	8.6 miles
Santa Ana River, Reach 3, HSA 801.21	Pathogens (Dairies) & Copper (wet-season only)	AGR, GWR, REC 1, REC2, WARM WILD RARE, SPWN	

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☒ Y	☐ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☒ Y	☐ N
US Army Corps of Engineers, CWA Section 404 Permit	☒ Y	☐ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N

Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
*Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☒ Y	☐ N
Other *(please list in the space below as required)*	☐ Y	☒ N

**MSHCP is a mapping error and recognized by the City of Lake Elsinore as not required.*

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The project site includes impermeable soils which acts as a constraint. Therefore, Extended Detention Basins are designed and included in Areas 'A' and 'B'. According to the "Preliminary Geotechnical Investigation Terra Cotta Property Valley Assemblage Located North of Dryden Street and Lakeshore Drive in the City of Lake Elsinore, Riverside County, California", dated February 27, 2004, and prepared by Lawson & Associates Geotechnical Consulting, Inc. there are no other constraints. From a soils engineering and geologic point of view, the subject property is considered suitable for the proposed development provided the recommendations are incorporated in the design.

A. Preserve Existing Drainage Patterns: The existing drainage patterns within the natural open space areas will remain the same in the proposed condition. Storm runoff will continue to sheet flow naturally in the developed stage through the natural open space areas. In the developed condition, the remainder of the land will be graded and developed into a residential subdivision with associated improvements.

The project site presents the following opportunities: 1) The preservation of four areas identified as 'Natural Open Space' areas; 2) The developed site will provide bioretention drainage systems. According to the Soils Report (see Appendix 3) although minor amounts of perched groundwater were encountered, groundwater is not expected to be a major factor during construction; 3) There are unbuildable parcels within the site, and 4) The project site includes several hydraulic heads (elevation differences) that provides for natural surface drainage in the open space areas.

B. Protect Existing Vegetation & Sensitive Areas. Existing vegetation is protected in the areas designated as 'Natural Open Space' area. This is approximately 20.7 gross acres. The existing vegetation within the 'Biologically Sensitive Area" will also be protected. This area is 3.8 gross acres.

C. Preserve Natural Infiltration Capacity. The natural infiltration will be preserved within the natural open space areas including the 'Biologically Sensitive Area' by not disturbing the existing drainage patterns.

D. Minimize Impervious Area. 1) The impervious areas include roofs and streets. The roofs were minimized by proposing a subdivision with two-story homes instead of one-story. The streets are designed as narrow as acceptable by the City of Lake Elsinore and Riverside County Fire Department standards. 2) The impervious areas were minimized by retaining four 'Natural Open Space" areas.

E. Runoff Dispersed to Adjacent Pervious Areas. The roof runoff will be designed to disperse roof runoff to the adjacent landscaped areas wherever possible. Because this is a hillside development, drainage from upper areas will be collected in catch basins and piped to LID BMPs (Extended Detention Basins and an Infiltration Basin) in the lower areas.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
AREA 'A'	**CONCRETE OR ASPHALT**	**563,102 (12.93 ac)**	**Type 'D'**
	ROOFS	**511,938 (11.75 ac)**	
	LANDSCAPING	**976,636 (22.42 ac)**	
AREA 'B'	**CONCRETE OR ASPHALT**	**896,900 (20.59 ac)**	**Type 'D'**
	ROOFS	**1,051,756 (24.15 ac)**	
	LANDSCAPING	**2,019,660 (46.37 ac)**	
AREA 'C'	**CONCRETE OR ASPHALT**	**130,509 (2.996 ac)**	**Type 'D'**
	ROOFS	**209,428 (4.807 ac)**	
	LANDSCAPING	**409,295 (9.396 ac)**	

[1] *Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
AREA A-4, Type 'A'	**426,900 s.f. (9.8 ac)**	**Undeveloped Areas**	**Not Applicable**
AREA B-4, Type 'A'	**196,000 s.f (4.5 ac)**	**Undeveloped Areas and Landscaped Slopes**	**Conservation Design**
AREA C-4, Type 'A'	**496,600 s.f. (11.4 ac)**	**Undeveloped Areas and Landscaped Slopes**	**Conservation Design**

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 [C]	Required Retention Depth (inches) [D]
N / A						

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					**Receiving Self-Retaining DMA**		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]
N / A							

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
Area 'A'	**BASIN 'A'**
Area 'B'	**BASIN 'B'**
Area 'C'	**BASIN 'C'**

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report is included in Appendix 3 to confirm present and past site characteristics that may affect the use of Infiltration BMPs. A Phase I Environmental Site Assessment is included in Appendix 4 for additional site characteristics.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site...	**YES**	**NO**
...have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
...have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
...have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
...have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: *Areas "A" and "B"*	X	
...have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
...geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies:

- ☐ Reclaimed water will be used for the non-potable water demands for the project.
- ☐ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).
- ☐ The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 69.2 ACRES

Type of Landscaping (Conservation Design or Active Turf): Active Turf

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 79.8 ACRES

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: .98

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 78.2 ACRES

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
78.2 ACRES	69.2 acres

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: Number of daily Toilet Users

Project Type: RESIDENTIAL

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 77.2 ACRES

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 131

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 10,113

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
10,113	3,744

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N / A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: Enter Value

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

- LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
Basin C	☒	☐	☐	☐	☐
Basin A	☐	☐	☐	☒	☐
Basin B	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

Basin 'C' is designed as an Infiltration Basin. It is a flat earthen basin designed to capture the design capture volume. The stormwater infiltrates through the bottom of the basin into the underlying soil over a 72-hour drawdown period. Flows exceeding V_{BMP} will discharge to a downstream conveyance system. This type of basin is highly effective in removing all targeted pollutants from stormwater runoff.

To protect the basin from erosion, the sides and bottom of the basin will be vegetated with native or low water use plant species (refer to Appendix 6, Basin 'C' for design details.)

Basins 'A' and 'B' are designed as Extended Detention Basins because the infiltration rates are less than 1.6 inches/hour. The Extended Detention Basins are designed to detain the design volume of stormwater, V_{BMP}, and maximize opportunities for volume losses through infiltration, evaporation, evapotranspiration and surface wetting. Through the process of settling, additional pollutant removal is provided through sedimentation, in which pollutants can attach to sediment accumulated in the basin. The basins will be vegetated with native grasses that enhance infiltration and evapotranspiration (refer to Appendix 6, Basins 'A' and 'B' for design details).

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*EXTENDED DETENTION BASIN 'A'*		
	[A]		[B]	[C]	[A] x [C]			
A-1	*563,102*	*Concrete or Asphalt*	*1*	*0.89*	*501,160.78*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
A-2	*511,938*	*Roofs*	*1*	*0.89*	*455,624.82*			
A- 3	*976636*	*Ornamental Landscaping*	*0.1*	*0.11*	*107,429.96*			
	2,051,676				1,064,215.56	0.80	71120.9	[G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Table D.4 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*EXTENDED DETENTION BASIN 'B'*		
	[A]		[B]	[C]	[A] x [C]			
B-1	*896,900*	*Concrete or Asphalt*	*1*	*0.89*	*798,241.00*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
B-2	*1,051,756*	*Roofs*	*1*	*0.89*	*936,062.84*			
B-3	*2,019,660*	*Ornamental Landscaping*	*0.1*	*0.11*	*222,162.60*			
	3,968,316				1,956,466.44	0.80	130752.6	[G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

Table D.5 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*INFILTRATION BASIN 'C'*		
	[A]		[B]	[C]	[A] x [C]			
C-1	*130,509*	*Concrete or Asphalt*	*1*	*0.89*	*116,153.01*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
C-2	*209,428*	*Roofs*	*1*	*0.89*	*186,390.92*			
C-3	*409,295*	*Ornamental Landscaping*	*0.1*	*0.11*	*45,022.45*			
	749,232				347,566.38	0.80	23228.9	[G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

- LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

DRAINAGE MANAGEMENT AREAS (DMAs)

<u>DMA Type "D"</u>

Area "A" = 47.10 Acres

Area "B" = 91.11 Acres

Area "C" = 17.20 Acres

<u>SELF-TREATING AREAS</u>

Area "A-4" = 9.8 Acres

Area "B-4" = 4.5 Acres

Area "C-4" = 11.4 Acres

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☒ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☐ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☐	☒	☒	☐	☒	☒	☒

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N / A	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Area x Runoff Factor**		***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]				
						Design Storm Depth (in)	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D] \times [E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
Infiltration Basin "C"	Bacterial Indicators, Nutrients, Pesticides, Sediments, Trash & Debris, Oil & Grease	80% or greater
Extended Detention Basins "A" & "B"	Bacterial Indicators, Nutrients, Pesticides, Sediments, Trash & Debris, Oil & Grease	Between 40% and 80%

[1] *Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.*
[2] *Cross Reference Table E.1 above to populate this column.*
[3] *As documented in a Co-Permittee Approved Study and provided in Appendix 6.*

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

The downstream conveyance channel for runoff is the Santa Ana River.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Pertinent documentation used in our analysis is included in Appendix 7 of this Site Specific WQMP.

CONCLUSIONS:

Through the Water Quality Basins, the peak flow rates have been reduced at or below the existing flow rates.

Section G: Source Control BMPs

1. Source control BMPs include permanent, structural features that may be required in the project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. (Refer to Appendix 8)

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. On-Site Storm Drain Inlets	Catch Basin Markers as approved by City of Lake Elsinore	Maintain & Replace Inlet Markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators.
D. Landscape / Outdoor Pesticide Use	Locations of Natural Open Space Areas to be undisturbed and retained. Self-Retaining Landscape Areas.	Maintain landscaping using minimum or no pesticides. Provide Educational information to new owners & operators.
Public Streets		Sweep streets on a regular basis to prevent debris from entering the storm drain system
Sidewalks and Parking Areas (Applies to Park/Recreational Area)		Sweep sidewalks & hardscape regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system.
Catch Basins	Insert Filterra Bioretention System	Bioretention Systems to be maintained by the HOA on a regular basis to prevent debris from entering the storm drain system.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: This will be a combination of the HOA and the City of Lake Elsinore. (Refer to the attached Operation and Maintenance chart.)

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☒ Y ☐ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

BMP Operation & Maintenance

PUBLIC BMPs	Responsible Party(s)	Inspection / Maintenance Activities Required	Minimum Frequency of Activities
Trash Pick-Up	City of Lake Elsinore	Pick-up trash curb-side	Weekly
Basins 'A', 'B' and 'C'	Owner (until plants are established) and the City of Lake Elsinore accepts them.	1) Signs of seepage or erosion downstream of spillway 2) Inlet pipe & spillway condition 3) Sediment accumulation 4) Erosion of slopes 5) Vegetation management 6) Debris & trash accumulation 7) Vector control (mosquitoes)	Inspect semi-annually, after the first qualifying rain event, and prior to the rainy season, October 1st of each year.
Street Sweeping	City of Lake Elsinore	Vacuum sweep streets to remove sediment & trash accumulation	Bi-monthly basis, after qualifying major storm events and prior to October 1st of each year.
Catch Basin Markings	City of Lake Elsinore	Marking Catch Basins with City approved logo	Annual basis or as needed to insure legibility.
Catch Basins & Storm Drain Systems	City of Lake Elsinore	Clean stormwater catchment systems	Twice Annually and prior to the rainy season, October 1st of each year.
PRIVATE BMPs	**Responsible Party(s)**	**Inspection / Maintenance Activities Required**	**Minimum Frequency of Activities**
Basins 'A', 'B' and 'C'	Responsible Party to be determined	1) Signs of seepage or erosion downstream of spillway 2) Inlet pipe & spillway condition 3) Sediment accumulation 4) Erosion of slopes 5) Vegetation management 6) Debris & trash accumulation 7) Vector control (mosquitoes)	Inspect semi-annually, after the first qualifying rain event, and prior to the rainy season, October 1st of each year.
Filterra Bioretention Systems	Homeowners Association	Remove foreign debris, mulch & trash, Evaluate plant health, replace as needed & maintain records.	Twice annually, during the Spring to clean up after winter loads and Fall to remove excessive leaf llitter.

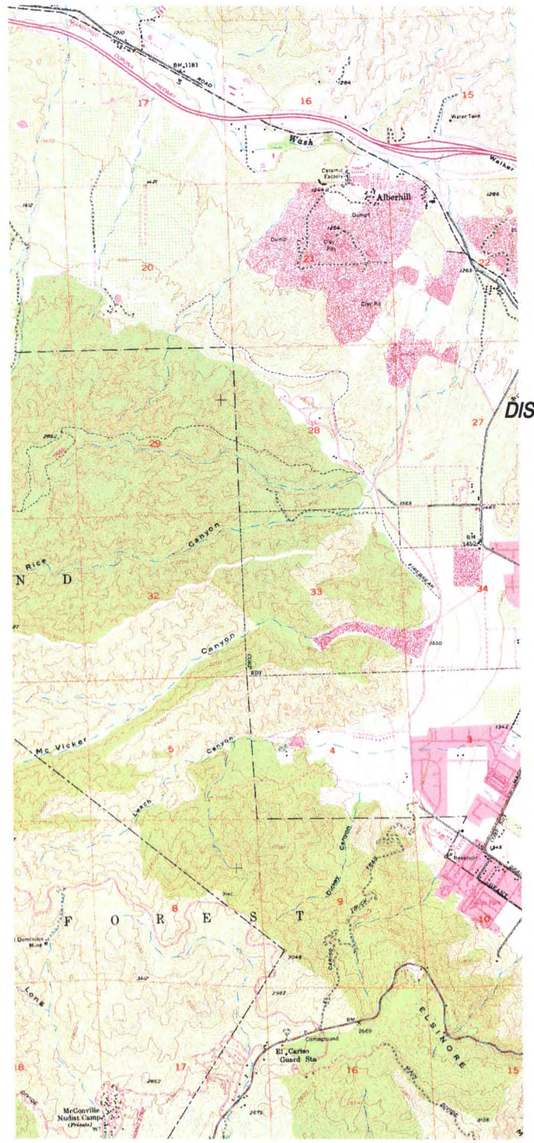
BMP Operation & Maintenance			
PRIVATE BMPs	**Responsible Party(s)**	**Inspection / Maintenance Activities Required**	**Minimum Frequency of Activities**
Catch Basins	Homeowners Association	Marking Catch Basins until such time as the City accepts the streets & storm drain system	Annual basis or as needed to insure legibility.
Common Area Landscaping	Homeowners Association	Drought Tolerant Plants, Use of Fertilizers & Pesticides	Weekly (Refer to SD-10 of CASQA)
Common Area Irrigation	Homeowners Association	Inspect for leaks, check rain shut-off devices; minimize runoff; group plants by water needs	Monthly (Refer to SD-12 of CASQA)
Educational Materials	Homeowners Association	Provide to home owners and HOA employees within two months of residence/hire	Annually and as necessary when property owners/HOA employees are not adhering to restrictions

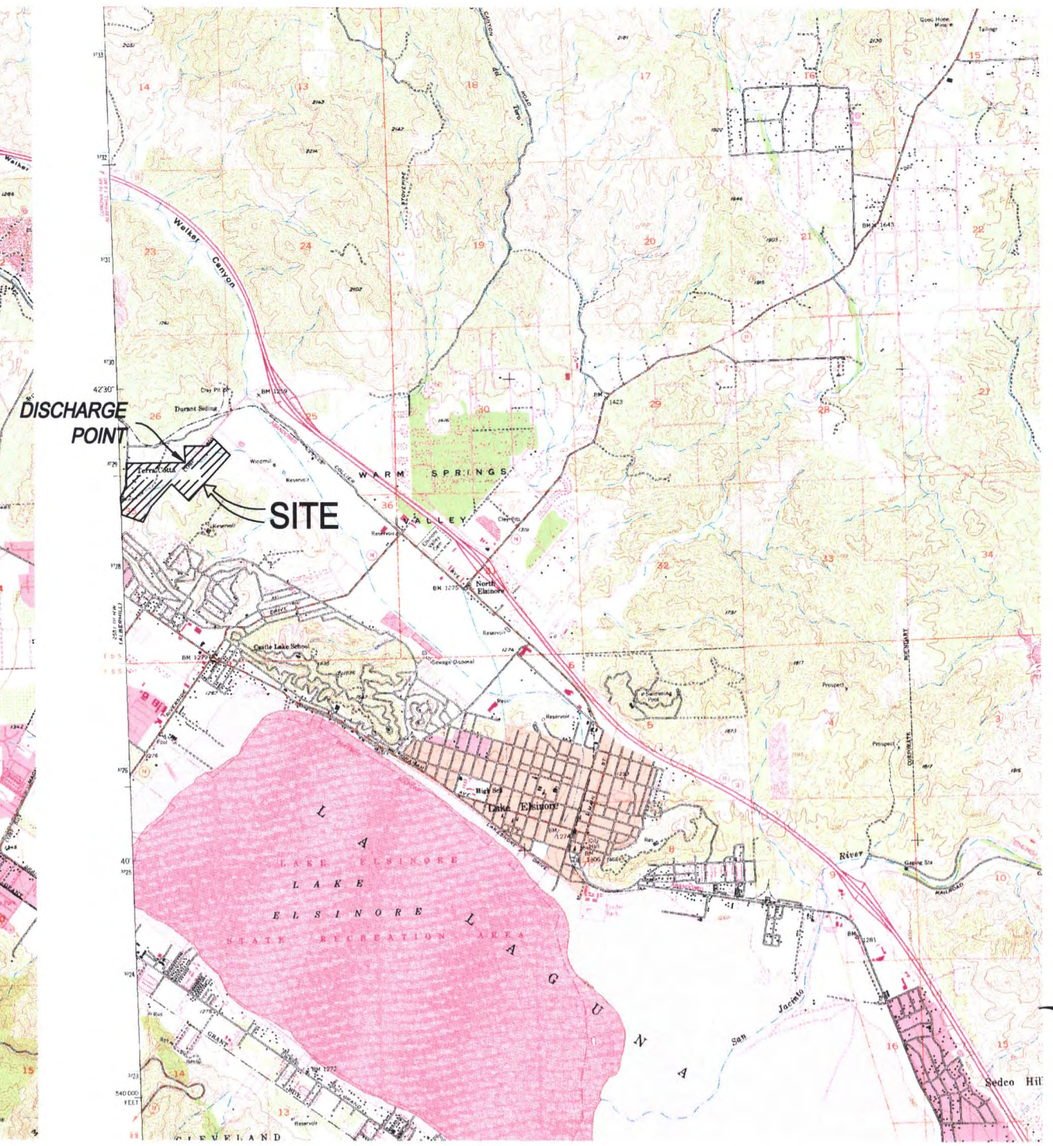
LIST OF APPENDICES

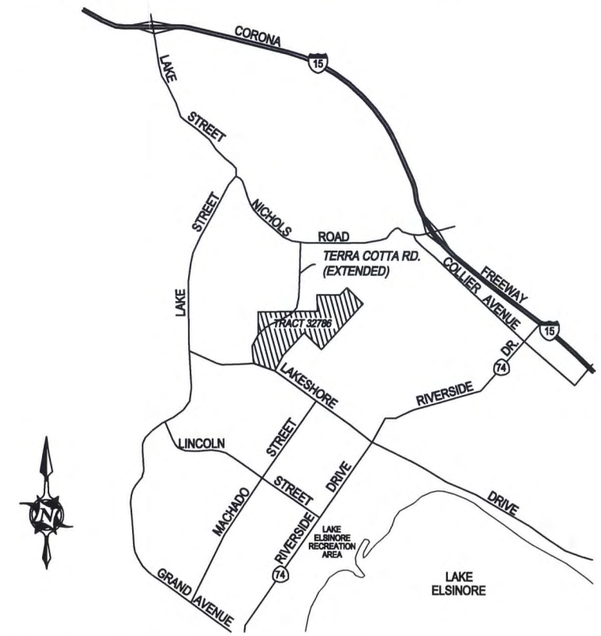
Appendix 1:	Maps and Site Plans
Appendix 2:	Construction Plans
Appendix 3:	Soils Information
Appendix 4:	Historical Site Conditions
Appendix 5:	LID Infeasibility
Appendix 6:	BMP Design Details
Appendix 7:	Hydromodification
Appendix 8:	Source Control
Appendix 9:	Operation & Maintenance Information
Appendix 10:	Educational Materials

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map







THOMAS BROS. MAP PG.865, GRID H1, H2 & J1

VICINITY MAP

NOT TO SCALE

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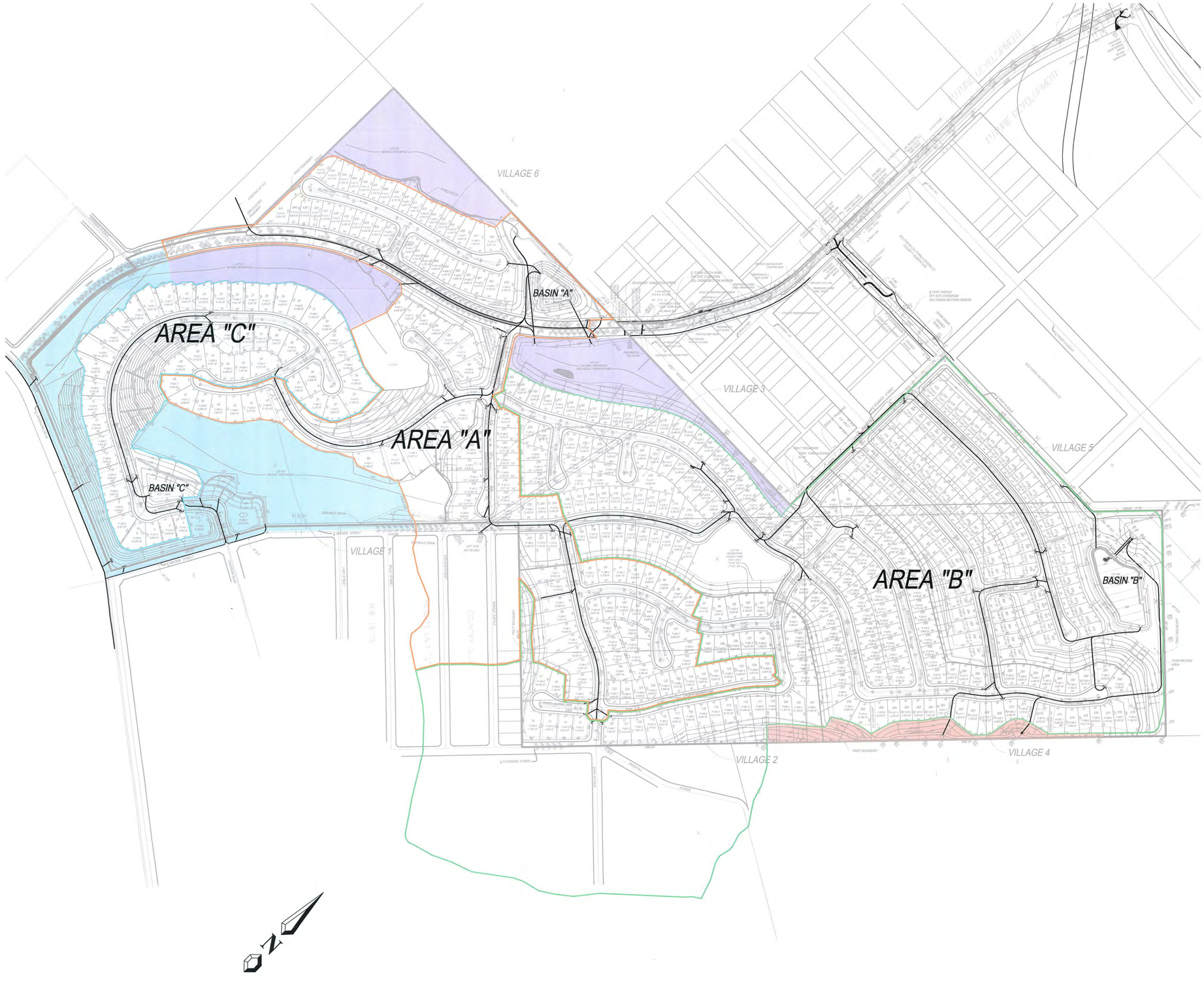
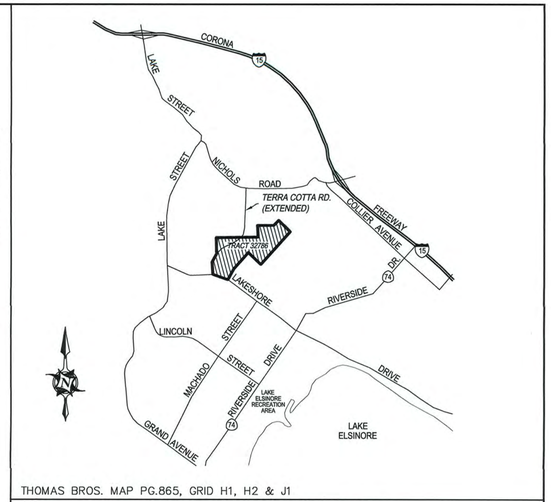
"TERRACINA"
CITY OF LAKE ELSINORE

USGS VICINITY MAP
VTTM 36557





THOMAS BROS. MAP PG.865, GRID H1, H2 & J1

VICINITY MAP

NOT TO SCALE

DRAINAGE MANAGEMENT AREAS (DMA TYPE "D")

- AREA "A" = 47.10 AC.
- AREA "B" = 91.11 AC.
- AREA "C" = 17.20 AC.

DMA - TYPE "A" SELF-TREATING AREAS

- AREA "A-4" = 9.8 AC.
- AREA "B-4" = 4.5 AC.
- AREA "C-4" = 11.4 AC.

N

GRAPHIC SCALE

200 0 100 200 400

(IN FEET)
SCALE 1"=200'

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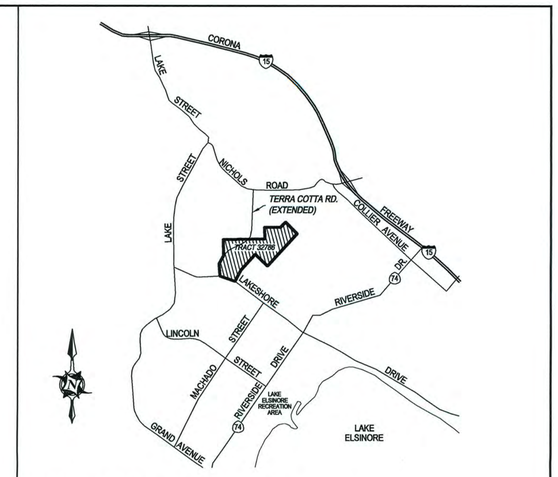
"TERRACINA"
CITY OF LAKE ELSINORE

DRAINAGE MANAGEMENT AREA PLAN
VTTM 36557

Dwg. Revision Date: **05/06/2014** BY: **JC** PLOT DATE: **03/12/2014**

P:\12-0047-87 TTM 32786 Terracina\Improvements\Storm Drain\WQMP\Drainage Management areas.dwg



THOMAS BROS. MAP PG.865, GRID H1, H2 & J1

VICINITY MAP

NOT TO SCALE

LEGEND

- CATCH BASIN W/ FILTERRA BIORETENTION SYSTEM
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN THAT BYPASSES TREATMENT CONTROL
- TRACT BOUNDARY
- DRAINAGE
- LANDSCAPED & IRRIGATED SLOPES (H.O.A.)
- PAVED AREAS (PUBLIC)
- OPEN SPACE (H.O.A.)
- COMMUNITY PARK / RECREATION AREA (H.O.A.)

TREATMENT CONTROL BMP

- EXTENDED DETENTION BASIN "A" & "B" (H.O.A.)
- INFILTRATION BASIN "C" (H.O.A.)

GRAPHIC SCALE

200 0 100 200 400

(IN FEET)
SCALE 1"=200'

PREPARED BY:	PREPARED FOR:		
MAYERS & ASSOCIATES Civil Engineering, Inc. PLANNING • ENGINEERING • SURVEYING 19 Spectrum Pointe Drive • Suite 609 Lake Forest, CA 92630 (949) 599-0870 (949) 599-0880 Fax http://www.mayerscivil.com	SPECTRUM COMMUNITIES 5753 G. SANTA ANA CANYON ROAD STE. 507 ANAHEIM HILLS, CA 92807 PHONE: (714) 745-6546	"TERRACINA" CITY OF LAKE ELSINORE	WQMP SITE PLAN VTTM 36557

Dwg. Revision Date: 09/18/2013 BY: J.C. PLOT DATE: 01/10/2014

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Appendix 2: Construction Plans

Grading and Drainage Plans

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

December 3, 2012

Project No. G12-1022-21

Mr. David Salene and Mr. Don Clurman
SPECTRUM COMMUNITIES
5753 S. Santa Ana Canyon Road, Suite 507
Anaheim Hills, California 92807

Subject: ***Updated Preliminary Infiltration Study for Onsite Storm Water Treatment for the Proposed "Terracina" Project, Tract 32786, Lake Elsinore Area, Riverside County, California***

1.0 INTRODUCTION

References: David Jeffers Consulting, Inc. 2012 "Received TTM No. 32786 'Terracina' " Lake Elsinore, California, Scale: 1"=200', dated November 5, 2012, Job No. 126-003

LGC Geo-Environmental, Inc. (LGC) is pleased to present this updated preliminary infiltration report for the on-site storm water infiltration system for the proposed residential development, located at the northeast corner of intersection of Lakeshore Drive and Dryden Street, City of Lake Elsinore, Riverside County, California. The purpose of updated study was to determine the vertical infiltration rates and physical characteristics of the subsurface soils existing within the subject property at the revised basin locations. Our scope of services includes providing specific design criteria to the project civil engineer's design of the proposed on-site storm water run off infiltration system. Based on our discussion, storm water is proposed to be collected and infiltrated into a detention basin within proposed development.

2.0 PROPERTY LOCATIONS AND DESCRIPTION

The subject property is located at the northeast corner of Lakeshore Drive and Dryden Street, City of Lake Elsinore, Riverside County, California. (See Figure 1). The topography of the site is steeply sloped rolling hills with a slight slope to the southwest corner of the property. The site is currently undeveloped with single-family residences surrounding the project. The vegetation consisted of moderate, low-lying grasses and weeds, and scattered debris throughout the site.

3.0 PROPOSED CONSTRUCTION

Based on our understanding of the proposed development, a revised infiltration basin is proposed within the project site in three separate locations, which are depicted on the plans provided by David Jeffers Consulting, Inc at the time of this updated report.

4.0 SUBSURFACE EXPLORATION: INFILTRATION PERCOLATION TESTING

4.1 Subsurface Exploration

Subsurface exploration of the subject site consisted of a total of sixteen (16) percolation test locations during three (3) separate phases of investigation. On June 22, 2012, four (4) test trenches were initially excavated within the proposed infiltration area to the proposed depth of approximately 4.0 to 5.0 feet below existing grade for infiltration testing utilizing a tractor-mounted backhoe. On September 6, 2012, eight (8) additional test trenches were excavated in proposed infiltration basin areas located on the northern and northeastern portions of the project site (See Plate 2 and Plate 3). Finally, four (4) more test trenches were excavated within the revised basin located in the southwestern portion of the site, (See Plate 1). Earth materials encountered within the locations were classified in general accordance with the visual manual procedures of the Unified Soil Classification System (USCS). The approximate locations of the infiltration tests are shown on the attached Infiltration Test Location Maps; Plates 1 through 3.

4.2 Infiltration Testing

On June 23, 2012, four (4) percolation tests, labeled P-1 thru P-4 were performed within the excavated trenches to the proposed depth within the infiltration areas, in addition to the original four (4) percolation tests, eight (8) tests labeled P-5 thru P-12 were performed on September 7, 2012 and four (4) tests labeled P-13 thru P-16 were performed, on November 14, 2012.. A 12-inch plastic liner was placed within the excavated hole and ¾-inch gravel was placed surrounding the liner. Clean water was filled within each of the test locations. From a fixed test point, the drop in water level was then measured and recorded at intervals over a period of 4 hours or until the rate was within a five percent variation. This testing method was utilized due to the nature of the soil type and the absence of groundwater within ten (10) feet of the proposed basin. The locations of the tests are shown on the attached Infiltration Test Location Maps, Plates 1 through 3. The infiltration test data sheets are presented in Appendix A. A summary of the infiltration test results is presented in Section 5.3.

5.0 FINDINGS

5.1 Earth Materials

The earth materials underlying the site include undocumented artificial fill and Quaternary Young Alluvium within the southwestern portion and Tertiary Silverado formation in the northeastern portion (Figure 2 – Regional Geologic Map) within the upper 4.0 feet. The soils encountered consisted of silty sands which were dark brown to yellow brown, damp to moist, loose to medium dense, and slightly porous. The bedrock encountered consisted of sandstone that was olive to light brown, damp, moderately hard to hard, and moderately weathered. The Silverado Formation is noted to be into bedded siltstone to claystone light brown to grey, deep, moderately hard, and intensely weathered.

5.2 Groundwater

Groundwater was not encountered during the current subsurface exploration. The California Department of Water Resources, Water Data Library does not indicate any existing groundwater data in the vicinity of the proposed development.

5.3 *Infiltration Testing Results*

TEST NO.	TEST DEPTH (Feet)	PERCOLATION RATE		SOIL DESCRIPTION (USCS)
		CM/HR	IN/HR	
P-1	5.3	762.00	300.00	Silty SAND (SM)
P-2	5.2	152.40	60.00	Silty SAND (SM)
P-3	4.7	76.20	30.00	Silty SAND (SM)
P-4	5.6	254.00	100.00	Silty SAND (SM)
P-5	4.1	5.08	2.00	Silty SAND (SM)
P-6	4.0	0.64	0.25	Clayey SAND (SC)
P-7	4.2	0.64	0.25	Clayey SAND (SC)
P-8	4.2	5.72	2.25	Silty SAND (SM)
P-9	4.3	3.18	1.25	Silty SAND (SM) & Clayey SAND (SC)
P-10	4.1	3.18	1.25	Silty SAND (SM) & Clayey SAND (SC)
P-11	4.0	2.24	0.88	Clay SAND (SC) & CLAY (CL)
P-12	4.5	0.64	0.25	Clay SAND (SC) & CLAY (CL)
P-13	3.8	1066.80	420.00	Silty SAND (SM)
P-14	3.9	173.74	68.40	Silty SAND (SM)
P-15	4.2	210.31	82.80	Silty SAND (SM)
P-16	3.9	210.31	82.80	Silty SAND (SM)

6.0 CONCLUSIONS AND RECOMMENDATIONS

Infiltration testing for the proposed development indicated design rates of approximately 30 inches per hour withi the southwestern portion of the project site. However, the additional basins tested within the northern and eastern portions of the project site (see Plate 2 and Plate 3), due to the geologic units encountered has an approximate infiltration rate of 0.25 inches per hour. Furthermore, based on the data presented in this report and the referenced geotechnical investigation, in addition to testing information accumulated, it is also the judgment of **LGC** that the groundwater should not be present within the current allowable limit (10 feet) set forth by the County of Riverside and California State requirements.

7.0 INVESTIGATION LIMITATIONS

This report is based upon information provided by the client, from published documents, a limited number of subsurface excavations, field observations and tests to which we applied various methods of analysis and interpretation. The materials encountered on the project site and described in reviewed literature are believed representative of the project area, and the conclusions and recommendations contained herein are presented on that basis. However, soil materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions, recommendations, and performance of the storm water management system.

Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation, and the other factors not in evidence at the time measurements were made.

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, b engineers and geologists practicing in this or other localities. The contents of this report are professional opinior and as such, are not to be considered a guarantee or warranty.

The opportunity to be of service is appreciated. Should you have any questions regarding the content of this report, or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

LGC GEO-ENVIRONMENTAL, INC.

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Attachments: Figure 1 – Site Location Map *(Rear of Text)*
Figure 2 – Regional Geology *(Rear of Text)*
Appendix A – Infiltration Test Results *(Rear of Text)*
Plates 1 thru 3 – Infiltration Test Location Map *(Rear of Text)*

APPENDIX A

INFILTRATION PERCOLATION TEST RESULTS

Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-1	Date Excavated:	6/22/2012
Depth of Test Hole:	5'3"	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	6/23/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	6/22/12	9:05	24.00	All 5-gallons
Stop	6/23/12	9:05		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
9:05 9:06	1	1	12	6.00	6.00	0.17
9:06 9:07	1	2	11	5	6.00	0.17
9:07 9:08	1	3	8	0	8.00	0.13
9:09 9:10	1	4	11	6	5.00	0.20
9;11 9:12	1	5	11	6	5.00	0.20
9:13 9:14	1	6	11	6	5.00	0.20

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-2	Date Excavated:	6/22/2012
Depth of Test Hole:	5'2"	Soil Classification:	SM
heck for Sandy Soil Criteria By:	JW	Date of Perc Test:	6/23/2012

Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	6/22/12	9:10	24	All 5 Gal.
Stop	6/23/12	9:12		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
9:16 – 9:20	4	4	11.0	3.0	8.0	0.50
9:20 – 9:25	5	9	11.0	3.0	8.0	0.63
9:26 – 9:32	6	15	11.0	5.0	6.0	1.00
9:33 – 9:39	6	21	11.0	5.0	6.0	1.00
9:40 – 9:46	6	27	11.0	5.0	6.0	1.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-3	Date Excavated:	6/22/2012
Depth of Test Hole:	4'7"	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	6/23/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	6/22/12	7:40	24.00	5 Gal.
Stop	6/23/12	7:45		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
7:51	7	7	11.00	6.00	5.00	1.40
7:58						
8:00	10	17	11.00	6.00	5.00	2.00
8:10						
8:11	10	27	11.00	6.00	5.00	2.00
8:21						
8:22	10	37	11.00	6.00	5.00	2.00
8:32						

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-4	Date Excavated:	6/22/2012
Depth of Test Hole:	5'6"	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	6/23/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	6/22/12	8:30	24.00	5 gallons
Stop	6/23/12	8:25		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
8:25	10	10	11.00	6.00	5.00	2.00
8:35						
8:37	10	20	11.00	6.00	5.00	2.00
8:47						
8:48	10	30	11.00	5.00	6.00	1.67
8:58						
8:59	10	40	11.00	5.00	6.00	1.67
9:09						

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-5	Date Excavated:	9/6/2012
Depth of Test Hole:	4.1	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	10:30	1.00	5 gallons
Stop	9/7/12	8:25		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
10:46 11:46	60	60	10.00	8.00	2.00	30.00
11:47 12:47	60	121	10.00	8.00	2.00	30.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-6	Date Excavated:	9/6/2012
Depth of Test Hole:	4	Soil Classification:	SC
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	12:40	21:59	5 gallons
Stop	9/7/12	10:39		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
10:49 11:49	60	60	10.00	9.75	0.25	240.00
11:49 12:47	60	120	9.75	9.50	0.25	240.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-7	Date Excavated:	9/6/2012
Depth of Test Hole:	4.2	Soil Classification:	SC
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	13:11	6:57	+/- 2.5 of 5 gallons
Stop	9/7/12	10:40		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
10:51 11:51	60	60	10.00	9.75	0.25	240.00
11:51 12:51	60	120	9.75	9.50	0.25	240.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-8	Date Excavated:	9/6/2012
Depth of Test Hole:	4.2	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	11:49	22:54	All 5 gallons
Stop	9/7/12	10:43		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
10:54 11:54	60	60	10.00	7.75	2.25	26.70
11:55 12:55	60	121	10.00	7.75	2.25	26.70

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-9	Date Excavated:	9/6/2012
Depth of Test Hole:	4.3	Soil Classification:	SM/SC
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	10:30	21:36	+/- 4 of 5 gallons
Stop	9/7/12	8:06		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
8:07 9:07	60	60	10.00	8.75	1.25	48.00
9:08 10:08	60	121	10.00	8.75	1.25	48.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-10	Date Excavated:	9/6/2012
Depth of Test Hole:	4.1	Soil Classification:	SM/SC
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	10:08	22:01	+/- 4.5 of 5 gallons
Stop	9/7/12	8:09		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
8:10	60	60	10.00	8.75	1.25	48.00
9:10						
9:11	60	121	10.00	8.75	1.25	48.00
10:11						

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-11	Date Excavated:	9/6/2012
Depth of Test Hole:	4.0	Soil Classification:	SC/CL
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	10:09	22:03	+/- 3.5 of 5 gallons
Stop	9/7/12	8:12		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
8:14	60	60	10.00	9.13	0.87	68.60
9:14						
9:15	60	121	10.00	9.13	0.87	68.60
10:15						

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-12	Date Excavated:	9/6/2012
Depth of Test Hole:	4.5	Soil Classification:	SC/CL
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	9/7/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	9/6/12	11:07	21:09	+/- 3 of 5 gallons
Stop	9/7/12	8:16		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
8:17 9:17	60	60	10.00	9.75	0.25	240.00
9:17 10:17	60	120	9.75	9.50	0.25	240.00

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-13	Date Excavated:	11/14/2012
Depth of Test Hole:	3.8	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	11/14/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	11/14/12	15:31	24 Hrs	All 5-gallons
Stop	11/14/12	15:32		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
15:31	1	1	10.00	0	10	>0.1
15:32						

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-14	Date Excavated:	11/14/2012
Depth of Test Hole:	3.9	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	11/14/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	11/14/12	14:36	24 Hrs	All 5-gallons
Stop	11/14/12	15:19		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
14:36 14:46	10	10	10.00	0	10	>1.00
14:47 14:57	10	21	10.00	0.00	10	>1.00
14:58 15:08	10	32	10.00	1.25	8.75	1.14
15:09 15:19	10	43	10.00	1.25	8.75	1.14

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-15	Date Excavated:	11/14/2012
Depth of Test Hole:	4.2	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	11/14/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

	Date	Time	Interval	Amount of Water Used
Start	11/14/12	14:34	24 hrs	All 5-gallons used
Stop	11/14/12	15:17		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
14:34 14:44	10	10	10.00	0	10	>1.00
14:45 14:55	10	21	10.00	2.00	8	1.25
14:56 15:06	10	32	10.00	2.25	7.75	1.29
15:07 15:17	10	43	10.00	2.75	7.25	1.38

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Project:	Terracina	Job No.:	G12-1022-21
Test Hole No.:	P-16	Date Excavated:	11/14/2012
Depth of Test Hole:	3.9	Soil Classification:	SM
Check for Sandy Soil Criteria By:	JW	Date of Perc Test:	11/14/2012 Diameter: 8"

SANDY SOIL CRITERIA TEST

TIME	Time Interval (Minutes)	Time Interval (Minutes)	Initial Water Level (Inches)	Final Water Level (Inches)	Change In Water Level (Inches)

PRESOAK PERIOD

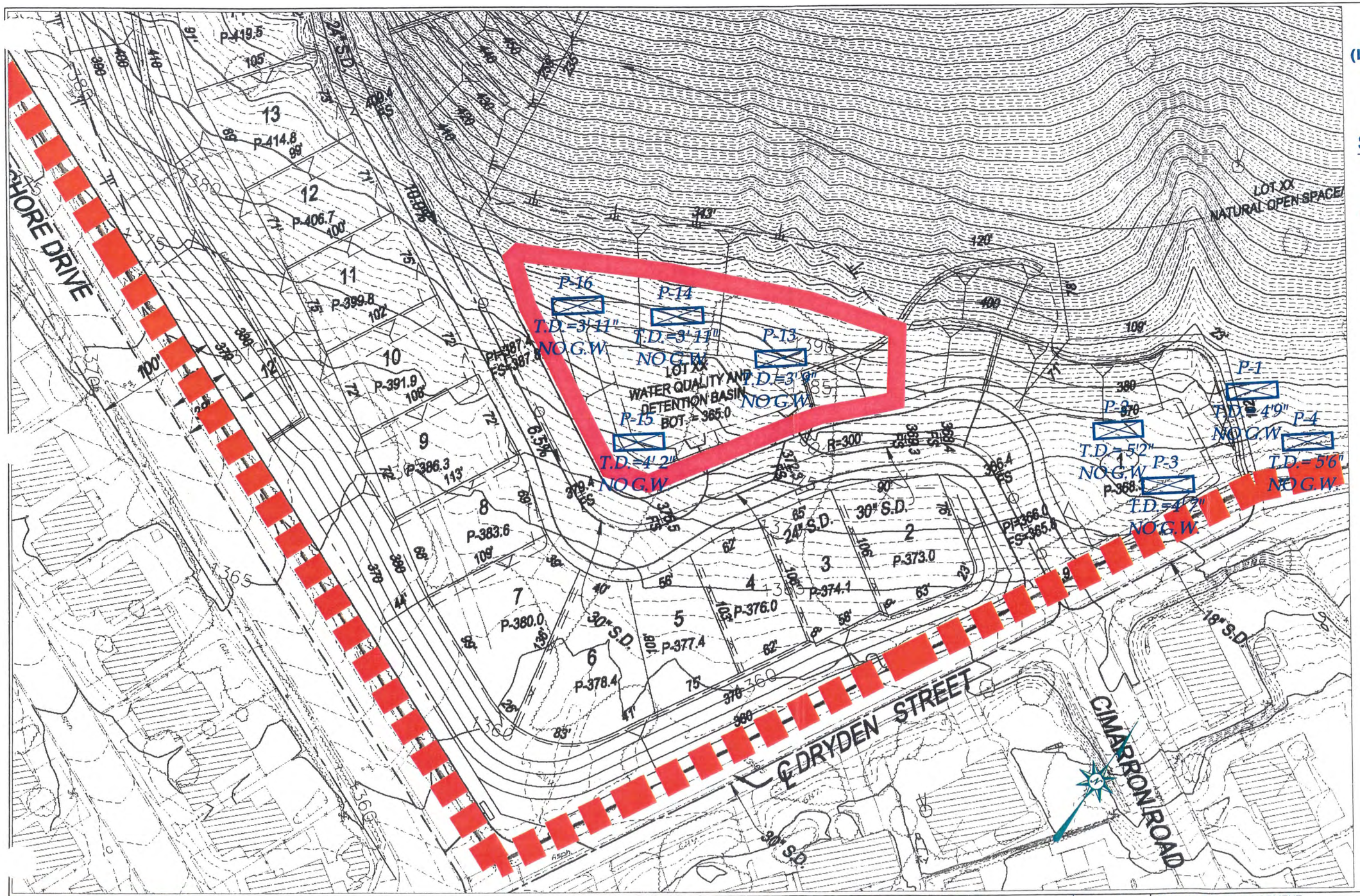
	Date	Time	Interval	Amount of Water Used
Start	11/14/12	14:30	24 Hrs	All 5 Gallons
Stop	11/14/12	15:13		

TEST PERIOD

Time	Time Interval (min.)	Total Elasped Time (min.)	Initial Water Level (inches)	Final Water Level (inches)	Change In Water Level (Inches)	Percolation Rate (min./inch)
14:30 14:40	10	10	10.00	0.50	9.5	1.05
14:41 14:51	10	21	10.00	1.75	8.25	1.21
14:52 15:02	10	32	10.00	2.50	7.50	1.33
15:03 15:13	10	43	10.00	2.75	7.25	1.38

LGC

LGC GEO-ENVIRONMENTAL, INC.



LEGEND

(Locations are Approximate)

Symbols

- Limits of Report

P-16
T.D.=3'11"
NO G.W.

- Infiltration Test Location

LGC

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Geo-Environmental, Inc.
31915 Rancho California Road, #200343
Temecula, California 92591
Office: (951) 287-2450
Fax: (951) 344-8214

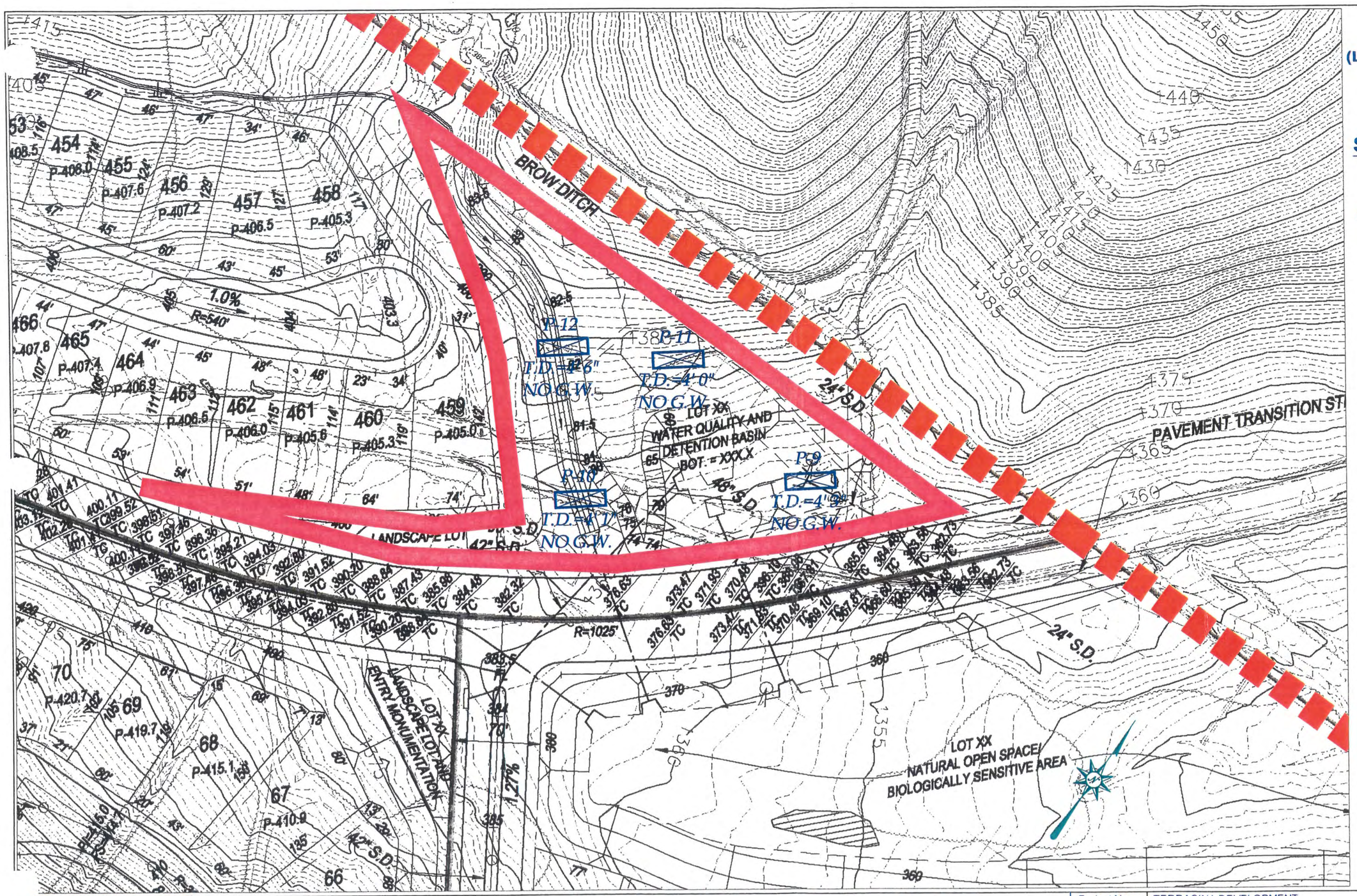
INFILTRATION BASIN LOCATION MAP

"TERRACINA" DEVELOPMENT

CITY OF LAKE ELSINORE, RIVERSIDE COUNTY, CALIFORNIA

Project Name	TERRACINA DEVELOPMENT
Project No.	G12-1022-21
Eng. / Geol.	LDC/RLG
Scale	(Inches:Feet) 1:480
Date	JULY 2012, UPDATED DECEMBER 2012

PLATE 1



LEGEND
(Locations are Approximate)

Symbols

- Limits of Report

P-162
T.D.=4' 6"
NO G.W.

- Infiltration Test Location

LGC

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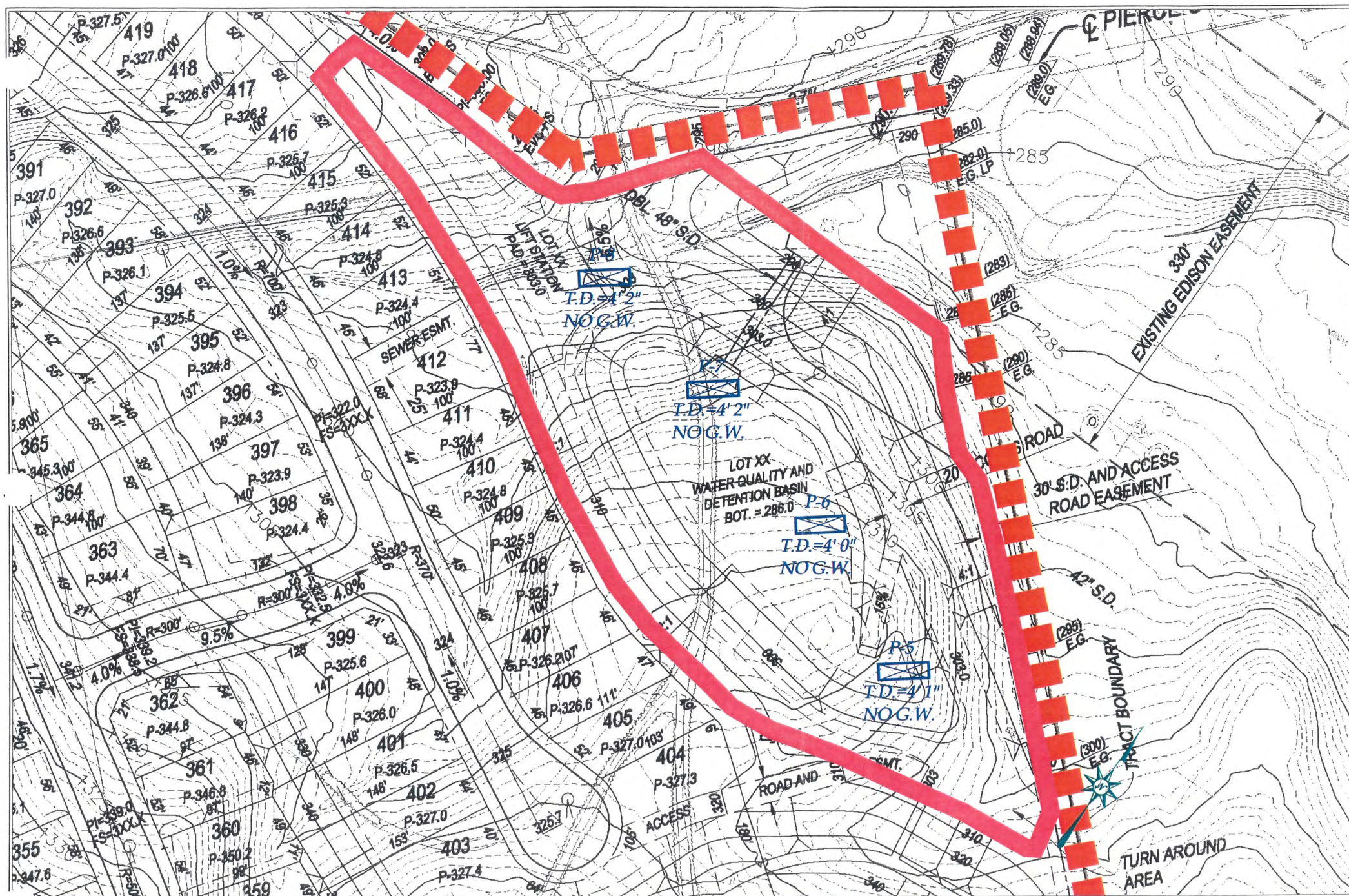
31915 Rancho California Road, #200343
Temecula, California 92591
Office: (951) 287-2450
Fax: (951) 344-8214

INFILTRATION BASIN LOCATION MAP
"TERRACINA" DEVELOPMENT
CITY OF LAKE ELSINORE, RIVERSIDE COUNTY, CALIFORNIA

Project Name	TERRACINA DEVELOPMENT
Project No.	G12-1022-21
Eng. / Geol.	LDC/RLG
Scale	(Inches:Feet) 1:480
Date	JULY 2012; UPDATED DECEMBER 2012

PLATE 2



LEGEND
(Locations are Approximate)

Symbols

- Limits of Report

P-8
T.D.=4' 2"
NO G.W.
- Infiltration Test Location

LGC
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INFILTRATION BASIN LOCATION MAP
"TERRACINA" DEVELOPMENT
CITY OF LAKE ELSINORE, RIVERSIDE COUNTY, CALIFORNIA

Project Name	TERRACINA DEVELOPMENT
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Eng. / Geol.	LDC/RLG
Scale	(Inches:Feet) 1:480
Date	JULY 2012; UPDATED DECEMBER 2012

PLATE 3

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Lawson & Associates
Geotechnical Consulting, Inc.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
VALLEY ASSEMBLAGE
133.83-ACRE MULTI-PARCEL PROPERTY
CITY OF LAKE ELSINORE
RIVERSIDE COUNTY, CALIFORNIA

Project No.: 042371-40

Dated: February 27, 2004

Prepared for:

Mr. Steve Alford
CENTEX HOMES
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Lawson & Associates
Geotechnical Consulting, Inc.

February 27, 2004 Project No. 042371-40

Mr. Steve Alford
CENTEX HOMES
2280 Wardlow Circle, Suite 150
Corona, California 92880

Subject: ***Phase I Environmental Site Assessment, Valley Assemblage, 133.83-Acre Multi-Parcel Property, City of Lake Elsinore, Riverside County, California***

Lawson & Associates Geotechnical Consulting, Inc. (LGC) is pleased to submit herewith our Phase I Environmental Site Assessment report for the Valley Assemblage, 133.83-Acre Multi-Parcel Property, located northeast of Lakeshore Drive and Terra Cotta Street, in the City of Lake Elsinore, Riverside County, California. Our study was performed in accordance with the scope of work outlined in our Proposal No. 042371-99 dated February 4, 2004 and ASTM Phase I ESA Standard E1527-2000.

This report presents the results of our limited site reconnaissance, historical review, regulatory records review, and other information detailed within this report.

It has been a pleasure to be of service to you on this project. Should you have any questions, regarding th content of this report or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

LAWSON & ASSOCIATES GEOTECHNICAL CONSULTING, INC.

Mark Bergmann
Vice President

KMC/TD/MB/jn

Distribution: (4) Addressee

40935 County Center Drive • Suite A • Temecula, CA 92591 •(909) 719-1076 • Fax (909) 719-1077

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Site Maps

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Sanborn Maps

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File Review Information

Miscellaneous

PHASE I ESA EXECUTIVE SUMMARY OVERVIEW *Valley Assemblage 133.83-Acre Multi-Parcel Property* *Northeast of Lakeshore Drive and Terra Cotta Street, Lake Elsinore, CA*					
Section Topic	***No RECs Identified***	***Non-REC Issue Identified***	***RECs Identified***	***Phase II Recommended***	***Comments***
Historical Usage	✔				
Regulatory Database Review (on-site)	✔				
Regulatory Database Review (nearby sites)	✔				
On-site Operations	✔				
Haz. Mat. Handling		✔			One unlabeled 5-gallon plastic container had approximately 4 gallons of a blue paint like substance that should be properly disposed of (Peterson parcel).
Haz. Waste Handling	✔				
USTs/ ASTs	✔				
ACMs		✔			Numerous debris piles have been dumped on the property. If any suspect ACMs are identified, they should be sampled prior to disturbance or demolition, and then handled accordingly.
LBP/ Lead in H2O	✔				
PCBs	✔				
Radon	✔				
Other	✔				No wells were identified on-site although some areas were obscured. If any wells are identified, they should be properly abandoned if they are no longer to be used.

RECs = Recognized Environmental Conditions
USTs = Underground Storage Tanks
ASTs = Aboveground Storage Tanks
ACMs = Asbestos-Containing Materials
LBP = Lead-Based Paint
PCBs = Polychlorinated Biphenyls

1.0 EXECUTIVE SUMMARY & RECOMMENDATIONS

Lawson & Associates Geotechnical Consulting, Inc. (LGC) was retained by **Centex Homes** (Client) to perform a Phase I Environmental Site Assessment (Phase I ESA or Assessment) of a multi-parcel site located northeast of Lakeshore Drive and Terra Cotta Street in the City of Lake Elsinore, Riverside County, California. The property is located within primarily a residential area. At the time of the February 13 and 17, 2004 site visits, the subject property was generally bounded by mining property and scattered residences to the north, scattered residences to the east, Lakeshore Drive and Dryden Street followed by residences to the south and Terra Cotta Street followed by residences to the west.

This Phase I ESA was performed in accordance with the scope and limitations of the American Society for Testing and Materials (ASTM) Phase I ESA Standard E1527-2000, the scope of work defined in this report, as well as the signed service agreement. The following summarizes LGC's independent conclusions and best professional judgment based upon information available to us during the course of this Assessment.

Based upon the limited site reconnaissance, historical review, regulatory records review, and other information detailed within this report, this Assessment identified no evidence of ASTM Recognized Environmental Conditions (RECs) in connection with the subject property. However, other non-REC issues were identified as discussed below. With the possible exception of the items below, no further investigation is recommended at this time.

- The subject property has been undeveloped from at least the early 1950s until the present time and contains no structures. No evidence of significantly improper hazardous waste disposal was observed on the subject property, although some abandoned steel 55-gallon drums and steel 5-gallon containers were noted. The observed steel 55-gallon drums and steel 5-gallon containers were found to be empty and dry during the recent site visits. The site soils beneath and surrounding the abandoned steel drums and containers showed no signs of distressed vegetation, staining or spillage. One unlabeled 5-gallon plastic container had approximately 4 gallons of a blue paint like substance that should be properly disposed of.

- Numerous debris piles have been dumped on the property. LGC's scope of work did not include a suspect asbestos-containing materials (ACMs) inspection or survey. However, suspect ACMs possibly dumped on the subject property may include, but are not necessarily limited to: building materials and irrigation piping. As defined in NESHAPs Section 61.141, the observed materials may be classified as suspect regulated ACMs. Prior to any renovation, or any other activity that may disturb these materials, either an inspection should be performed by an accredited Building Inspector, or if future sampling identifies any such materials as ACMs, they should be properly abated and disposed of by a state-licensed abatement contractor prior to disturbance or renovation.

- No wells were observed at the subject property, although some low-lying drainage areas were inaccessible due to dense vegetation during the site visits. Two, three-foot diameter irrigation stand pipes were noted on the Peterson parcel. One of the stand pipes contained approximately one foot of water. If any on-site wells are identified in the future at the subject property, they will require proper abandonment if they are no longer to be used.

An Executive Summary Overview is also included on the previous page. When making any decisions concerning the findings of this Assessment, also refer to the remainder of this report, which may present other items of interest that are not discussed in the Executive Summary, and/or provide further detail concerning the above-listed items.

2.0 SCOPE OF WORK & LIMITATIONS

2.1 Purpose

The primary goal of this Phase I Environmental Site Assessment is to assist the client in satisfying one of the four requirements to qualify for the "innocent landowner defense" to CERCLA liability (42 U.S.C. §9601 et. seq.). The innocent landowner defense is predicated on the assumption that "...the defendant must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability...." The secondary goal of this Assessment is to provide information that will assist in evaluating the risk of potential value impairment of the security interest or environmental liability, as well as to provide information for various potential operational limitations and decisions based upon those potential defects.

2.1 Protocol

The ASTM Standard E1527-2000 is the most widely recognized method currently used in attempting to perform the due diligence required to achieve the above purpose. The E1527-2000 Standard was created by the ASTM "...in an effort to define good commercial and customary practice in the United States of America for conducting an environmental site assessment...." The ASTM Standard E1527-2000 is intended to identify recognized environmental conditions (RECs) in connection with a given property. The term recognized environmental conditions is not intended to include "de minimus" conditions that generally do not present a material risk of harm or that are unlikely to be the subject of enforcement actions by governmental agencies. Other conditions or issues that are beyond the ASTM scope may also be discussed in this report, as detailed within each section.

2.3 Scope of Work

Utilizing ASTM Standard E1527-2000, as well as the scope of work discussed below and in the work authorization document, this Assessment involved: A site reconnaissance of the subject property, limited observations of adjoining properties, a review of the historical usage of the subject property, and a review of relevant documentation provided by various public and private sources (including the client and/or owner of the subject property) to evaluate the presence or likely existence of:

- Recognized environmental conditions, specified by ASTM E1527-2000 as: "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property."

- A brief evaluation and assessment of potential environmental issues which may not rise to the level of recognized environmental conditions, such as: obviously improper hazardous material or waste handling, off-site issues, suspect asbestos-containing materials, lead-based paint, polychlorinated bi-phenyls, and radon gas.

2.4 *Limitations*

As discussed in ASTM E1527-2000, no Phase I ESA can completely eliminate uncertainty regarding the potential for RECs in connection with a subject property. This investigation is simply intended to reduce uncertainty within reasonable limits of time and cost.

The observations contained within this Assessment are based upon conditions readily observable during the site visits. These observations are typically unable to address conditions of areas not inspected, hidden from view, subsurface soil, groundwater, underground storage tanks, neighboring properties, and the like, unless specifically mentioned. It is not the purpose of this Assessment to determine the actual presence, or degree or extent of contamination (if any) at the subject property. Unless specifically noted within this report, this Assessment does not include observations, testing, coring, or sampling analysis to address groundwater, soil, or extraneous materials contamination (including mold issues) in or on the subject property. This Assessment does not include or address reasonably ascertainable environmental liens recorded against the subject property.

LGC makes no warranties or guarantees as to the accuracy or completeness of information obtained from or compiled by others. Information may also exist which was beyond the scope of this investigation, or was not provided to LGC that may have an impact on the conclusions of this Assessment. This Assessment does not attempt to address past or forecast future site conditions.

This Assessment has been conducted and prepared in accordance with generally accepted practices and procedures exercised by reputable professionals under similar circumstances. LGC makes no other warranties or guarantees, either expressed or implied, as to the findings, opinions, or recommendation contained in the report, or as to the existence or non-existence of RECs at the subject property.

3.0 *GENERAL SITE DESCRIPTION*

During the site visit, the LGC Assessor was unaccompanied. However, the 133.83-acre subject property boundaries were illustrated on maps, provided by Centex Homes, of the subject property parcels.

3.1 *Previous Environmental Documentation*

Previous environmental documentation concerning a portion of the subject property which was provided to LGC by the Client includes a September, 2003 Phase I ESA by Tait Environmental Management, Inc. (Tait). The Tait report was performed on the westernmost parcel of the subject property, totaling 82.49 acres. The Tait report found no RECs and concluded: "No further investigation is deemed necessary at this time." A copy of portions of the Tait report is included in the appendix.

3.2 *Adjoining and Adjacent Properties*

As discussed in ASTM E1527-2000, an adjoining property is any real property whose border is contiguous or partially contiguous with the subject property, or would be if the properties were not separated by a roadway, street or other public thoroughfare. For the purposes of this report, an adjacent property is any real property located within approximately one block of the subject property's border.

The subject property is located within a primarily residential area. Specifically, the subject property is bordered by the following:

North: Immediately by Pacific Clay mining property and scattered residences.
East: Immediately by scattered residences.
South: Immediately by Lakeshore Drive and Dryden Street followed by single-family residences.
West: Immediately by Terra Cotta Street followed by single family residences.

3.3 *USGS Topographic Map*

The subject property's physical setting was researched employing United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (Quad) Maps relevant to the subject property. In general, USGS 7.5 Minute Quad Maps have an approximate scale of 1 inch to 2,000 feet, and show physical features such as wetlands, roadways, mines, and buildings. The USGS 7.5 Minute Quad Maps were used as the Standard Physical Setting Source, and are sufficient as a single reference. Copies are included in the appendix.

The most recent Alberhill and Lake Elsinore Quadrangle Maps (dated 1997) show no physical features that are likely to environmentally impact the subject property. The subject property is identified as undeveloped land. Several dirt roads traverse the subject property and a small drainage trends northeast from the subject property off site towards Baker Street. No mines, wells, or wetlands were noted in the immediate area of the subject property. The elevation of the subject property ranged from approximately 1,345 to 1,600 feet above mean sea level with a topographic gradient to the northeast.

3.4 *General Hydrogeologic Characteristics*

The general area of the subject property is located in the Peninsular Ranges Geomorphic Province of California. The northwest-trending topography is controlled by the Elsinore Fault Zone, which extends from the San Gabriel River Valley southeasterly to the US/Mexico border. The Santa Ana Mountains lie along the western side of the Elsinore fault zone, while the Perris Block (where the subject property is located) is located along the eastern side of the Elsinore fault zone. The upper units are generally comprised of non-marine sediments consisting of sandstone, mudstones, conglomerates, and occasional volcanic units.

The soil underlying the area of the subject property has been characterized as:

> Cieneba Series – The Cieneba series consists of somewhat excessively drained soils on uplands. In a typical profile, the surface layer is brown sandy loam about 14 inches thick. Underlying this is light yellowish-brown gravelly coarse sand. Rock outcrops cover 2 to 10 percent of the surface of this soil. Included in mapping are a few small areas having a cobbly sandy loam surface layer. The vegetation is chiefly annual grasses, chamise, and flat top buckwheat. The Cieneba soils are used for dryland grain, pasture, and range, for irrigated citrus, and for homesites (source: 1971 USDA-SCS Soil Survey of Riverside County).

Site specific information (a recent preliminary geotechnical investigation conducted by LGC) for the subject property showed that groundwater occurred at depths as high as 9 feet below the ground surface. The groundwater gradient in the area of the subject property is estimated to flow to the northeast. However, property specific groundwater can be influenced by several factors, and may not conform to the reported regional pattern. Shallow perched groundwater zones may also exist.

4.0 HISTORICAL REVIEW

The site historical review is used to develop an understanding of the previous uses of the subject property and surrounding area in an effort to identify the likelihood of past uses, or activities having environmentally impacted, the subject property. The historical review consisted of a search of various public and private Standard Historical Sources, as detailed in the sections below.

As defined by ASTM E1527-2000, a Standard Historical Source is considered complete if the information contained within the source provides the required information back to 1940, or to the first developed use (including agricultural). Ideally, the information should be available in either five-year intervals or site milestone events (i.e., initial construction activities, demolition activities, etc.). However, available public and private historical sources do not always fulfill this goal, in which case, the closest approximation is made based upon the sources readily available at the time of historical review.

Historical Review Summary: From the historical information review discussed below, LGC concludes that the subject property has never been developed. Most of the neighboring properties were residential or mining property, with some residential structures noted until significant tract development began in the 1980s and 1990s. No dry cleaners, gasoline stations, landfills, military bases or major manufacturing businesses were identified on the subject property.

4.1 Aerial Photograph Review

Aerial photographs were reviewed to evaluate past land-use patterns of the subject property and vicinity. The photos were provided by Rupp Aerial Photography of Corona, California. Reproduction of the Rupp photos for publication was not allowed. This review revealed the following:

1953: The subject property is undeveloped. The surrounding land usage also consists of undeveloped land and scattered residences. North: Terra Cotta Road followed by undeveloped land and scattered residences. East: Dryden Street and Pierce Street followed by undeveloped land and scattered residences. South: Lakeshore Drive followed by undeveloped land, scattered residences and orange groves. West: Terra Cotta Road followed by undeveloped land, scattered residences and orange groves.

1961: This aerial photo is similar to the 1953 photo, with the exception of somewhat greater development density in the greater surrounding area.

1967: This aerial photo is similar to the 1961 photo, with the exception of somewhat greater development density in the greater surrounding area.

1978: The subject property is undeveloped. The surrounding land usage also consists of orange groves, undeveloped land and scattered residences. North: Terra Cotta Road followed by orange groves, undeveloped land and scattered residences. East: Dryden Street and Pierce Street followed by undeveloped land and scattered residences. South: Lakeshore Drive followed by undeveloped land, scattered residences and orange groves. West: Terra Cotta Road followed by undeveloped land, scattered residences and orange groves.

1986: This aerial photo is similar to the 1978 photo, with the exception that residential construction activity is apparent west of Terra Cotta Road and residential development density is greater west of Terra Cotta Road, south of Lakeshore Drive and east of Dryden Street.

1992: This aerial photo is similar to the 1986 photo, with the exception of somewhat greater development density in the greater surrounding area.

1997: This aerial photo is similar to observations made during the site visit. The surrounding land usage is also similar to that observed during the site visit.

4.2 Building Permit Review

In an effort to evaluate the official construction and demolition history (if any) of the subject property, LGC attempted to request all building records on file with the City of Lake Elsinore Building Department (LEBD). However, according to the LEBD, without a physical street address for possible past structures, such a search cannot be performed. In addition, no past underground storage tank (UST) documentation for the subject property was located as a result of this search.

4.3 Sanborn Fire Insurance Map Review

LGC attempted to review Sanborn Fire Insurance Maps for the area of the subject property as provided by EDR. Sanborn Maps are detailed drawings that show the location and use of structures on a given property during specific years. These maps were originally utilized by insurance companies to assess fire risk, but are now utilized as a valuable source of historical and environmental risk information. However, according to EDR, no maps were available for the subject property.

4.4 City Street Directory Review

Based upon the other significant historical sources available, the current undeveloped usage, city street directories were not reviewed for the subject property.

4.5 Interviews

No Key Site Manager was identified to interview regarding the subject property.

4.6 *Recorded Land Title Records*

As specified in ASTM E1527-2000, recorded land titles are records usually maintained by the municipal or county recorder of deeds which detail ownership fees, leases, land contracts, easements, and other encumbrances attached to or recorded against the subject property. Due to state land trust regulations and laws, land title records typically only provide trust names, owner's names, or easement holders, and not information concerning previous uses or occupants of the subject property. Additionally, environmental liens recorded against a given property are considered outside the scope of recorded land-title records. Therefore, this Assessment has relied upon other standard historical information sources which are typically more informative than recorded land titles.

5.0 *AGENCY RECORDS REVIEW*

In an effort to evaluate whether the subject property or nearby sites have reported USTs, hazardous waste generation, or hazardous material releases, regulatory information from the federal, state and local agencies listed below were reviewed. The database review was provided by Environmental Data Resources, Inc. (EDR) and is reportedly the most recent database information available from each agency. A copy of the database report is included in the appendix. In addition, LGC may request state or local agency regulatory information for the subject property, targeting those agencies most likely to provide information useful for this Assessment. A discussion of the number of sites identified, and of their potential impact to the subject property, is detailed on the following pages. The primary databases reviewed with their search range criteria are listed below:

Please note that the search radius of each database was expanded by ½-mile from ASTM standards due to th size of the subject property.

FEDERAL DATABASE	*SEARCH RANGE*
USEPA NPL/Superfund database:	1.5 mile
USEPA CERCLIS database:	1 mile
USEPA ERNS database:	0.5 mile
USEPA RCRIS facilities databases	
TSD Facilities:	1 mile
Corrective Action Sites:	1.5 mile
Generators:	0.75 mile

STATE/LOCAL DATABASE	*SEARCH RANGE*
State Superfund databases:	1.5 mile
State Landfills database:	1 mile
State/Local LUST databases:	1 mile
State/Local UST/AST databases:	0.75 mile
State Spills databases:	1 mile
HAZNET database:	0.5 mile

LGC's Agency Records Request/Search Range:

Riverside County Environmental Health Department/Subject Property

5.1 *Review of Federally Reported Environmental Data*

The review of the federal environmental databases listed below attempts to identify environmental problem sites, activities, and occurrences from the records of the U.S. Environmental Protection Agency (USEPA). The detailed listing, and a map showing the location of the sites relative to the subject property, is included in the appendix.

National Priorities List (NPL) of Superfund Sites:

The NPL is the USEPA's database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program. A search of the NPL database identified the following number of Superfund sites within the specified database search range:

NUMBER OF SITES	*NUMBER LISTED AT SUBJECT PROPERTY*
None	None

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980:

Mandated as part of the 1980 Superfund Act, the CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) list is an EPA compilation of the sites investigated, or currently being investigated, for a release or potential release of a regulated hazardous substance under the CERCLA regulations. A search of the CERCLIS and CERC-NFRAP (no further remedial action planned) databases identified the following number of sites within the specified database search range:

NUMBER OF SITES	*NUMBER LISTED AT SUBJECT PROPERTY*
None	None

Emergency Response Notification System (ERNS):

The ERNS database is the historical record of reported releases of hazardous substances reported to the USEPA. A search of the ERNS database identified the following number of releases within the specified database search range:

NUMBER OF SITES	*NUMBER LISTED AT SUBJECT PROPERTY*
None	None

Resource Conservation and Recovery Act Information System (RCRIS) Treatment, Storage, and Disposal (TSD) Facilities:

The RCRA program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS-TSD facilities database is the composite of reporting facilities that transport, store, or dispose of controlled or hazardous waste. Identification on this list does not indicate that a site has impacted the environment. A search of the RCRIS-TSD database identified the following number of facilities within the specified database search range:

NUMBER OF SITES	*NUMBER LISTED AT SUBJECT PROPERTY*
None	None

RCRIS Generator Facilities:

The RCRIS program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS generator facilities database (large and small quantity generators) is the composite of reporting facilities that generate hazardous waste. Identification on this list does not indicate that a site has impacted the environment. A search of the RCRIS facilities database identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

This pet clinic site is located over ¼-mile south of the subject property. This site is a small quantity generator that disposes of photochemicals/photoprocessing waste at a transfer station and has no reported violations. Based upon its distance and status, this site is unlikely to have environmentally impacted the subject property.

RCRIS Corrective Action (RCRIS-CA) Sites:

The RCRIS-CA report contains information pertaining to facilities which have conducted, or are currently conducting corrective actions as regulated by the Resource Conservation and Recovery Act. A search of the RCRIS-CA list identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

5.2 Review of State - Reported Environmental Data

Results of the state regulatory records search follow. Each section begins with a description of the database searched and the corresponding responsible state or local agency. The detailed listing, and a map showing the location of the sites relative to the subject property, is included in the appendix.

CalSites Databases:

CalSites combines the former ASPIS (Abandoned Sites Program Information System), Annual Work Plan (AWP), and Bond Expenditure Plan (BEP - State Superfund List) hazardous waste site databases. A search of the CalSites databases identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

California Hazardous Material Incident Report System (CHMIRS):

The California Hazardous Material Incident Report System database contains information on reported hazardous material incidents (accidental releases or spills). A search of this database identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

According to EDR, this site is located in excess of ¼-mile south and southeast of the subject property. The CHMIRS incident occurred on September 19, 1991. Based upon its distance and status, it is unlikely to have environmentally impaired the subject property.

Leaking Underground Storage Tanks (LUSTs):

State and/or local agencies maintain inventories of LUSTs in a statewide database. A search of the LUST database identified the following number of reported LUST sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
Two (2)	None

This site is repeated twice. This site is located over ½-mile west and northwest of the subject property and is reported as a closed case of soil contamination only. Based upon its distance and status this site is unlikely to have environmentally impaired the subject property.

Cortese Database:

The Cortese list contains hazardous waste and substance sites compiled pursuant to Assembly Bill 3750 (Cortese, Chapter 1048, Statutes of 1986). The information included in this list was compiled with information from the California DTSC, the State Water Resources Control Board, and the California Waste Management Board. A search of the Cortese database identified the following number of sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

This site is located over ½-mile west and northwest of the subject property and is reported as a closed case of soil contamination only. Based upon its distance and status this site is unlikely to have environmentally impaired the subject property.

Underground Storage Tanks (USTs):

USTs are regulated under Subtitle I of the RCRA, and must be registered with the State Underground Storage Tank Program. These are registered USTs only, and identification on this list does not necessarily indicate that the site has impacted the environment. A search of the UST database identified the following number of sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

This site is located over ½-mile west of the subject property and is reported to have three (3) tanks at the Teepee Ranch Store, located at 29251 Robb Road in Lake Elsinore. Based upon its distance this site is unlikely to have environmentally impaired the subject property.

Toxic Pits Database:

The Toxic Pits report contains information for suspected toxic pits sites in California where clean-up has not yet been completed, as provided by the State Water Resources Control Board. This was a one-time only database produced in 1995. A search of the Toxic Pits database identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

State Spills Databases:

The California Hazardous Materials Incident Report System (CHMIRS) and Spill, Leaks, Investigations, and Cleanups (SLIC) databases contain information for all reported hazardous material/waste surface or groundwater contamination investigations reported in California. A search of the SLIC and CHMIRS databases identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

State and/or Local Agency Generator/Permits Data:

The HAZNET data is extracted from copies of hazardous waste manifests kept by the Cal-EPA, DTSC. These manifests track hazardous wastes from generation source to the point of ultimate disposal. Permit data is generally culled from the local agency database for hazardous material handlers and generators. Identification on these lists does not indicate that a site has impacted the environment and the data has not always been verified for accuracy by the DTSC or local agencies. A search of the HAZNET and Permit data identified the following number of reported sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
Six (6)	None

One of these sites is adjacent to the subject property 31307 Terra Cotta Road. The Terra Cotta Road site had asbestos-containing waste disposed of at a landfill and unspecified organic liquid mixture disposed of at a landfill. The remaining HAZNET sites are all located in excess of ¼-mile from the subject property. Based upon their status or distance, the above-mentioned sites are unlikely to have environmentally impaired the subject property.

Orphan Unplottable Sites:

"Orphan" sites are those which could not be plotted by EDR using conventional geo-coding methods, typically because the information provided in the original government database was unclear, incorrect or missing. A listing of orphan sites (if any) appears at the end of the EDR database, immediately after the last plottable site description.

LGC reviewed the orphan list for sites with the same name as the subject property (if applicable) and/or the same or similar property address. This review is inherently limited by the incomplete and/or possibly incorrect data reported in the orphan listings. For orphans apparently not related to the subject property, only those obviously located adjoining or within a short distance that may affect the property are discussed. Orphan sites which are also listed in the plotted section are not re-discussed.

LGC's review of the orphan list revealed no obvious sites of concern listed at or adjoining the subject property.

5.3 Local Agency Records Search

The following is a discussion of the results of written records requests LGC made to state or local government agencies and/or personal/telephone contacts made to provide information relevant to the subject property:

Riverside County Environmental Health Department (RCEHD):

LGC contacted the RCEHD in an effort to evaluate whether hazardous material incidents or USTs have been reported at the subject property. However, according to the RCEHD, without a physical street address, such a search is impractical. However, based upon LGC's site inspection and historical research results, it appears unlikely that USTs or hazardous materials incidents have occurred at the subject property.

6.0 SITE VISIT OBSERVATIONS

6.1 Surface Characteristics

At the time of the site inspection, the subject property comprised a total of 133.83-acres consisting of six parcels of undeveloped land. At the time of the February 13 and 17, 2004 site visits, the subject property was generally bounded by Pacific Clay mining property and scattered residences to the north, scattered residences to the east, Lakeshore Drive and Dryden Street followed by residences to the south and Terra Cotta Street followed by residences to the west. Vegetation primarily consisted of ankle to chest high weeds and grasses with some scattered trees covering the majority of the site. The seasonal vegetation

showed no signs of unnatural or chemically induced stress. Weather conditions at the time of the site visits consisted of partly cloudy skies, with temperatures in the 70s.

The subject property has been undeveloped from at least the early 1950s until the present time and contains no structures. No evidence of significantly improper hazardous waste disposal was observed on the subject property, although some abandoned steel 55-gallon drums and steel 5-gallon containers were noted on the St. Pierre parcel. The observed steel 55-gallon drums and steel 5-gallon containers were found to be empty and dry during the recent site visits. The site soils beneath and surrounding the abandoned steel drums and containers showed no signs of distressed vegetation, staining or spillage. One unlabeled 5-gallon plastic container located on the Peterson parcel had approximately 4 gallons of a blue paint like substance that should be properly disposed of. No pits, ponds, lagoons, or impoundments potentially containing hazardous materials were observed on the subject property.

Numerous debris piles have been dumped on the property, primarily on the Peterson parcel. LGC's scope of work did not include a suspect asbestos-containing materials (ACMs) inspection or survey. However, suspect ACMs possibly dumped on the subject property may include, but are not necessarily limited to: building materials and irrigation piping. As defined in NESHAPs Section 61.141, the observed materials may be classified as suspect regulated ACMs. Prior to any renovation, or any other activity that may disturb these materials, either an inspection should be performed by an accredited Building Inspector, or if future sampling identifies any such materials as ACMs, they should be properly abated and disposed of by a state-licensed abatement contractor prior to disturbance or renovation.

No wells were observed at the subject property, although some low-lying drainage areas were inaccessible due to dense vegetation during the site visits. Two, three-foot diameter irrigation stan pipes were noted on the Peterson parcel. One of the stand pipes contained approximately one foot o. water. If any on-site wells are identified in the future at the subject property, they will require proper abandonment if they are no longer to be used.

6.2 *Wastewater and Stormwater Management*

Exterior surface run off from the subject property is expected to infiltrate through the site soils, as well as flow to the south and west onto adjoining roadways and properties. A concrete storm drain opening is located at the northeast corner of Terra Cotta Road and Lakeshore Drive.

6.3 *Potable Water Supply and Sewer Service*

Historically, the subject property has not utilized a potable water supply or sewer service. No residential structures utilizing septic system(s) were noted. When developed in the future, the subject property will likely utilize water and sewer service supplied by the Elsinore Valley Municipal Water District (EVMWD). A buried EVMWD water line is located on the Peterson parcel. The water line is marked by blue "Caution Water Pipeline" delineators and yellow valve assembly and yellow concrete-filled bollards.

6.4 *Structure Construction*

No current structures are located on the subject property.

6.5 *Business Operations Description*

At the time of the site visit, the subject property was undeveloped land. LGC's research indicates no dry cleaners, gasoline stations, landfills, military bases, or major manufacturing operations have occupied the subject property.

7.0 *HAZARDOUS MATERIAL/WASTE OBSERVATIONS*

7.1 *Hazardous Materials Handling and Storage*

During the on site inspection, no significant hazardous materials handling, storage, or disposal issues were observed on the subject property. In addition, no major staining or spillage was noted in any of the observable areas.

The subject property has been undeveloped from at least the early 1950s until the present time and contains no structures. No evidence of significantly improper hazardous waste disposal was observed on the subject property, although some abandoned steel 55-gallon drums and steel 5-gallon containers were noted on the St. Pierre parcel. The observed steel 55-gallon drums and steel 5-gallon containers were found to be empty and dry during the recent site visits. The site soils beneath and surrounding the abandoned steel drums and containers showed no signs of distressed vegetation, staining or spillage. One unlabeled 5-gallon plastic container located on the Peterson parcel had approximately 4 gallons of a blue paint like substance that should be properly disposed of.

7.2 *Wastestream Generation, Storage and Disposal*

No evidence of significantly improper hazardous waste disposal was observed on the subject property. During the inspection, no stained or discolored sinks, drains, catch basins, drip pads, or sumps were observed.

7.3 *Solid Waste Disposal*

During the site inspection, no municipal waste dumpsters were observed at the subject property. Numerous debris piles have been dumped on the property, including used tires, furniture, carpet, concrete, clothes, household trash, and wood. No obvious evidence of significant hazardous material dumping was noted in the visible areas in and around these trash piles.

7.4 *Aboveground Storage Tanks (ASTs)*

No ASTs were observed at the subject property.

7.5 *Underground Storage Tanks (USTs)*

As discussed in the Section V (Agency Records Review) of this report, no USTs were reported at the subject property or in the immediate vicinity. In addition, no visual or physical evidence of current or past USTs was discovered during the site visit. In particular, LGC searched for: fill pipes, vent pipes, manways, manholes, access covers, concrete pads not homogeneous with surrounding surfaces, concrete

build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps However, as previously noted, two irrigation pipes were observed on the Peterson parcel.

8.0 OTHER POTENTIAL ISSUES OF CONCERN

8.1 PCB-Containing Exterior Electrical Transformers

No electrical transformers were observed at the subject property.

8.2 Other PCB-Containing Interior or Exterior Equipment

No structures containing potential light ballasts inside fluorescent light fixtures, or evidence of any other PCB-containing equipment were noted on-site.

8.3 Suspect Asbestos - Containing Materials (ACMs)

No structures containing suspect asbestos-containing materials (ACMs) were identified on the subject property. Numerous debris piles have been dumped on the property. LGC's scope of work did not include a suspect asbestos-containing materials (ACMs) inspection or survey. However, suspect ACMs possibly dumped on the subject property may include, but are not necessarily limited to: building materials and irrigation piping. Suspect ACM testing was not included in the scope of work. However, as defined in NESHAPs Section 61.141, the observed materials may be classified as suspect regulated ACMs. Prior to any renovation, or any other activity that may disturb these materials, either a inspection should be performed by an accredited Building Inspector, or if future sampling identifies any such materials as ACMs, they should be properly abated and disposed of by a state-licensed abatement contractor prior to disturbance or renovation.

8.4 Lead Based Paint (LBP)

No structures containing lead-based paint (LBP) were identified on the subject property.

8.5 Lead in Drinking Water

No structures containing plumbing systems were identified on the subject property.

8.6 Air Quality

No unusual smells, odors, or visual emissions were noted during the inspection of the subject property. However, these observations are general in nature and should not be construed as an air quality assessment.

8.7 Radon

According to the USEPA, the general area of the site has a Radon Zone Level of 2, which has a predicted average indoor screening level of between 2.0 picoCuries per liter of air (pCi/l) and 4.0 pCi/l. This level is below the EPA action level of 4.0 pCi/l. Therefore, based upon the reported subsurface characteristics of the area, the subject property exhibits a low potential for radon exposure.

8.8 Railroad Right-of-Ways

No railroad right-of-ways were identified on or adjoining the subject property.

9.0 Adjoining Property Observations

As discussed below, based upon limited observations of the adjoining properties from publicly accessible locations, as well as a review of federal, state, and local environmental databases, none of the adjoining properties appeared to have environmentally impacted the subject property.

9.1 Adjoining Properties Materials Storage

Visual observations of the publicly accessible portions of the adjoining properties did not indicate the exterior storage of hazardous materials or wastes. No indications of spillage or staining were noted in the observable exterior areas of these sites. Additionally, no obvious indications of improper hazardous material storage or unusual or suspicious materials handling or storage practices were observed.

9.2 Adjoining Properties Wastestream Disposal

No unusual or suspicious wastestream disposal activities were observed on the publicly accessible portions of the adjoining properties.

10.0 STATEMENT OF THE ENVIRONMENTAL PROFESSIONALS

This Assessment has been performed for the exclusive use and benefit of the addressee(s) identified on the cover of this report, or agents directly specified by it (them), for the transaction at issue concerning the subject property described in this report. This Assessment shall not be used or relied upon by others without the prior written consent of LGC, and of the addressee(s) named on the cover of this report.

10.1 Statement of Quality Assurance

I have performed this Assessment in accordance with ASTM E1527-2000 and the scope of services identified in this report and the service agreement. The conclusions contained within this Assessment are based upon site conditions I readily observed and were reasonably ascertainable and present at the time of the site inspections. The findings and conclusions represent my best professional opinion and judgment.

The conclusions and recommendations stated in this report are based upon personal observations made by employees/contractors of LGC and upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

Signature of Registered Environmental Assessor – *Kevin M. Clark, REA #06655:*

Signature/Environmental Assessor

REGISTERED ENVIRONMENTAL ASSESSOR-CLASS I
KEVIN M. CLARK
REA 06655
Expires: 6-30-04
STATE OF CALIFORNIA

10.2 ***Statement of Quality Control***

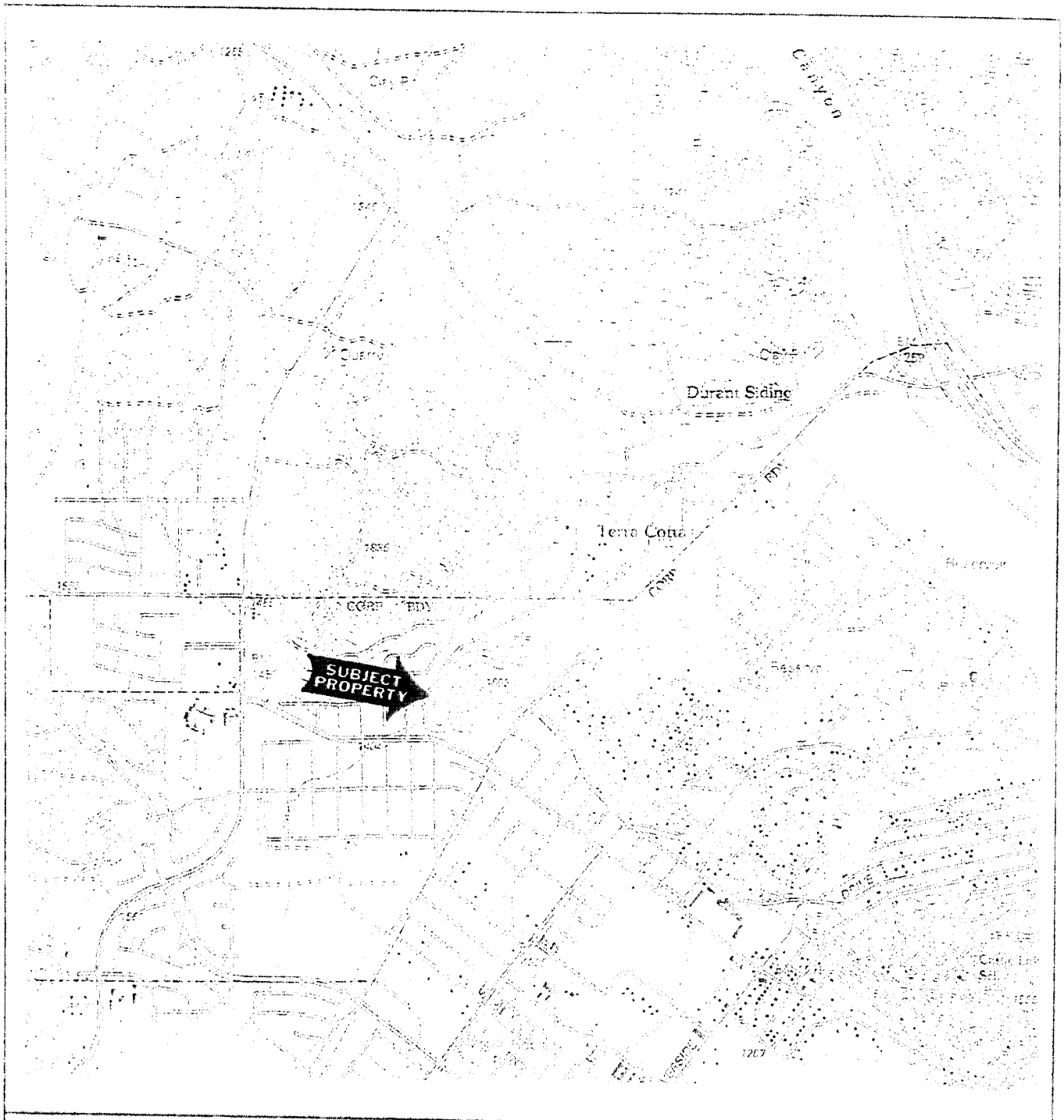
The objective of this Phase I ESA was to ascertain the potential presence or absence of RECs that could impact the subject property, as delineated in the scope of services and limitations identified in this report and in the service agreement. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted environmental consulting practices, in order to accomplish the stated objective.

Signature of Environmental Reviewer – *Thomas Dewey, CA Registered Geologist #1975:*

Signature/Environmental Reviewer

REGISTERED GEOLOGIST
THOMAS DEWEY
NO. 1975
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

SITE MAPS

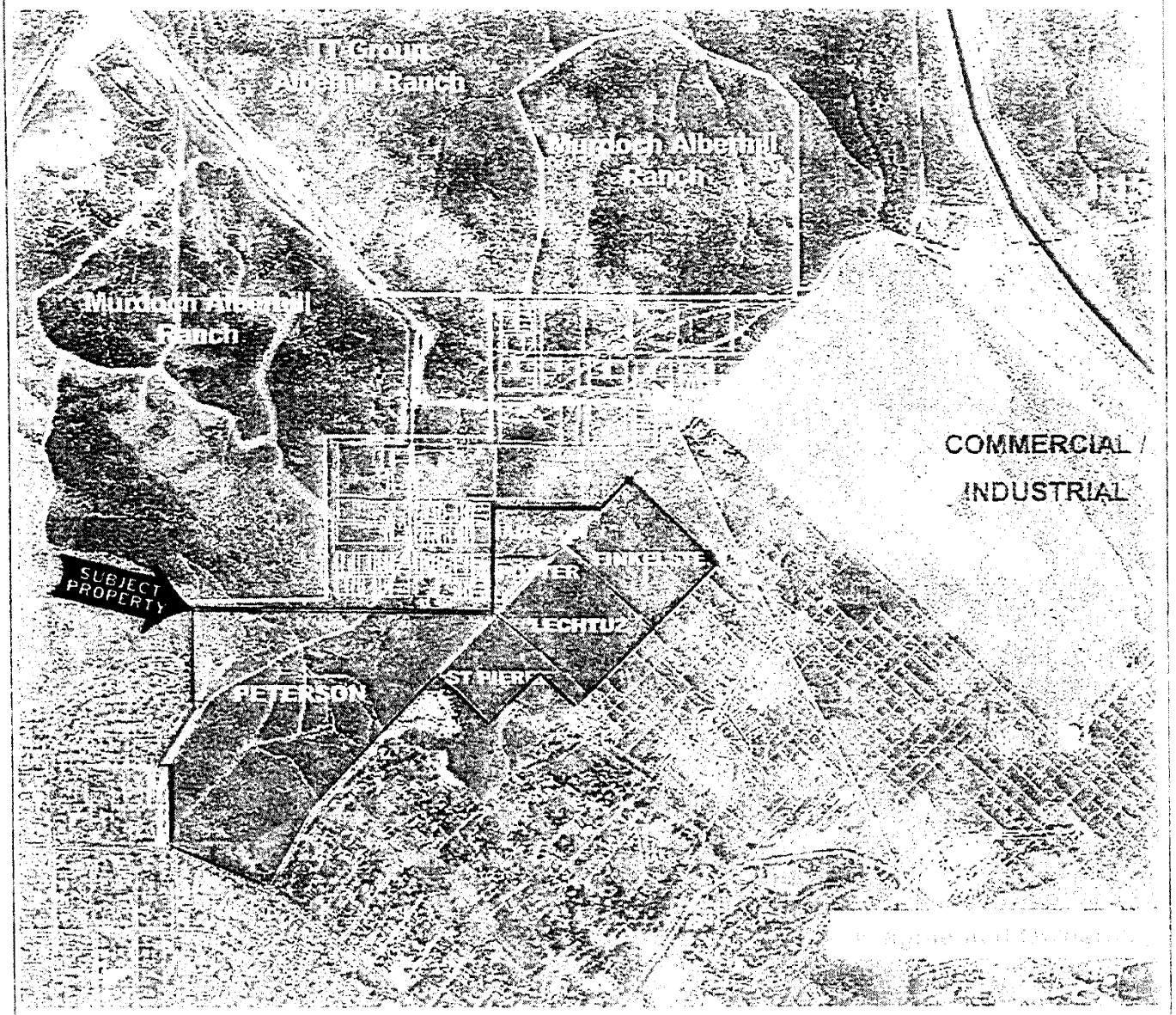


USGS 7.5-Minute Topographic Maps
1997 Alberhill and Lake Elsinore Quadrangles

NORTH

Note: property boundaries approximate

FIGURE: 1



Subject Property
Lake Elsinore, CA

NORTH

Note: property
boundaries approximate

FIGURE: 2

SITE PHOTOGRAPHS

Photo #1:
View of the Peterson parcel from northern boundary

Photo #2:
View of the Finkelstein parcel from eastern boundary

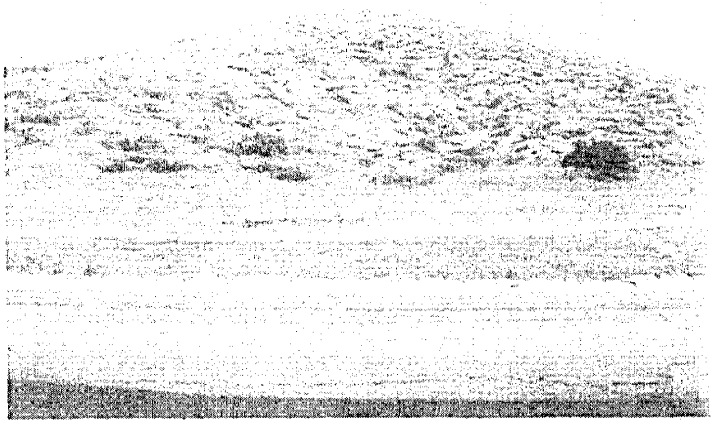


Photo #3:
View of the hill on the Peterson parcel from Lakeshore Drive (southern boundary)

Photo #4:
View of the hill on the Peterson parcel from Terra Cotta Road (western boundary)

Photo #5:
Northern adjoining property from Peterson parcel

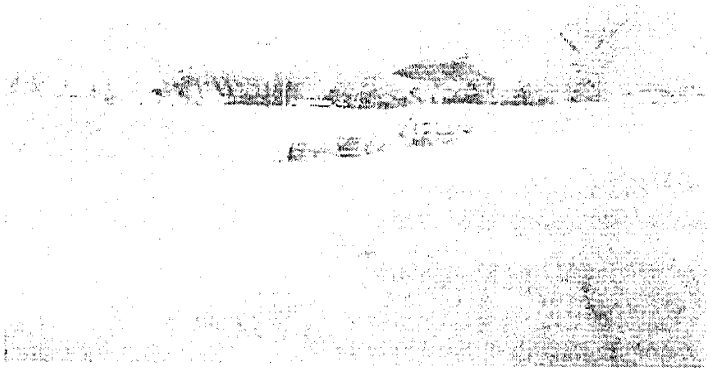


Photo #6:
Finkelstein parcel looking northeast

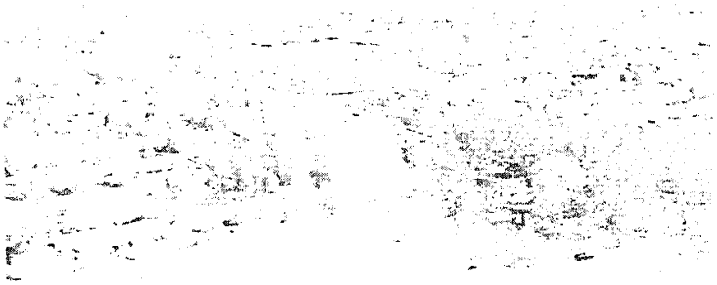


Photo #7:
Southern adjoining property (residences) showing Lake Elsinore in background

Photo #8:
Western adjoining property from the Peterson parcel

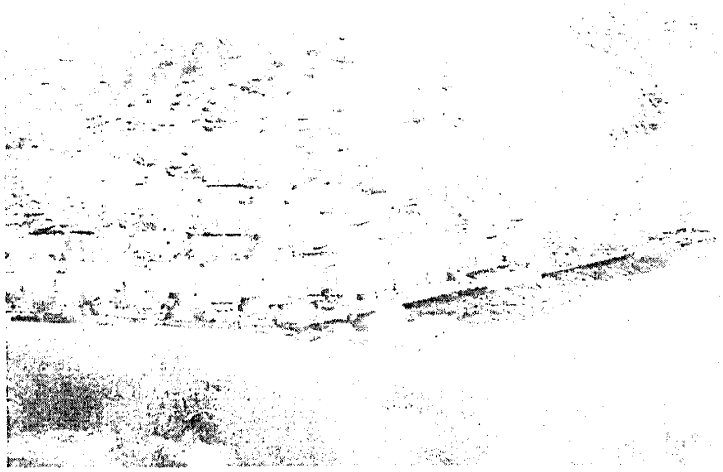


Photo #9:
Entrance to subject property at pavement end of Terra Cotta Road (Peterson parcel)

Photo #10:
Abandoned blue paint-like substance located on the Peterson parcel

Photo #11:
Two abandoned, empty 55-gallon drums located on the St. Pierre parcel

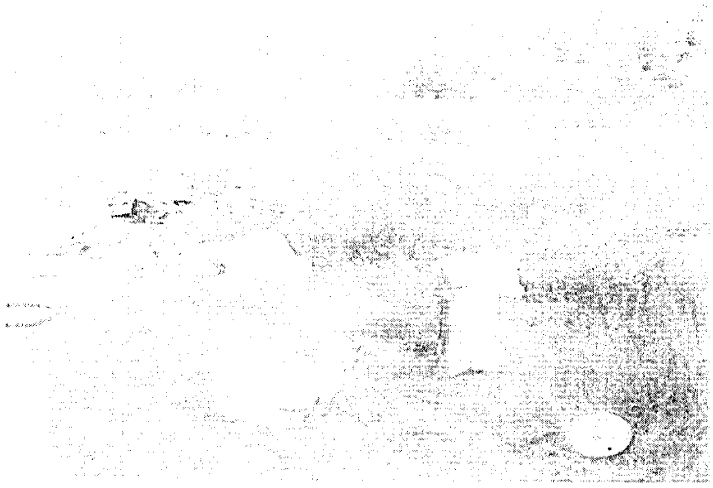


Photo #12:
Typical debris dumped on Peterson parcel

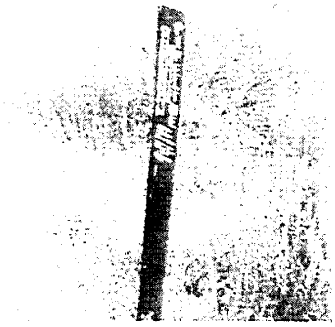


Photo #13:
Water line marker and valve assembly in background (yellow). Peterson parcel

Photo #14:
Irrigation stand pipe located on Peterson parcel

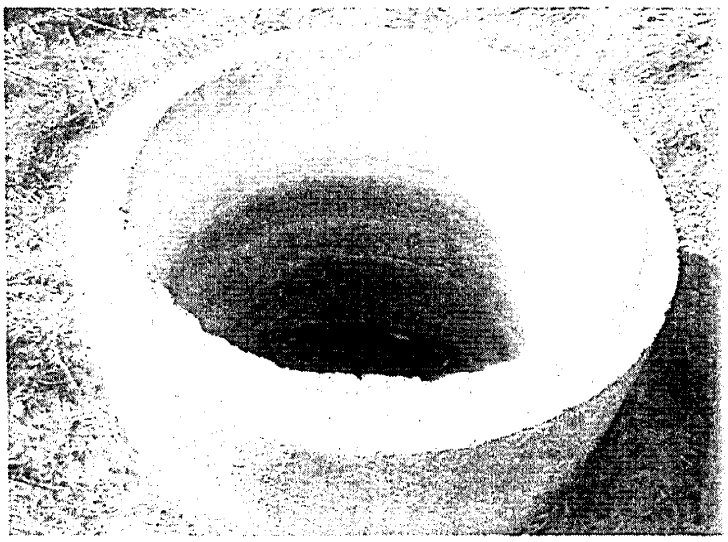


Photo #15:
One of two abandoned steel 5-gallon containers noted on-site

SANBORN MAPS

Environmental Data Resources, Inc.
"Linking Technology with Tradition"

Sanborn® Map Report

Ship To: Kevin Clark
LCG Inland
40935 County Center
Temecula, CA 92591

Order Date: 2/18/2004 **Completion Date:** 2/19/2004
Inquiry #: 1131758.2s
P.O. #: NA
Site Name: Valley Assemblage
Address: NWC of Dryden St & Arnold Ave
City/State: Lake Elsinore, CA 92530
Cross Streets: Terra Cotta Road

Customer Project: 042371
3014927N1C 909-719-1076

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

NO COVERAGE

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REGULATORY DATABASE SEARCH

The EDR Radius Map™ Report

Valley Assemblage
NWC of Dryden St & Arnold Ave
Lake Elsinore, CA 92530

Inquiry Number: 01131758.1r

February 18, 2004

Environmental Data Resources, Inc.

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-NIC

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Map Findings Summary	4
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Orphan Summary	16
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

NWC OF DRYDEN ST & ARNOLD AVE
LAKE ELSINORE, CA 92530

COORDINATES

Latitude (North):	33.696700 - 33' 41' 48.1"
Longitude (West):	117.377300 - 117' 22' 38.3"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	465032.9
UTM Y (Meters):	3728398.0
Elevation:	1396 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	33117-F4 ALBERHILL, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

AWP..... Annual Workplan Sites

EXECUTIVE SUMMARY

Cal-Sites..... Calsites Database
Toxic Pits..... Toxic Pits Cleanup Act Sites
SWF/LF..... Solid Waste Information System
WMUDS/SWAT..... Waste Management Unit Database
CA BOND EXP. PLAN..... Bond Expenditure Plan
UST..... List of Underground Storage Tank Facilities
VCP..... Voluntary Cleanup Program Properties
INDIAN UST..... Underground Storage Tanks on Indian Land
CA FID UST..... Facility Inventory Database

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
HMIRS..... Hazardous Materials Information Reporting System
MLTS..... Material Licensing Tracking System
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
DOD..... Department of Defense Sites
US BROWNFIELDS..... A Listing of Brownfields Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
FTTS INSP..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Aboveground Petroleum Storage Tank Facilities
CLEANERS..... Cleaner Facilities
CA WDS..... Waste Discharge System
DEED..... List of Deed Restrictions
NFA..... No Further Action Determination
EMI..... Emissions Inventory Data
REF..... Unconfirmed Properties Referred to Another Agency
SCH..... School Property Evaluation Program
NFE..... Properties Needing Further Evaluation
CA SLIC..... Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites
VCP..... Voluntary Cleanup Program Properties

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 01/12/2004 has revealed that there is 1 RCRIS-SQG site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ELSINORE PET CLINIC	***16776 LAKESHORE DR STE***	***1/4 - 1/2 S***	***4***	***8***

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there is 1 CHMIRS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
Not reported	LASH / HERSH	1/4 - 1/2 SSE	2	6

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there is 1 Cortese site within

approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LAKE ELSINORE, CITY OF/RU	*29051 ROBB*	*1/2 - 1 WNW*	*B10*	*12*

NOTIFY 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data come from the State Water Resources Control Board's Proposition 65 database.

A review of the Notify 65 list, as provided by EDR, has revealed that there is 1 Notify 65 site within approximately 1.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
KEN HOWARD	*17070 SHRIER*	*1 - 2 ESE*	*11*	*12*

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 04/02/2003 has revealed that there are 2 LUST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LAKE ELSINORE, CITY OF/RUIZ	29051 ROBB ROAD	1/2 - 1 WNW	B9	10
LAKE ELSINORE, CITY OF/RU	*29051 ROBB*	*1/2 - 1 WNW*	*B10*	*12*

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TEEPEE RANCH STORE	29251 ROBB RD.	1/2 - 1 W	8	10

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/23/2003 has revealed that there is 1

EXECUTIVE SUMMARY

FINDS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ELSINORE PET CLINIC	*16776 LAKESHORE DR STE*	*1/4 - 1/2 S*	*4*	*8*

STATE OR LOCAL ASTM SUPPLEMENTAL

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, has revealed that there are 6 HAZNET sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ABBACY VENTURES 98 LLC	31307 TERRACOTTA RD	1/4 - 1/2 SW	1	6
HUD INTOWN PROPERTIES	16395 STEVENS AVE	1/4 - 1/2 SE	3	7
INTOWN PROPERTIES	240 OHIO ST	1/4 - 1/2 WSW	6	9

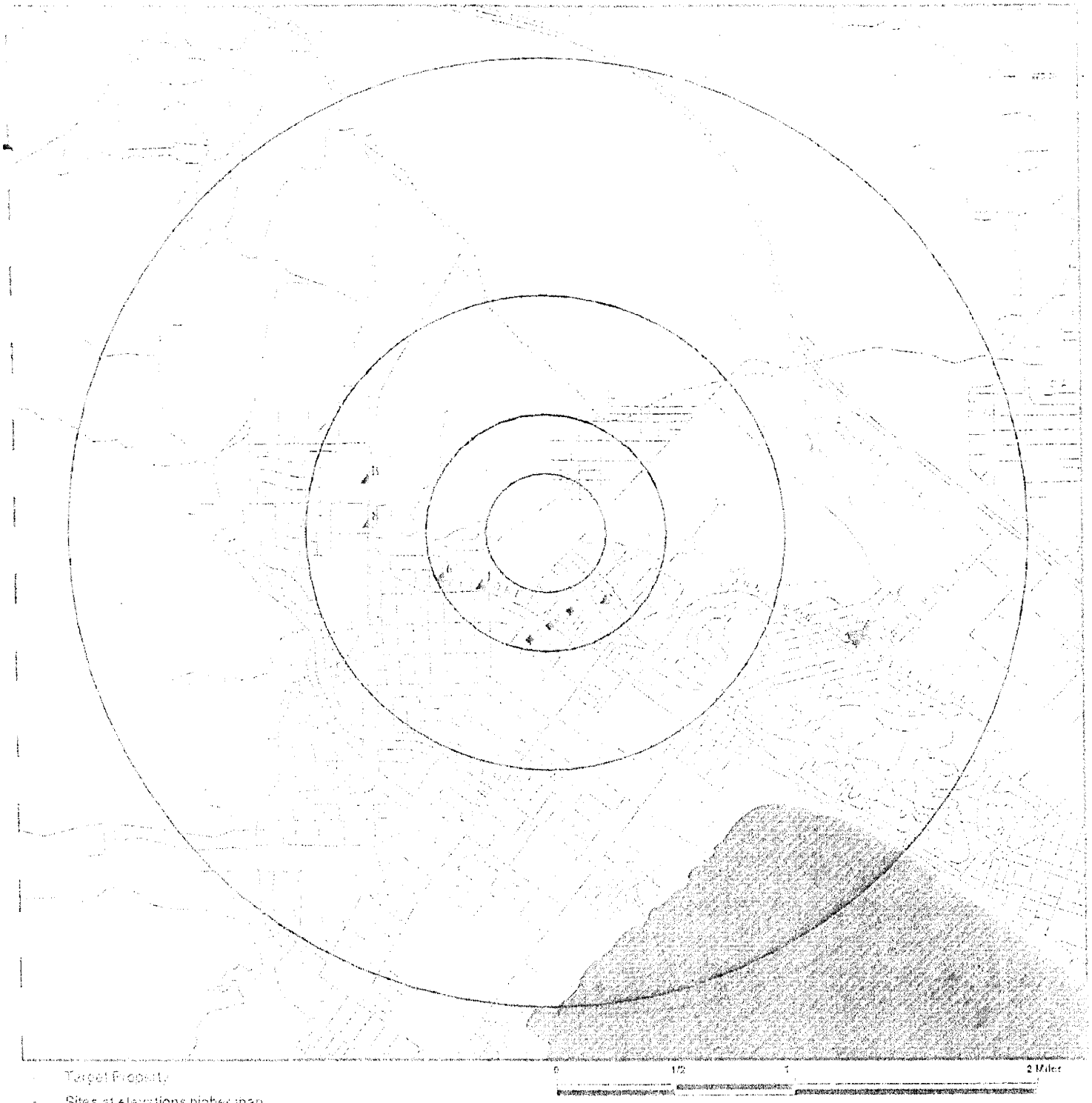
Lower Elevation	Address	Dist / Dir	Map ID	Page
ELSINORE PET CLINIC	*16776 LAKESHORE DR STE*	*1/4 - 1/2 S*	*4*	*8*
HUD INTOWN PROPERTIES	254 WHITE OAK RD	1/4 - 1/2 S	A5	9
DEPARTMENT OF HOUSING & URBAN	224 BROADWAY	1/4 - 1/2 S	A7	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
TOP CLEANERS	HAZNET, CLEANERS
TOP CLEANERS	CLEANERS
TOP CLEANERS	CLEANERS
TOP CLEANERS	CLEANERS
TOP CLEANERS	CLEANERS
TEXACO	LUST, Cortese
KENNARD	SWF/LF
ELSINORE SANITARY LANDFILL	SWF/LF
CITY OF LAKE ELSINORE	LUST
LOS PINOS CONSERVATION CAMP	HAZNET
PRESSING TIME CLEANERS	HAZNET
ARTITECTS CO	HAZNET
DAVID PABBLON	HAZNET
CR&R INC	HAZNET
JOSEPH COOMBS	HAZNET
ELSINORE VALLEY MUNICIPAL WATER DIST	HAZNET
WYROC	FINDS, EMI
LAKE ELSINORE, LAKE STREET	CA WDS
MIDDLE SCHOOL NO. 5	SCH

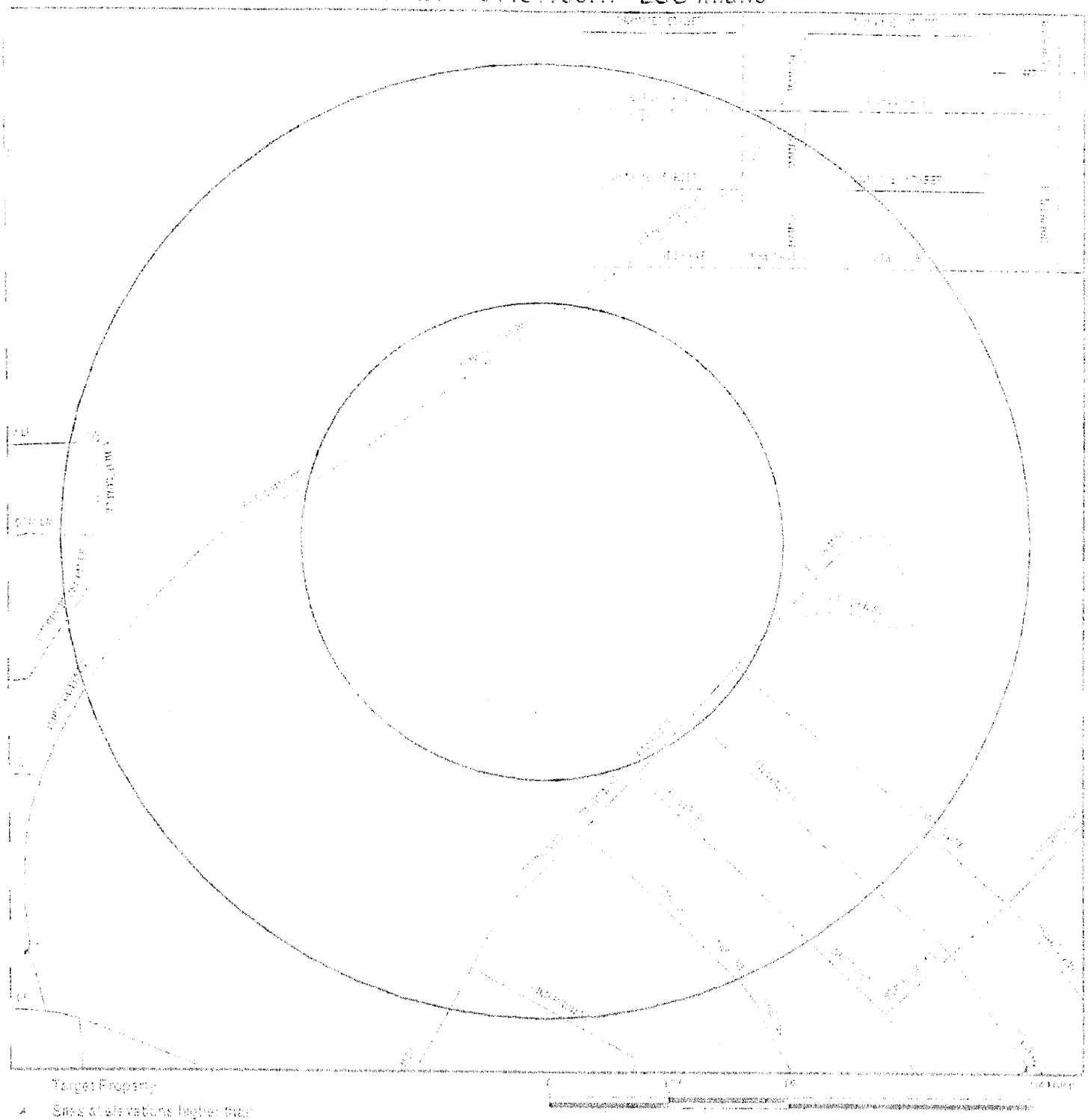
OVERVIEW MAP - 01131758.1r - LCG Inland



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

TARGET PROPERTY:	Valley Assemblage	CUSTOMER:	LCG Inland
ADDRESS:	NWC of Dryden St & Arnold Ave	CONTACT:	Kevin Clark
CITY/STATE/ZIP:	Lake Elsinore CA 92530	INQUIRY #:	01131758.1r
LAT/LONG:	33.6967 / 117.3773	DATE:	February 18, 2004 6:43 pm

DETAIL MAP - 01131758.1r - LCG Inland



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Coal Gasification Sites

Sensitive Receptors

National Priorities List Sites

Landfill Sites

Dept. Defense Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

Areas of Concern

TARGET PROPERTY:	Valley Assemblage	CUSTOMER:	LCG Inland
ADDRESS:	NWC of Dryden St & Arnold Ave	CONTACT:	Kevin Clark
CITY/STATE/ZIP:	Lake Elsinore CA 92530	INQUIRY #:	01131758.1r
LAT/LONG:	33.6967 / 117.3773	DATE:	February 18, 2004 5:44 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	0	1	0	NR	1
ERNS		0.500	0	0	0	NR	NR	0
STATE ASTM STANDARD								
AWP		1.500	0	0	0	0	0	0
Cal-Sites		1.500	0	0	0	0	0	0
CHMIRS		0.500	0	0	1	NR	NR	1
Cortese		1.000	0	0	0	1	NR	1
Notify 65		1.500	0	0	0	0	1	1
Toxic Pits		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
WMUDS/SWAT		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	2	NR	2
CA Bond Exp. Plan		1.500	0	0	0	0	0	0
UST		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
INDIAN UST		0.750	0	0	0	0	NR	0
CA FID UST		0.750	0	0	0	0	NR	0
HIST UST		0.750	0	0	0	1	NR	1
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.500	0	0	0	0	0	0
ROD		1.500	0	0	0	0	0	0
Delisted NPL		1.500	0	0	0	0	0	0
FINDS		0.500	0	0	1	NR	NR	1
HMIRS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
MINES		0.750	0	0	0	0	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
DOD		1.500	0	0	0	0	0	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
FTTS		0.500	0	0	0	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CLEANERS		0.750	0	0	0	0	NR	0
CA WDS		0.500	0	0	0	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
NFA		0.750	0	0	0	0	NR	0
EMI		0.500	0	0	0	NR	NR	0
REF		0.750	0	0	0	0	NR	0
SCH		0.750	0	0	0	0	NR	0
NFE		0.750	0	0	0	0	NR	0
CA SLIC		1.000	0	0	0	0	NR	0
HAZNET		0.500	0	0	6	NR	NR	6
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

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1 SW 1/4-1/2 1811 ft. — **ABBACY VENTURES 98 LLC**, **31307 TERRACOTTA RD**, **LAKE ELSINORE, CA 92530** — **HAZNET** — **S106085998** / **N/A**

Relative: Higher

Actual: 1427 ft.

HAZNET:

Gepaid:	CAC002485863
TSD EPA ID:	Not reported
Gen County:	Riverside
Tsd County:	99
Tons:	33.71
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Contact:	JOSEPH CLANCEY/CC SERV INC
Telephone:	(619) 424-3220
Mailing Address:	361 RAILROAD CNY RD STE C LAKE ELSINORE, CA 92530
County	Not reported

Gepaid:	CAC002485863
TSD EPA ID:	Not reported
Gen County:	Riverside
Tsd County:	Los Angeles
Tons:	0.54
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Transfer Station
Contact:	JOSEPH CLANCEY/CC SERV INC
Telephone:	(619) 424-3220
Mailing Address:	361 RAILROAD CNY RD STE C LAKE ELSINORE, CA 92530
County	Not reported

Gepaid:	CAC002485863
TSD EPA ID:	Not reported
Gen County:	Riverside
Tsd County:	San Bernardino
Tons:	0.22
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Transfer Station
Contact:	JOSEPH CLANCEY/CC SERV INC
Telephone:	(619) 424-3220
Mailing Address:	361 RAILROAD CNY RD STE C LAKE ELSINORE, CA 92530
County	Not reported

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2 SSE 1/4-1/2 1817 ft. — **LASH / HERSH**, **LAKE ELSINORE, CA 92330** — **CHMIRS** — **S100276187** / **N/A**

Relative: Lower

Actual: 1357 ft.

CHMIRS:

OES Control Number:	9119217
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	County/City Road
Incident Date:	13-SEP-91
Date Completed:	13-SEP-91
Time Completed :	1341

(Continued) S100278187

Agency Id Number :	33080
Agency Incident Number :	37941
OES Incident Number :	9119217
Time Notified :	1044
Surrounding Area :	400
Estimated Temperature :	70
Property Management :	C
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	1
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	DANIEL TALBOT 1553
Report Date :	13-SEP-91
Comments :	No
Facility Telephone Number :	714 657-3183
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

3
SE
1/4-1/2
1958 ft.

HUD INTOWN PROPERTIES
16395 STEVENS AVE
LAKE ELSINORE, CA 92501

HAZNET S103968810
N/A

Relative:
Higher

Actual:
1442 ft.

HAZNET:

Gepaid:	CAC002119512
TSD EPA ID:	CAD028409019
Gen County:	Riverside
Tsd County:	Los Angeles
Tons:	.0150
Waste Category:	Household waste
Disposal Method:	Transfer Station
Contact:	HUD
Telephone:	(000) 000-0000

HUD INTOWN PROPERTIES (Continued) **S103968810**

Mailing Address: 6850 BROCKTON AVE # 215
RIVERSIDE, CA 92501
County Riverside

Gepaid: CAC002119512
TSD EPA ID: CAD028409019
Gen County: Riverside
Tsd County: Los Angeles
Tons: .0125
Waste Category: Household waste
Disposal Method: Treatment, Tank
Contact: HUD
Telephone: (000) 000-0000
Mailing Address: 6850 BROCKTON AVE # 215
RIVERSIDE, CA 92501
County Riverside

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4 South 1/4-1/2 2065 ft. | **ELSINORE PET CLINIC** | **RCRIS-SQG** **1000820182**
16776 LAKESHORE DR STE F AND G | **FINDS** **CAD983662099**
LAKE ELSINORE, CA 92530 | **HAZNET**

Relative: Lower

Actual: 1352 ft.

RCRIS:
Owner: JERRY B RATTERREE DVM
(909) 674-7866
EPA ID: CAD983662099
Contact: ANN POTENZA
(909) 674-7866

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAD983662099
TSD EPA ID: Not reported
Gen County: Riverside
Tsd County: Los Angeles
Tons: 0.05
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: ANN POTENZA
Telephone: (909) 674-7866
Mailing Address: 16770 LAKESHORE DR STE F
LAKE ELSINORE, CA 92530
County Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A5 South 1/4-1/2 2405 ft.	**HUD INTOWN PROPERTIES** **254 WHITE OAK RD** **LAKE ELSINORE, CA 92530**	**HAZNET**	**S104570107** **N/A**

Site 1 of 2 in cluster A

Relative: Lower

Actual: 1351 ft.

HAZNET:

Gepaid:	CAC002130528
TSD EPA ID:	CAD028209109
Gen County:	Riverside
Tsd County:	0
Tons:	0.0208
Waste Category:	Household waste
Disposal Method:	Treatment, Tank
Contact:	HUD
Telephone:	(000) 000-0000
Mailing Address:	6850 BROCKTON AVE # 215 RIVERSIDE, CA 92506
County	Riverside

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6 WSW 1/4-1/2 2476 ft.	**INTOWN PROPERTIES** **240 OHIO ST** **LAKE ELSINORE, CA 92330**	**HAZNET**	**S103645021** **N/A**

Relative: Higher

Actual: 1420 ft.

HAZNET:

Gepaid:	CAC000744544
TSD EPA ID:	CAD000088252
Gen County:	Riverside
Tsd County:	Los Angeles
Tons:	.0833
Waste Category:	Household waste
Disposal Method:	Transfer Station
Contact:	INTOWN PROPERTIES
Telephone:	(000) 000-0000
Mailing Address:	6850 BROCKTON AVE STE 215 RIVERSIDE, CA 92506
County	Riverside

A7 South 1/4-1/2 2530 ft.	**DEPARTMENT OF HOUSING & URBAN DEVELOPMNT** **224 BROADWAY** **LAKE ELSINORE, CA 92330**	**HAZNET**	**S102803800** **N/A**

Site 2 of 2 in cluster A

Relative: Lower

Actual: 1346 ft.

HAZNET:

Gepaid:	CAC001046224
TSD EPA ID:	CAD000088252
Gen County:	Riverside
Tsd County:	Los Angeles
Tons:	.0208
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Transfer Station
Contact:	H.U.D.
Telephone:	(000) 000-0000
Mailing Address:	6850 BROCKTON STE 215 RIVERSIDE, CA 92506
County	Riverside

DEPARTMENT OF HOUSING & URBAN DEVELOPMNT (Continued) — S102803800

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8 West 1/2-1 3883 ft. — **TEEPEE RANCH STORE**, **29251 ROBB RD.**, **LAKE ELSINORE, CA 92330** — HIST UST — U001574794, N/A

Relative: Higher
Actual: 1475 ft.

UST HIST:

Facility ID:	12197	Facility Status:	Not reported
Total Tanks:	3	Region:	STATE
Owner Name:	TEE PEE RANCH--CHARLES O. PEAS	Box Number:	Not reported
Owner Address:	29051 ROBB RD., LAKE ELSINORE, CA 92330		

B9 WNW 1/2-1 4079 ft. — **LAKE ELSINORE, CITY OF/RUIZ**, **29051 ROBB ROAD**, **LAKE ELSINORE, CA 92530** — LUST — S101300475, N/A

Site 1 of 2 in cluster B

Relative: Higher
Actual: 1519 ft.

State LUST:

Cross Street:	LAKESHORE		
Qty Leaked:	Not reported		
Case Number	083302002T		
Reg Board:	8		
Chemical:	Misc. Motor Vehicle Fuels		
Lead Agency:	Local Agency		
Local Agency :	0		
Case Type:	Soil only		
Status:	Case Closed		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	11/25/1994		
Release Date:	11/25/1991		
Cleanup Fund Id :	Not reported		
Discover Date :	11/05/1991		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	01/06/1992		
Funding:	Not reported		
Staff Initials:	UNK		
How Discovered:	Tank Closure		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	911099		
Beneficial:	Not reported		
Staff :	CAB		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		

LAKE ELSINORE, CITY OF/RUIZ (Continued) S101300475

Hydr Basin #: Not reported
Operator : TIM SHELL
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : 12/14/1994
Stop Date : 10/31/1991
Work Suspended :Not reported
Responsible PartyCITY OF LAKE ELSINORE
RP Address: 130 S. MAIN STREET LAKE ELSINORE CA 92530
Global Id: T0606500258
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 8:
Region: 8
Substance: 12036 Cross Street: LAKESHORE
Regional Board: 08
Local Case Num: 911099
Facility Status: Case Closed
Staff: CARL BERHHARDT
Lead Agency: Local Agency
Local Agency: 33000L
Qty Leaked: Not reported
County: Riverside
Review Date: Not reported Confirm Leak: Not reported
Workplan: Not reported Prelim Assess: Not reported
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported Monitoring: Not reported
Close Date: 11/25/1994
Cleanup Fund Id : Not reported
Discover Date : 11/05/1991
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 01/06/1992
Funding: Not reported
Staff Initials: UNK
How Discovered: Tank Closure
How Stopped: Not reported
Interim : Not reported
Lat/Lon : 33.6965015 / -117.390249
Leak Cause: UNK
Leak Source: UNK
Beneficial: Not reported
MTBE Date : Not reported
MTBE Tested : NRO
Max MTBE GW : Not reported
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: ELSINORE (8-4)
Oversight Prgm : LUST

LAKE ELSINORE, CITY OF/RUIZ (Continued) **S101300475**

Priority : Not reported
Work Suspended Not reported
Waste Disch Global Id: T0606500258
MTBE Class: *
Case Type: Soil only
How Stopped Date: 10/31/1991
Organization Name: Not reported
Contact Person: Not reported
MTBE Concentration: 0
MTBE Fuel: 0
Case Number: 083302002T
Code Name: RIVERSIDE
Agency Name: COUNTY OF RIVERSIDE
Priority: Not reported
State Expalnation: CASE CLOSED
Substance: MISC MVF
Staff: CARL BERHHARDT
Case Type: S
Summary: Not reported

B10 **LAKE ELSINORE, CITY OF/RU** **LUST** **S103821033**
WNW **29051 ROBB** **Cortese** **N/A**
1/2-1 **LAKE ELSINORE, CA 92530**
4079 ft.

Site 2 of 2 in cluster B

Relative:
Higher

LUST Region RV:
Facility ID: 911099
Region: RIVERSIDE
Status: Case Closed
Case Type: Soil only

Actual:
1519 ft.

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

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11 **KEN HOWARD** **Notify 65** **S100179195**
ESE **17070 SHRIER** **LUST** **N/A**
> 1 **LAKE ELSINORE, CA 90056** **Cortese**
7240 ft.

Relative:
Lower

State LUST:
Cross Street: HERBERT
Qty Leaked: Not reported
Case Number 083301298T
Reg Board: 8
Chemical: Unleaded Gasoline
Lead Agency: Local Agency
Local Agency : 0
Case Type: Soil only
Status: Case Closed
Review Date: Not reported
Workplan: 8/3/89
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 08/02/1990
Release Date: 07/13/1989
Cleanup Fund Id : Not reported

Actual:
1249 ft.

Confirm Leak: Not reported
Prelim Assess: 8/3/89
Remed Plan: Not reported

KEN HOWARD (Continued) **S100179195**

Discover Date : 02/25/1989
Enforcement Dt : 1/1/85
Enf Type: None Taken
Enter Date : 09/06/1989
Funding: State Funds
Staff Initials: UNK
How Discovered: Tank Closure
How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 89719
Beneficial: Not reported
Staff : PAH
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : VACANT LOT
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : 08/02/1990
Stop Date : 06/10/1989
Work Suspended Not reported
Responsible PartyKEN HOWARD
RP Address: 17070 SHRIER DRIVE, LAKE ELSINORE, CA 92330
Global Id: T0606500149
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 8:
Region: 8
Substance: 12031 Cross Street: HERBERT
Regional Board: 08
Local Case Num: 89719
Facility Status: Case Closed
Staff: PATRICIA HANNON
Lead Agency: Local Agency
Local Agency: 33000L
Qty Leaked: Not reported
County: Riverside
Review Date: Not reported Confirm Leak: Not reported
Workplan: 08/03/1989 Prelim Assess: 08/03/1989
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported Monitoring: Not reported
Close Date: 08/02/1990
Cleanup Fund Id : Not reported

KEN HOWARD (Continued) **S100179195**

Discover Date : 02/25/1989
Enforcement Dt : 1/1/65
Enf Type: None Taken
Enter Date : 09/09/1989
Funding: State Funds
Staff Initials: UNK
How Discovered: Tank Closure
How Stopped: Not reported
Interim : Not reported
Lat/Lon : 33.6880369 / -117.362292
Leak Cause: UNK
Leak Source: Tank
Beneficial: Not reported
MTBE Date : Not reported
MTBE Tested : NT
Max MTBE GW : Not reported
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: ELSINORE (8-4)
Oversight Prgm : LUST
Priority : Not reported
Work Suspended :Not reported
Waste Disch Global Id: T0606500149
MTBE Class: *
Case Type: Soil only
How Stopped Date: 6/10/1989
Organization Name: Not reported
Contact Person: Not reported
MTBE Concentration: 0
MTBE Fuel: 1
Case Number: 08330129BT
Code Name: RIVERSIDE
Agency Name: COUNTY OF RIVERSIDE
Priority: Not reported
State Explanation: CASE CLOSED
Substance: UNLEAD GASOLINE
Staff: PATRICIA HANNON
Case Type: S
Summary: Not reported

LUST Region RV:
Facility ID: 89719
Region: RIVERSIDE
Status: Case Closed
Case Type: Soil only

NOTIFY 65:
Date Reported: Not reported Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 90056

CORTESE:
Region: CORTESE
Fac Address 2: 17070 SHRIER DR

KEN HOWARD (Continued)

S100179195

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ELSINORE	S103656914	LOS PINOS CONSERVATION CAMP	29251 ORTEGA HWY	92530	HAZNET
LAKE ELSINORE	S100871216	PRESSING TIME CLEANERS	16746 A / B LAKESHORE DR	92530	HAZNET
LAKE ELSINORE	S105528746	MIDDLE SCHOOL NO. 5	18690 / 18730 GRAND AVENUE	92530	SCH
LAKE ELSINORE	S103550770	ARTITECTS CO	3001 CLEMENT ST	92530	HAZNET
LAKE ELSINORE	S103679362	DAVID PABBLON	NE CORNER OF HWY 74/CAMBERN	92530	HAZNET
LAKE ELSINORE	S105247955	KENNARD	END OF SALTON ROAD		SWF/LF
LAKE ELSINORE	S102361678	ELSINORE SANITARY LANDFILL	2250 FRANKLIN STREET		SWF/LF
LAKE ELSINORE	S103678804	CR&R INC	GRAND AVE ACROSS FROM VAIL ST	92530	HAZNET
LAKE ELSINORE	1006824155	WYROC	2000 LAKE ST	92530	FINDS, EMI
LAKE ELSINORE	S106105137	LAKE ELSINORE, LAKE STREET	3100 LAKE ST		CA WDS
LAKE ELSINORE	S104582723	TOP CLEANERS	16746 LAKESHORE DR STE A/B	92530	HAZNET, CLEANERS
LAKE ELSINORE	S106077123	TOP CLEANERS	16758 LAKESHORE DR STE A	92530	CLEANERS
LAKE ELSINORE	S106077290	TOP CLEANERS	16758 LAKESHORE DR STE A	92530	CLEANERS
LAKE ELSINORE	S106077461	TOP CLEANERS	16758 LAKESHORE DR STE A	92530	CLEANERS
LAKE ELSINORE	S106077731	TOP CLEANERS	16758 LAKESHORE DR STE A	92530	CLEANERS
LAKE ELSINORE	S103651703	JOSEPH COOMBS	310088 MACHADO ST	92530	HAZNET
LAKE ELSINORE	S103820901	CITY OF LAKE ELSINORE	161 MAIN ST	92530	LUST
LAKE ELSINORE	S104759433	TEXACO	301 MAIN ST	92530	LUST, Cortese
LAKE ELSINORE	S104567968	ELSINORE VALLEY MUNICIPAL WATER DIST	13200 SHOTGUN TRAIL		HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/03/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 11/03/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 6
Telephone: 214-655-6659

EPA Region 8
Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 10/14/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/17/03
Date Made Active at EDR: 02/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/22/03
Elapsed ASTM days: 42
Date of Last EDR Contact: 12/22/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 11/17/03
Date Made Active at EDR: 02/02/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/22/03
Elapsed ASTM days: 42
Date of Last EDR Contact: 12/22/03

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/03
Date Made Active at EDR: 02/02/04
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 12/26/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/08/03

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 01/12/04
Date Made Active at EDR: 02/10/04
Database Release Frequency: Varies

Date of Data Arrival at EDR: 01/19/04
Elapsed ASTM days: 22
Date of Last EDR Contact: 01/19/04

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/02
Date Made Active at EDR: 02/03/03
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 01/26/04

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/09/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/21/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/18/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 11/25/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/30/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-648-5920
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfielos Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/17/03
Date of Next Scheduled EDR Contact: 03/15/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A
Database Release Frequency: N/A
Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually
Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years
Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 10/10/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually
Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/24/03

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 56
Date of Last EDR Contact: 01/29/04

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 01/19/04

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/03/03

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/16/03
Elapsed ASTM days: 23
Date of Last EDR Contact: 12/16/03

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 12/09/03

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/25/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 9
Date of Last EDR Contact: 01/12/04

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA. UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/30/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 14
Date of Last EDR Contact: 01/12/04

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Date Made Active at EDR: 12/23/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 22
Date of Last EDR Contact: 12/01/03

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 12/05/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 12/05/03
Elapsed ASTM days: 34
Date of Last EDR Contact: 11/24/03

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 11/26/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/07/04
Date of Next Scheduled EDR Contact: 04/05/04

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1571
Sites which have been issued waste discharge requirements.

Date of Government Version: 12/15/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 01/05/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

NFA: No Further Action Determination
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/01
Database Release Frequency: Varies

Date of Last EDR Contact: 01/23/04
Date of Next Scheduled EDR Contact: 04/19/04

REF: Unconfirmed Properties Referred to Another Agency
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

NFE: Properties Needing Further Evaluation
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA in Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

HAZNET: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/02
Database Release Frequency: Annually

Date of Last EDR Contact: 11/11/03
Date of Next Scheduled EDR Contact: 02/09/04

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/09/03
Date of Next Scheduled EDR Contact: 04/26/04

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/09/03
Date of Next Scheduled EDR Contact: 04/26/04

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

FRESNO COUNTY:

CUFA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 02/09/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 07/25/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/08/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/03/03
Database Release Frequency: Varies

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/16/04

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-524-2236

Date of Government Version: 09/11/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 03/28/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/24/03
Date of Next Scheduled EDR Contact: 02/23/04

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 09/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/02
Database Release Frequency: Varies

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 08/19/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/06/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/25/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/06/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/19/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 11/06/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 10/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/23/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 01/08/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00
Database Release Frequency: Varies

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/31/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/09/04
Date of Next Scheduled EDR Contact: 04/05/04

SAN FRANCISCO COUNTY:

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 12/09/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 12/09/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 11/24/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/26/04
Date of Next Scheduled EDR Contact: 04/12/04

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 11/13/03
Database Release Frequency: Annually

Date of Last EDR Contact: 01/12/04
Date of Next Scheduled EDR Contact: 04/12/04

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 12/31/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 10/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 12/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 12/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 01/26/04
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/26/04
Date of Next Scheduled EDR Contact: 04/26/04

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 07/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/09/04
Date of Next Scheduled EDR Contact: 04/05/04

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02
Database Release Frequency: Annually
Date of Last EDR Contact: 11/26/03
Date of Next Scheduled EDR Contact: 02/23/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/12/04
Date of Next Scheduled EDR Contact: 04/12/04

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 10/29/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 05/28/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/14/04
Date of Next Scheduled EDR Contact: 04/12/04

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/19/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 01/23/04
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 12/31/03
Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/03
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 01/21/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 07/02/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 01/12/04
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 01/19/04
Date of Next Scheduled EDR Contact: 04/19/04

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 04/03/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 03/28/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/14/04
Date of Next Scheduled EDR Contact: 04/12/04

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/16/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 01/28/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/26/04
Date of Next Scheduled EDR Contact: 04/26/04

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 01/08/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 01/06/04
Date of Next Scheduled EDR Contact: 04/05/04

SLIC REG 6L: SLIC Sites
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 09/09/03
Database Release Frequency: Varies
Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 05/08/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 01/09/04
Date of Next Scheduled EDR Contact: 04/05/04

SLIC REG 7: SLIC List
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491

Date of Government Version: 12/19/03
Database Release Frequency: Varies

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/07/04
Date of Next Scheduled EDR Contact: 04/05/04

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 12/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/04/04

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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FILE REVIEW INFORMATION

PHASE I ENVIRONMENTAL ASSESSMENT

Riverside County Assessor's No. 389-190-002
Vacant parcel 82.49 acres
16000 Lake Shore Drive (Approximate)
Lake Elsinore, California 92677

September 2003

Prepared for:

Mr. Mathew Brady
Beazer Homes Southern California
1100 Town and Country, Ste 100
Orange, California 92868

Prepared by:

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Santa Ana, CA 92705
(714) 560-8200
(714)-560-8244 (fax)
Project No. EM 2494

Prepared by:

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Senior Geologist

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Senior Project Manager

Reviewed by:

Edward Batille
Director

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EXECUTIVE SUMMARY

Tait Environmental Management, Inc. (TEM) was retained by Mr. Matthew Brady, on behalf of the Beazer Homes, to conduct a Phase I Environmental Assessment of a vacant 82.49-acre parcel located at 16000 Lake Shore Drive (approximate), Lake Elsinore, California 92530. The objective of the assessment was to provide an independent professional opinion as to whether recognized environmental conditions, as defined by ASTM, exist at this SITE.

The SITE consists of a vacant 82.49-acre parcel that is currently undeveloped. The parcel is located Section 35, Range 5 West, Township 5 South, Lake Elsinore U.S.G.S. quadrangle map. The Riverside County Assessor's number is 389-190-002.

There are no utilities or structures on the SITE. The property has a system of dirt trails present but the area is not currently used.

The property is currently undeveloped. Residential development surrounds the SITE to the east, southeast, south, southwest, west and northwest. The areas to the north and northeast are undeveloped.

In the professional opinion of Tait Environmental Management, Inc., an appropriate level of inquiry has been made into the previous ownership and uses of the property consistent with good commercial and customary practice in an effort to minimize liability, and no evidence or indication of Recognized Environmental Conditions has been revealed. No further investigation is deemed necessary at this time.

PHASE I ENVIRONMENTAL ASSESSMENT
82.49 ACRE PARCEL
16000 LAKE SHORE DRIVE (APPROXIMATE)
LAKE ELSINORE, CALIFORNIA 92530

1.0 INTRODUCTION AND SCOPE OF WORK

1.1 General

Site Location (see also Section 2.0)

Site: Vacant 82.49 acre parcel (Riv. County Assessors # 389-190-002

City, State: Lake Elsinore, California 92530

1.2 Purpose

This Environmental Site Assessment (ESA, also referred to as the Phase I report) meets or exceeds the requirements of the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-00.". The purpose of this assessment was to perform an evaluation for the potential presence of hazardous and/or toxic materials (otherwise known as "Recognized Environmental Conditions")[1] at the site. This report is made pursuant to an inquiry into the prior ownership and uses of the site, consistent with good commercial and customary practices appropriate to a commercial purchaser or fee owner of real property.

---

[1] Recognized environmental conditions (RECs) are defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate environmental agencies.

1.3 Scope of Services

The scope of services for the project included the following:

- A reconnaissance survey of the Site and surrounding area on September 2, 2003 to evaluate present conditions.

- An evaluation of the historical SITE use, by reviewing the following sources:
  - Aerial photographs reasonably available from public sources;
  - Historical United States Geological Survey (USGS) topographic maps;
  - Building Permits;
  - Historic insurance company (Sanborn) maps as available for the SITE;

- A review of the compliance history of the SITE, and of any adjacent sites, identified by the regulatory database survey;

- A review of records reasonably available from appropriate federal, state and local regulatory agencies for documented soil and/or groundwater contamination investigations conducted at the SITE and the vicinity, as defined in the ASTM standard;

- A review of available documents from local agencies (Table 1) to evaluate development of the SITE and, where reasonably available or relevant to the SITE, the adjacent properties;

- Interviews with personnel familiar with the SITE and surrounding areas;

- A review of information regarding the physical setting of the SITE, including:
  - The current USGS 7.5 minute topographic map;
  - Geology information published by the California Department of Mines and Geology;
  - Groundwater and water well information as available;

- Presentation of the aforementioned services in this report.

1.4 User Reliance/Warranties

The information and opinions rendered in this report are exclusively for the use and reliance by Beazer Homes. Tait Environmental Management, Inc. will not distribute or publish this report without the consent of Beazer Homes except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment by Beazer Homes and should be considered and implemented

only in the light of that assignment. The services provided by Tait Environmental Management, Inc. in completing this project have been provided in a manner consistent with normal standards of the profession. No other warranty, expressed or implied, is made.

2.0 SITE DESCRIPTION

2.1 General Site Information

Site Location (Figures 1):

Address:	16000 Lake Shore Drive (Approximate)
State:	California
County:	Riverside
Intersection:	Northern corner of Lake Shore Drive and Dryden Street

Site Information:

Assessor's Number:	389-190-002
Size of Site:	82.49 acres
Current Zoning	Residential

2.2 General Regional Property Use:

The property is currently undeveloped. Residential development surrounds the SITE to the east, southeast, south, southwest, west and northwest. The areas to the north and northeast are undeveloped.

2.3 Physical Setting

2.3.1 General

The SITE lies at an elevation varying from approximately 1,350 feet to 1,600 feet above mean sea level. The property is undeveloped and uncleared land

2.3.2 Geology

The Site is situated in the Elsinore Trough and the Elsinore Fault Zone. The Elsinore Trough is a linear low-lying block located northeast of the Santa Ana Mountains and southwest of the Perris Plain.

The Elsinore fault is a right-lateral strike-slip fault that extends approximately 115 miles in a northwest-southeast direction. The last known rupture along the Elsinore fault occurred on May 15, 1910 with a magnitude 6 earthquake. The southeastern extension of the fault zone is cut by the Yuha Wells fault, and south of the Yuha Wells fault the Laguna Salada fault is thought to represent a southern extension of the Elsinore fault, and it last ruptured in 1892 with a magnitude 7 earthquake.

While this area has been relatively seismically 'quiet' in the last century, the general area is seismically active.

The soil in the area is largely sand and silty sand with lenticular deposits of gravel. This soil represents quaternary alluvial deposits from the surrounding mountains. The site lies in an area consisting of Pleistocene age non-marine sediments. The surrounding highlands consist mostly of pre-Cenozoic plutonic and metamorphic rocks.

There were several extensive deposits of clay in the area that have been mined out. Approximately 3 miles the north of the SITE there was also a coal mine with a railroad spur that mined lignite.

2.3.3 Hydrogeology

The mean annual precipitation in the area varies from approximately 10-inches to 16-inches per year. Most of the groundwater in the region lies at depth except in areas where sag ponds are located along side the faults or streams flowing from the surrounding mountainous areas. The depth to groundwater and the groundwater flow direction at the SITE is unknown.

2.3.4 Nearest Surface Water Body

The nearest surface water body is Lake Elsinore which lies approximately 1 mile south of the SITE.

2.4 Current Site Use and Conditions

2.4.1 General

The SITE is currently an undeveloped and uncleared, 82.49-acre parcel.

2.4.2 Current use of Buildings

There were no buildings or temporary structures present at the time of our SITE visit.

2.4.3 Utility and Other Services to SITE

The SITE is undeveloped and there are no utilities that enter the property. The Gas Company of Southern California is the natural gas provider for the area and their a gas main located in Lake Shore Drive. Southern California Edison provides electrical service and the nearest overhead service is along Dreyden Street. Elsinore Water District provides service for water and sewer and their service mains are located in Lake Shore Drive.

Photographs of the SITE are provided in Appendix B. General SITE Observations required by the ASTM standard practice are summarized on Table 2.

2.5 General Off-Site Description

2.5.1 Zoning:

The area is zoned for residential development.

2.5.2 Adjacent Site Use:

North The property immediately to the northwest is residential. The areas to the north and northeast remain undeveloped.

East The property east of the SITE is developed as residential.

South To the southwest, south and southeast, the land use is residential.

West The land to the west of the SITE is occupied by residences.

3.0 OWNER/USER SUPPLIED INFORMATION

3.1 Questionnaire

The owner was sent and returned a questionnaire (see Appendix C) that asked standard ASTM questions regarding the SITE.

3.2 Results of Questionnaire

The following important environmental issues were addressed by the questionnaire:

Past Environmental Studies

Has an environmental assessment previously been conducted at the SITE?	No
Environmental Liens/Actions	
Are there any pending, threatened or past litigation relevant to environmental issues at the SITE? (Owner Questionnaire/Interview)	No
Are there any pending, threatened or past administrative proceedings relevant to environmental issues at the SITE? (Owner Questionnaire)	No
Are there any notices from any governmental entity regarding any possible violation of environmental laws at the SITE? (Owner Questionnaire)	No

The owner has submitted all available documents regarding the property/SITE to Beazer Homes.

3.3 Other owner supplied information

The owner supplied SITE assessor's maps.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

An agency database search was obtained for the SITE from Environmental Data Resources, Inc. (EDR), (See Appendix D). This database search reviewed the most recently published lists from the various Federal, State and Local agencies for Recognized Environmental Conditions. See Table 3 for a listing and summary of search results. An analysis of the results will be found in section *7.0 FINDINGS* of this report.

4.2 Other Sources of Environmental Information

In addition to the information from the EDR report, various people and agencies were contacted for additional information where warranted. These people, agencies and their

contact information are listed in Table 1. Any information obtained is included in the section *7.0 FINDINGS* of this report.

4.3 SITE and Area History

Resources

The following resources were used in developing the Site History:

- *Aerial Photographs taken in 1938, 1953, 1963, 1989, 1994. (Aerials)*
- U.S. Geological Survey (USGS), Lake Elsinore, California Quadrangle, 7.5 Minute Series, Topographic map 1953, photo revised 1977, 1988 (Topo)
- U.S. Geological Survey (USGS), Lake Elsinore, California Quadrangle, 15 Minute Series, Topographic map 1901. (Topo)
- U.S. Army Corps of Engineers, Lake Elsinore, California Quadrangle, 15 Minute Series, Topographic Map 1942.
- U.S. Geological Survey (USGS), Alberhill, California Quadrangle, 7.5 Minute Series, Topographic map 1954, photo revised 1973, 1982, 1988, 1997. (Topo)
- Historic insurance company (Sanborn) maps were not available for the SITE.
- No building permits were on file with the City of Lake Elsinore for this SITE.

A complete list of references appears in Section 9.0.

Summary of SITE and Area History

From	To	SITE & Area use
1901	1938	SITE and adjacent properties, and the general area are undeveloped. There are several unimproved roads in the area and railroad tracks are present to the east of the SITE. The area is used for agriculture and mining. (Topo/Aerial)
1938	1942	The SITE remains undeveloped. The area to the southeast appears to be cleared and ready for development. The areas to the west, north and east remain unchanged and undeveloped and the areas to the south are used as an orchard. New road construction appears as State Highways 71 and 74 and 395. (Aerial)
1942	1953	The area and the SITE remains largely the same. (Topo/Aerial)
1953	1963	The SITE remains unchanged and undeveloped. There is little change in the surrounding areas. The SITE now has a trail

From	To	SITE & Area use
		system present. (Aerial)
1963	1973	The SITE remains unchanged. There is more residential development but the surrounding land use is still rural/agricultural. (Topo)
1973	1988/89	The SITE remains largely unchanged. The trail system on the site in now pronounced and maybe used by recreation vehicles. The surrounding land use is now mostly residential. (Topo/Aerial).
1989	1994	The SITE and surrounding area shows little change (Aerial).
1994	1997	The SITE and surrounding area shows little change (Topo)
1997	2003	The SITE and surrounding area shows little change (Site Visit)

5.0 SITE RECONNAISSANCE

SITE Reconnaissance Information:

Date of SITE Visit: September 2, 2003
Personnel: Curt Conner, TEM
Escort : None
Inaccessible Areas: The SITE is undeveloped and uncleared and there are few roads to access the area making it somewhat inaccessible. The top of the hill at the SITE is only accessible by a 4WD vehicle. The area is covered with vegetation.

5.1 General SITE Observations

The SITE is undeveloped and uncleared. There is some trash and construction debris scattered along the trails on the SITE. We saw no evidence of illegal disposal of hazardous materials or hazardous wastes during our SITE visit.

5.2 General SITE Environmental Conditions

5.2.1 USTs

There was no evidence of any existing or former underground storage tanks on the SITE. The SITE is not listed on an agency listing for underground storage tanks.

5.2.2 Hazardous Material/Hazardous Waste

There was no evidence of hazardous material use or storage, or hazardous waste generation on SITE other than that noted above. The SITE was not listed on any

agency listing for hazardous material use or hazardous waste generation, treatment, storage or disposal (Appendix D).

5.2.3 Asbestos

Not Applicable.

5.2.4 Lead Based Paint

Not applicable

5.2.5 Solid Waste Disposal

Not applicable.

5.2.6 PCB's

No transformers were noted on the property. The nearest transformer is on the west side of Lakeshore Drive and the south side of Dreyden Street at the time of our SITE visit.

5.2.7 Radon

Radon is a naturally occurring gas that is a daughter product of uranium decay. It was excluded from the scope of work of this study. However, the California Department of Health Services conducted statewide screening surveys in 1990. In Riverside County 26 samples of indoor air were taken. None of the samples exceeded the EPA guideline action level of 4.0 picocuries/liter (pCi/l).

6.0 INTERVIEWS

(See Table 1 for list of people contacted.)

7.0 FINDINGS

7.1 Sensitive On-Site Environmental Uses (Current and Historical)

There were no observed or recorded sensitive on-SITE environmental uses, either current or historical.

7.2 Sensitive Environmental Off-site uses (Current and Historical)

During the off-Site reconnaissance and review of the EDR database (See Tables 3 & 4), regulatory agency files, and historical information, no establishments with

the potential to impact the SITE were identified.

8.0 CONCLUSIONS

In the professional opinion of Tait Environmental Management, Inc., an appropriate level of inquiry has been made into the previous ownership and uses of the property consistent with good commercial and customary practice in an effort to minimize liability, and no evidence or indication of Recognized Environmental Conditions has been revealed. No further investigation is deemed necessary at this time.

9.0 REFERENCES

Agency Contacts
Refer to Table 1

Reports and Publications

ASTM, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. E1527-00, 2000.

California Code of Regulations (CCR) Title 22. Division 4.5, Chapter 10, Minimum Standards for Management of Hazardous and Extremely Hazardous Waste.

California Code of Regulations (CCR) Title 23, Division 3, Chapter 16, State Water Resources Control Board, Underground Tank Regulations.

California Division of Mines and Geology, 1959, Geology and Mineral Deposits of The Lake Elsinore Quadrangle California, Bulletin 146.

Southern California Earthquake Data Center, Elsinore Fault, http://www.sceedc.scec.org/elsfault.html

The Geological Society of America, Cordilleran Section, 97th Annual Meeting, April, 2001, The Locations and Relative Activity of Elsinore Fault Zone Splays, South Shore of Lake Elsinore, Riverside County, California, Shelmon, Roy J.

Maps

U.S. Geological Survey (USGS), Lake Elsinore, California Quadrangle, 7.5 Minute Series, Topographic map 1953, photo revised 1977, 1988 (Topo)

U.S. Geological Survey (USGS), Lake Elsinore, California Quadrangle, 15 Minute Series, Topographic map 1901. (Topo)
U.S. Army Corps of Engineers, Lake Elsinore, California Quadrangle, 15 Minute Series.

Topographic Map 1942.

U.S. Geological Survey (USGS), Alberhill, California Quadrangle, 7.5 Minute Series. Topographic map 1954, photo revised 1973, 1982, 1988, 1997. (Topo)

California Division of Mines and Geology (DMG) (1966), Geologic Map Of California, Santa Ana Sheet, Scale 1:250,000.

Aerial Photographs

TEM reviewed the following photographs:
Aerial Photographs taken in 1938, 1953, 1963, 1989, 1994. (Aerials)

Databases

Environmental Data Resources Inc. EDR Radius Report 1036081-6, 16000 Lake Shore Drive, Lake Elsinore, California, 92530, dated August 28, 2003.

MISCELLANEOUS

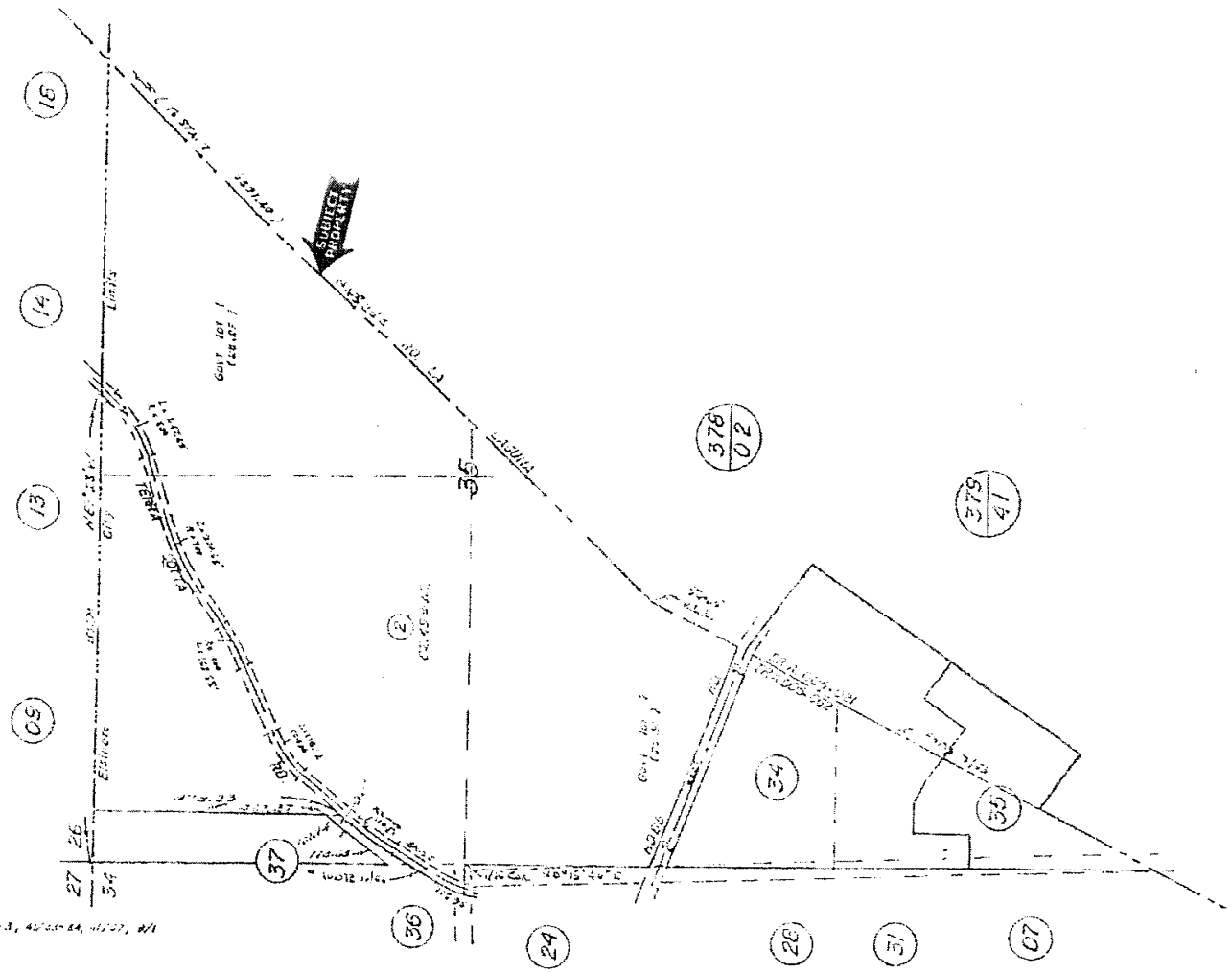
THIS MAP IS FOR
ASSESSMENT PURPOSES ONLY

FRAC. SEC. 35, FOR. N1/2 SEC. 34 T. 5 S.R. 5 W.

T.R.A. 005-002
005-021

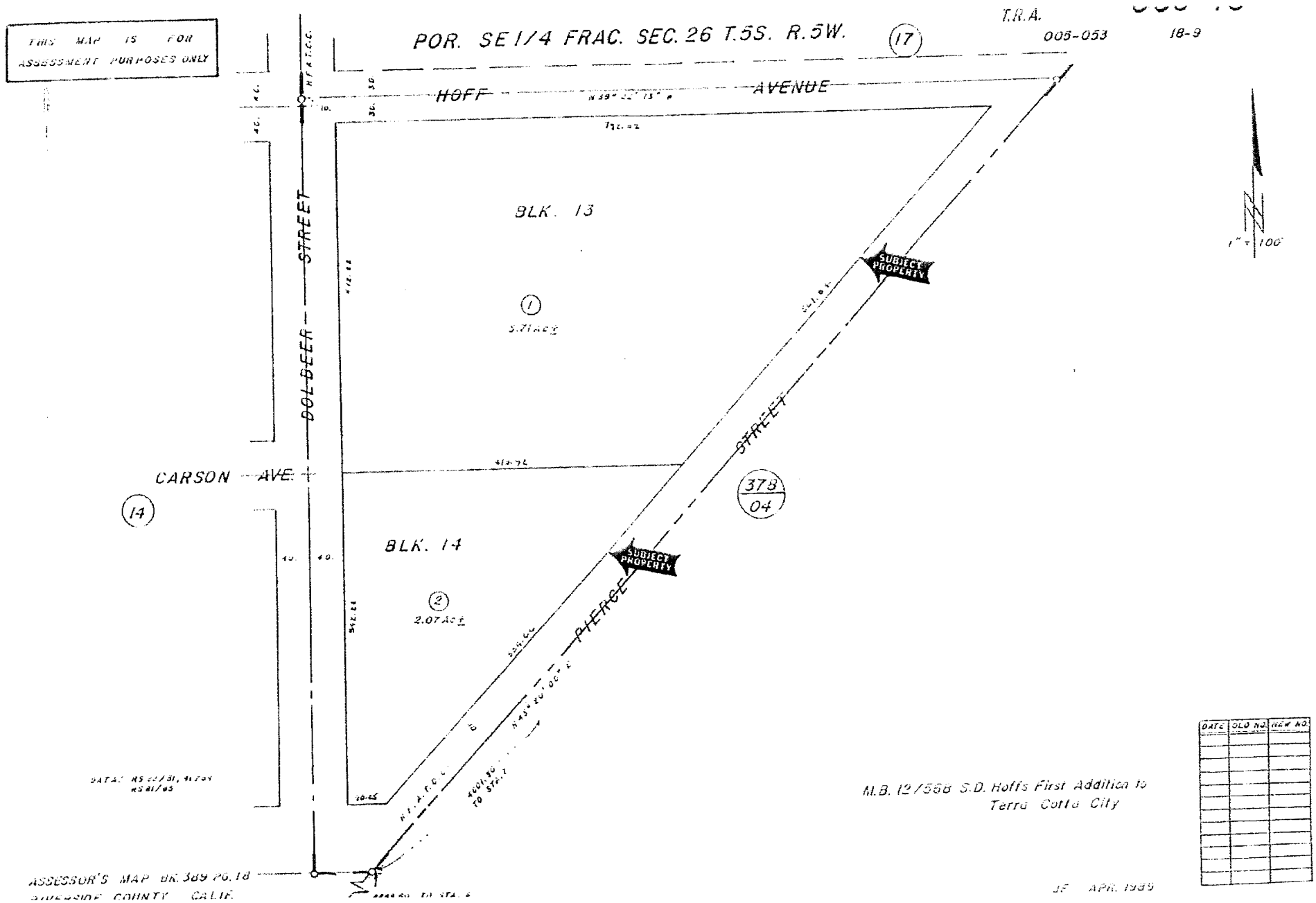
3-1
-19

1" = 400'



DATE	OLD NO.	NEW NO.
5/84	3	4,5,6
"	4	343(1-13)
"	5	343(20-32)
"		344(5-14)
"	6	350(2-37)
		350(20-22)
3/85	7	7-8
"	8	8
5-85	8	040-25
5-85	9	PG 37

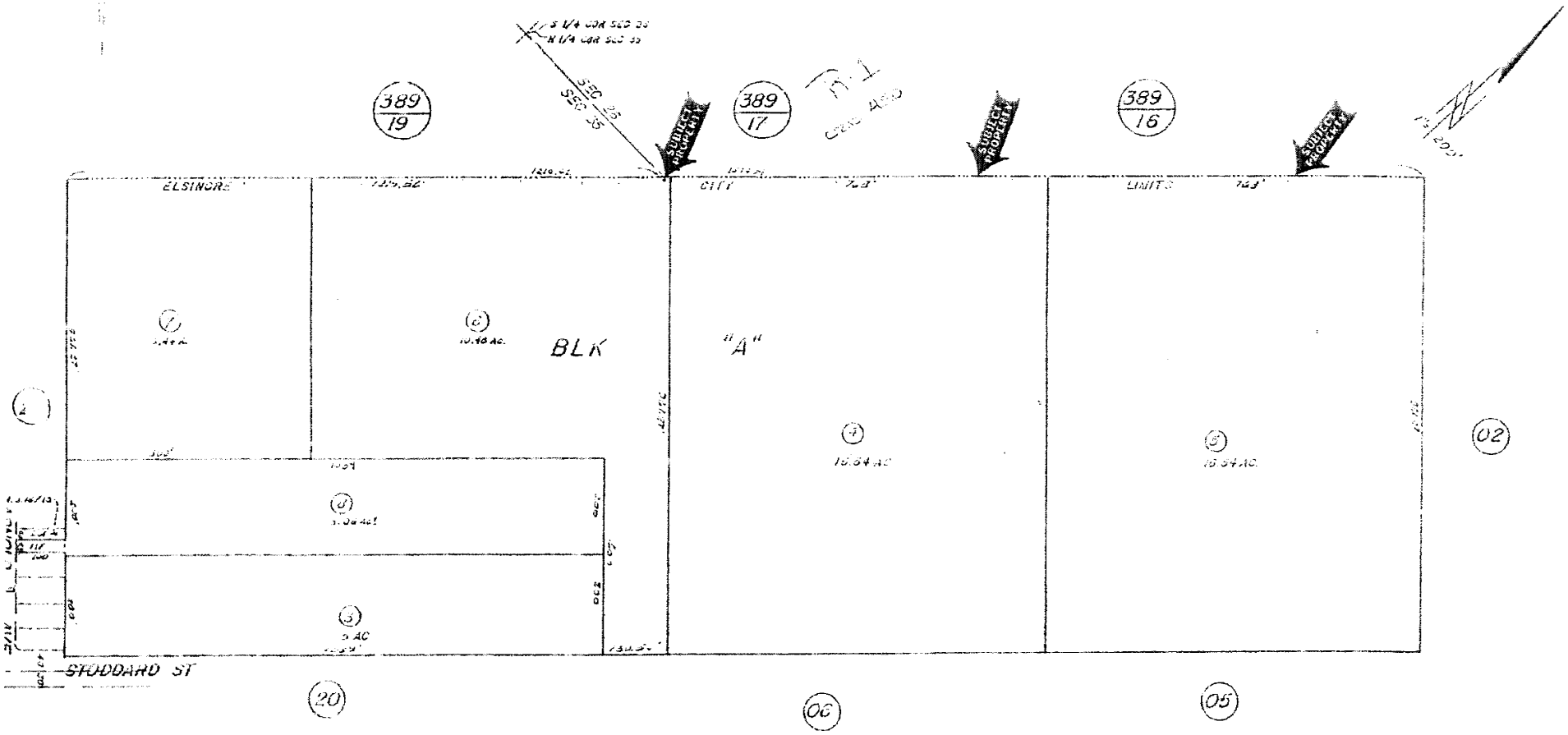
ASSESSOR'S MAP BK. 389 PG. 18
RIVERSIDE COUNTY CALIF.


THIS MAP IS FOR ASSESSMENT PURPOSES ONLY
POR. SE 1/4 FRAC. SEC. 26 T.5S. R.5W.
T.R.A.
005-053
18-9
17
HOFF AVENUE
DOLBEER STREET
CARSON AVE.
14
BLK. 13
1
BLK. 14
2
2.07 Acs
SUBJECT PROPERTY
SUBJECT PROPERTY
PIERCE STREET
378
04
1" = 100'
M.B. 12/55B S.D. Hoffs First Addition to Terra Cotta City
ASSESSOR'S MAP BK. 389 PG. 18
RIVERSIDE COUNTY CALIF.
DATE
OLD NO.
NEW NO.

MAP IS FOR
MENT PURPOSES ONLY

T.R.A. 519

POR. RANCHO 'L AGUNA'
T.5 S., R.5 W.



DATE	OLD NO	NEW NO.
9/74	1	6,7
3-87	2,211-22	8

R.S. 6/1
R.S. 7/33

ASSESSOR'S MAP BK.378 PG.04
RIVERSIDE COUNTY, CALIF.

M.B. 18/15 Country Club Heights Unit 6
M.B. 8/377 S.D. Low Rolling Hills

MAY, 1973

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

BASIN ‘A’

Storage Capacity Calculations

Tract 32786 Basin "A"

PREPARED: 8/24/2013

BASIN DEPTH	ELEV.	CONTOUR INTERVAL	AREA (Sq. Ft.)	MEAN AREA (Sq. Ft.)	MEAN AREA (Acres.)	TOTAL VOLUME (Ac. Ft.)
0	359.67		1,113			0
		0.33		2,401.0	0.055	
0.33	360		3,689			0.02
		0.33		5,472.0	0.126	
0.66	360.33		7,255			0.06
		0.34		8,659.0	0.199	
1	360.67		10,063			0.13
		0.33		10,679.7	0.245	
1.33	361		11,297			0.21
		0.33		11,613.7	0.267	
1.66	361.33		11,931			0.30
		0.34		12,255.2	0.281	
2	361.67		12,580			0.39
		0.33		12,915.4	0.296	
2.33	362		13,251			0.49
		0.33		13,588.3	0.312	
2.66	362.33		13,926			0.59
		0.34		14,271.7	0.328	
3	362.67		14,618			0.70
		0.33		14,960.8	0.343	
3.33	363		15,304			0.82
		0.33		15,492.0	0.356	
3.66	363.33		15,680			0.93
		0.34		15,872.5	0.364	
4	363.67		16,065			1.06
		0.33		16,248.7	0.373	
4.33	364		16,433			1.18
		1		16,995.6	0.390	
5.33	365		17,559			1.57
		1		18,132.5	0.416	
6.33	366		18,706			1.99
		1		19,300.7	0.443	
7.33	367		19,895			2.43
		1		20,489.3	0.470	
8.33	368		21,084			2.90
		2		22,356.5	0.513	
10.33	370		23,629			3.93
		2		25,057.4	0.575	
12.33	372		26,485			5.08
		1		25,739.7	0.591	
13.33	373		27,850			5.67

Storage Capacity AcFt 5.67 Storage Capacity CuFt 246,958

Santa Ana Watershed - BMP Design Volume, V_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

(Note this worksheet shall only be used in conjunction with BMP designs from the LID BMP Design Handbook)

Company Name Mayers & Associates — Date 11/20/2012
Designed by Steven E. Barnhart — Case No
Company Project Number/Name TTM 32786 Lake Elsinore Terracina Basin "A"

BMP Identification

BMP NAME / ID

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E — D_{85}= 0.80 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
1	563102	Concrete or Asphalt	1	0.89	502287			
2	511938	Roofs	1	0.89	456648.7			
3	976636	Ornamental Landscaping	0.1	0.11	107877.3			
	2051676	Total			1066813	0.80	71120.9	

Proposed Volume must be greater than the Design Capture Volume

Notes:

Extended Detention Basin Design Procedure	BMP Subarea No.	Legend:	Required Entries / Calculated Cells

pany Name: Mayers & Associates — Date:

Designed by: Steven E. Barnhart — County/City Case No.:

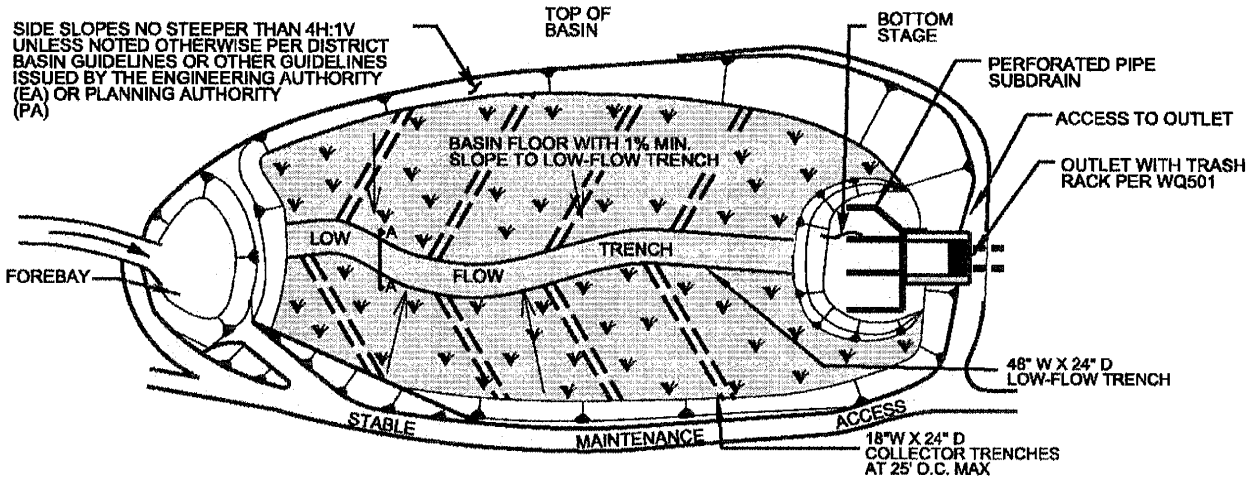
Design Volume

Tributary Area (BMP Subarea)	A_T =	47.1	acres
Enter V_{BMP}, determined from Section 2.1 of this Handbook	V_{BMP}=	71,121	ft^3

Basin Footprint

Overall Geometry

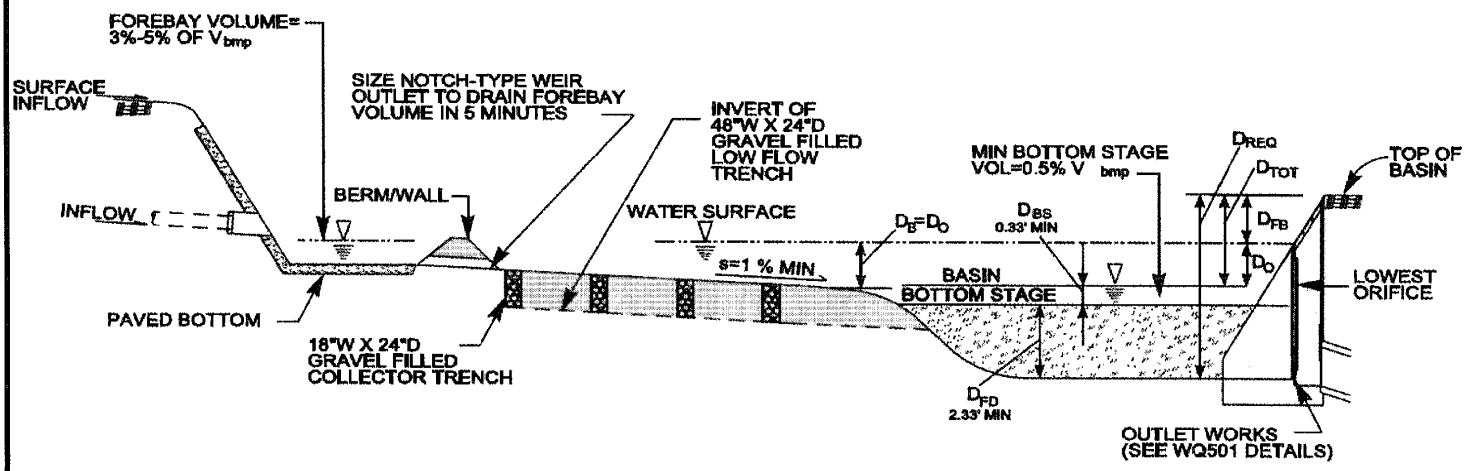
Length at Basin Bottom Surface	Length =	160	ft
Width at Basin Bottom Surface	Width =	85	ft
	Meets 1.5 : 1 requirement?	1.882353	
Side Slopes per "Basin Guidelines", Sect. 1.2	z =	4	:1
Proposed Basin Depth (with no freeboard)	D_B =	5.67	ft
Depth of freeboard (if used)	D_{FB} =	3.00	ft
Minimum Required Allowance for Total Depth (including proposed basin depth, freeboard, minimum depth of bottom stage (D_{BS}=0.33') and minimum filter depth (D_{FD}=2.33'))	D_{REQ} =	11.3	ft
Depth from design water surface elevation to lowest orifice	D_O =	5.7	ft



Basin Design

Basin Design

Proposed Total Basin Depth (proposed depth plus freeboard)	D_{TOT} =	8.67	ft
Basin Invert Longitudinal Slope	Slope =	1.00	%
Basin Invert Transverse Slope (1% min)	Slope =	1	%
Basin Volume	V_{Basin} =	314330	ft^3



Forebay Design

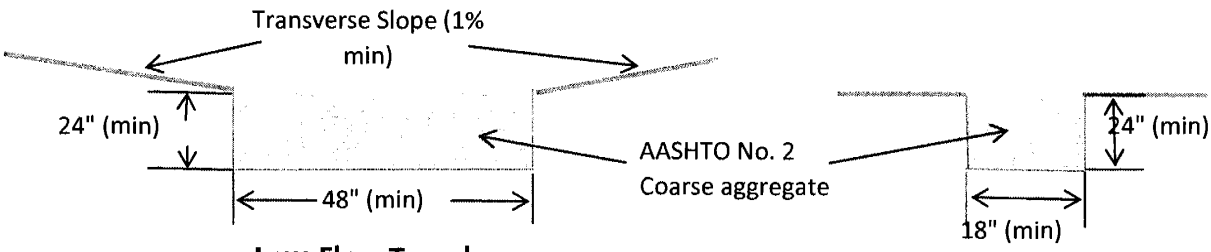
Forebay Volume (3 - 5% V_{BMP})	Volume must be at least 3% VBMP	V_{FB} =	1930	ft^3
Forebay Depth (height of berm)		D_{FBY} =	1	ft
Minimum Forebay Surface Area		A_{FB} =	1930	ft^2
Rectangular weir (notch)		W =	3.00	in

w-Flow Trench (see graphic below)

Depth (24 inches minimum, gravel filled)	Depth =	24	inches
Width (48 inches minimum)	Width =	48	inches
Trench Invert Longitudinal Slope	Slope =	1	%

Collector Trenches (see graphic below)

Depth (24 inches minimum)	Depth =	24	inches
Width (18 inches minimum)	Width =	18	inches
Trench Invert Longitudinal Slope	Slope =	1	%
Spacing (25 feet on center maximum)	S =	25	feet



Low-Flow Trench **Collector Trench**

Bottom Stage (Sand Filter) Design

Depth of the Bottom Stage (4" minimum ponding)	D_{BS} =	4	in
Surface Area of Bottom Stage	A_{BS} =	3125	ft^2
Dry Weather Ponded Volume (above sand layer)	V_{BS} =	1042	ft^3

Is V_{BS} no less than 0.5% V_{BMP}? OK

Depth of ASTM-C33 sand (18 inch minimum)

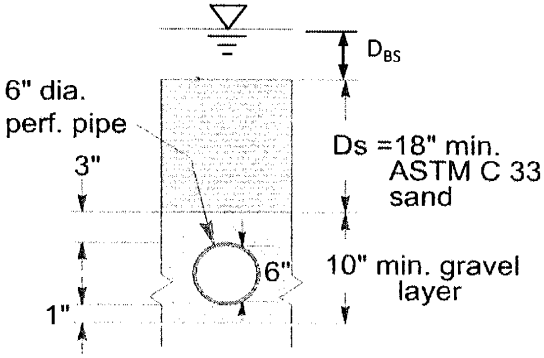
Ds = 18 inches

Diameter of Subdrains

ϕ = 6 in

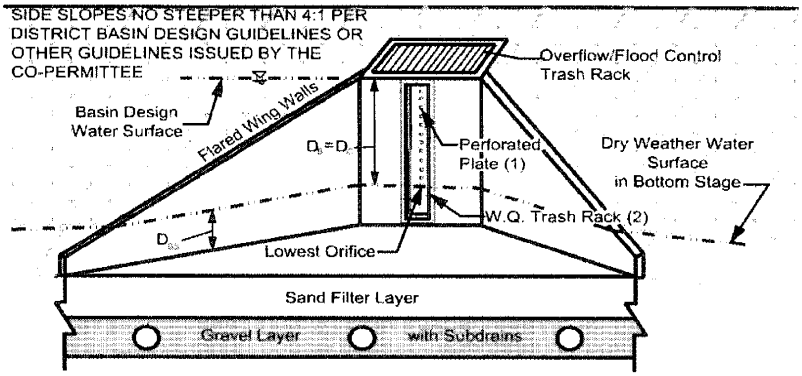
Subdrain Spacing

s = 15 ft. on center



tlet Design

Assume an orifice area. Based on the information provided above, the spreadsheet provides discharge vs. stage data. Enter the volume vs. stage data for each interval. This information is used to route the volume through the basin. The size of the orifice is acceptable when the data shows that less than 50% of V_{BMP} has drained in 24 hours, and that 100% drawdown occurs within 72 hours.



Flow Rate, Q (cfs)

$$Q=CA[2g(H-H_o)]^{0.5}$$

Discharge Coefficient,

Default, C = 0.66

Other, C =

Orifice Area (ft^2)

Orifice Diameter, d; number of orifices per row, n; and number of orifice rows, N (from the bottom up).

d = 1.8 inches

n = 2 per row

N = 1 rows

Aeff = 0.035 ft^2 per row

or

Aeff = 5.087 in^2 per row

From outflow hydrograph, the time where 50% of V_{BMP} has drained from the basin (24 hour minimum):

Time (50%) = 27.38 hrs

OK

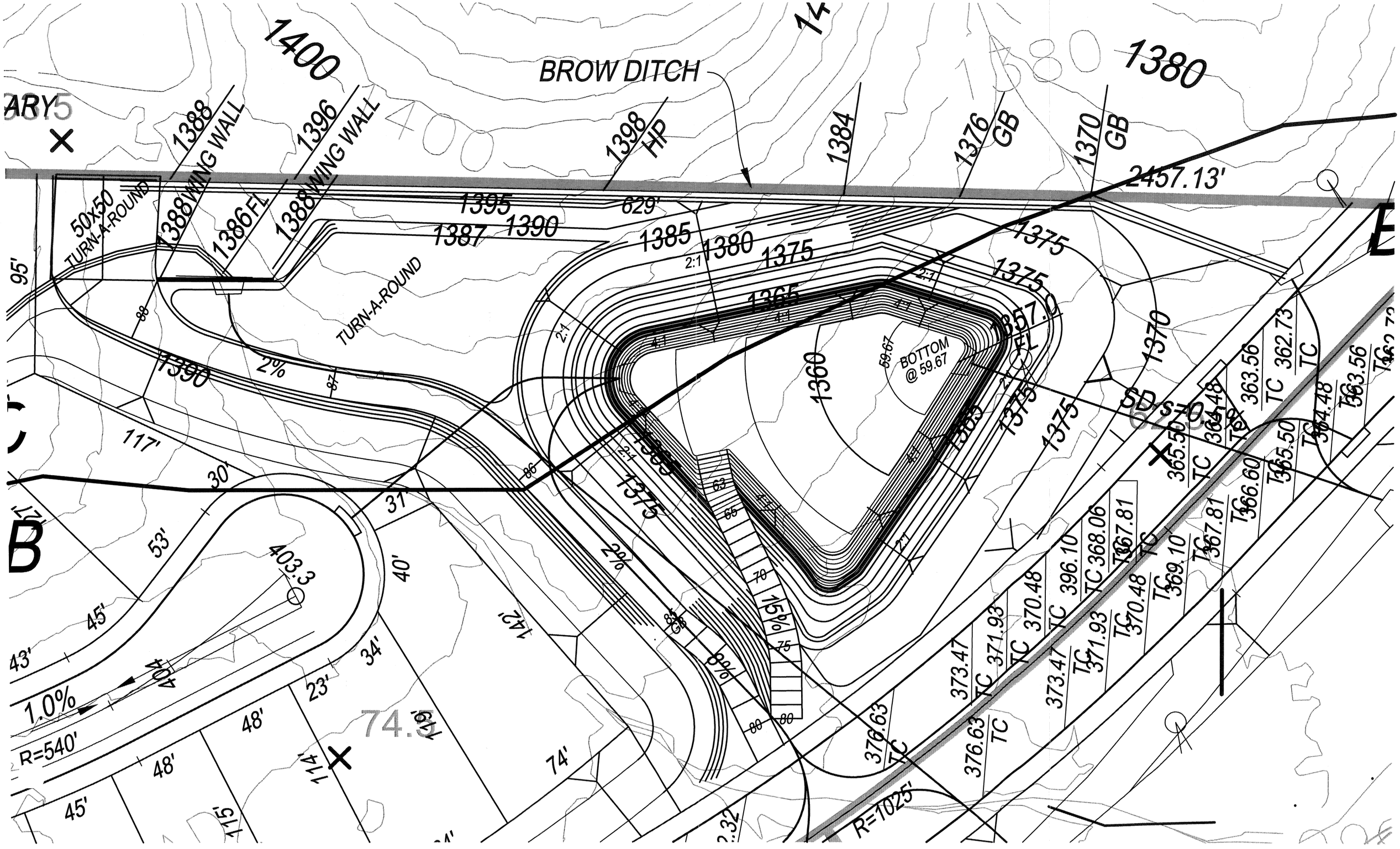
From outflow hydrograph, the time where 100% V_{BMP} has drained from the basin(within 72 hours):

Time (100 %) = 71.37 hrs

OK

Headwater Elev. / Stage (ft)	Discharge (cfs)	Volume (acre-ft)	Δt (hrs.)
0	0.0000	0.0000	
0.33	0.1080	0.020	4.48
0.67	0.1528	0.060	3.71
1.00	0.1871	0.130	4.98
1.33	0.2160	0.210	4.80
1.67	0.2416	0.300	4.76
2.00	0.2646	0.390	4.30
2.33	0.2858	0.490	4.40
2.67	0.3055	0.590	4.09
3.00	0.3241	0.700	4.23
3.33	0.3416	0.820	4.36
3.67	0.3583	0.930	3.80
4.00	0.3742	1.060	4.30
4.33	0.3895	1.180	3.80
4.67	0.4042	1.310	3.96
5.00	0.4184	1.440	3.82
5.33	0.4321	1.570	3.70
5.67	0.4454	1.710	3.86
6.00	0.4455	1.850	
6.33		1.990	
6.67			
7.00			
7.33			
7.67			
8.00			
8.33			
8.67			
9.00			
9.33			
9.67			
10.00			
		∑ =	71.37

Notes:



BROW DITCH
1400
1380
1388 WING WALL
1396 WING WALL
1398 HP
1384
1376 GB
1370 GB
2457.13'
50x50 TURN-A-ROUND
1386 FL
1388 WING WALL
1395
1387
1390
629'
1385
1380
1375
1365
1360
1357.0 FL
BOTTOM @ 59.67
TURN-A-ROUND
95'
117'
30'
31'
53'
45'
43'
40'
34'
23'
48'
48'
45'
74'
142'
114'
115'
403.3
404
1.0%
R=540'
2%
15%
8%
R=1025'
SD s=0.5
363.56 TC
362.73 TC
364.48 TC
365.50 TC
366.60 TC
367.81 TC
368.06 TC
369.10 TC
370.48 TC
371.93 TC
373.47 TC
376.63 TC

BASIN ‘B’

Storage Capacity Calculations

Tract 32786 Basin "B"

PREPARED: 8/24/2013

BASIN DEPTH	ELEV.	CONTOUR INTERVAL	AREA (Sq. Ft.)	MEAN AREA (Sq. Ft.)	MEAN AREA (Acres.)	TOTAL VOLUME (Ac. Ft.)
0	287		3,113			0
		0.33		4,655.0	0.107	
0.33	287.33		6,197			0.04
		0.34		8,519.5	0.196	
0.67	287.67		10,842			0.10
		0.33		13,527.5	0.311	
1	288		16,213			0.20
		0.33		18,659.5	0.428	
1.33	288.33		21,106			0.35
		0.34		23,347.0	0.536	
1.67	288.67		25,588			0.53
		0.33		27,625.5	0.634	
2	289		29,663			0.74
		0.33		31,709.0	0.728	
2.33	289.33		33,755			0.98
		0.34		35,714.5	0.820	
2.67	289.67		37,674			1.26
		0.33		38,674.0	0.888	
3	290		39,674			1.55
		0.33		40,282.0	0.925	
3.33	290.33		40,890			1.85
		0.34		41,503.0	0.953	
3.67	290.67		42,116			2.18
		0.33		42,735.0	0.981	
4	291		43,354			2.50
		0.33		43,978.5	1.010	
4.33	291.33		44,603			2.84
		0.34		45,233.5	1.038	
4.67	291.67		45,864			3.19
		0.33		46,547.0	1.069	
5	292		47,230			3.54
		0.33		47,565.0	1.092	
5.33	292.33		47,900			3.90
		0.34		48,235.0	1.107	
5.67	292.67		48,570			4.28
		0.33		48,905.0	1.123	
6	293		49,240			4.65
		2		51,276.0	1.177	
8	295		53,312			7.00
		1		54,345.0	1.248	
9	296		55,378			8.25
		1		56,424.0	1.295	
10	297		57,470			9.55
		1		58,529.0	1.344	
11	298		59,588			10.89
		1		60,659.0	1.393	
12	299		61,730			12.28
		1		62,815.5	1.442	
13	300		63,901			13.72

Storage Capacity AcFt 13.72 Storage Capacity CuFt 597,797

Santa Ana Watershed - BMP Design Volume, V_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Mayers & Associates — Date 11/20/2012
Designed by Steven E. Barnhart — Case No
Company Project Number/Name TTM 32786 Lake Elsinore Terracina Basin "B"

BMP Identification

BMP NAME / ID

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E — D_{85}= 0.80 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
1	896900	Concrete or Asphalt	1	0.89	800034.8			
2	1051756	Roofs	1	0.89	938166.4			
3	2019660	Ornamental Landscaping	0.1	0.11	223087.6			
	3968316	Total			1961288.8	0.80	130752.6	

Proposed Volume must be greater than the Design Capture Volume

Notes:

Extended Detention Basin Design Procedure	BMP Subarea No.	Legend:	Required Entries / Calculated Cells

pany Name: Mayers & Associates — Date:

Designed by: Steven E. Barnhart — County/City Case No.:

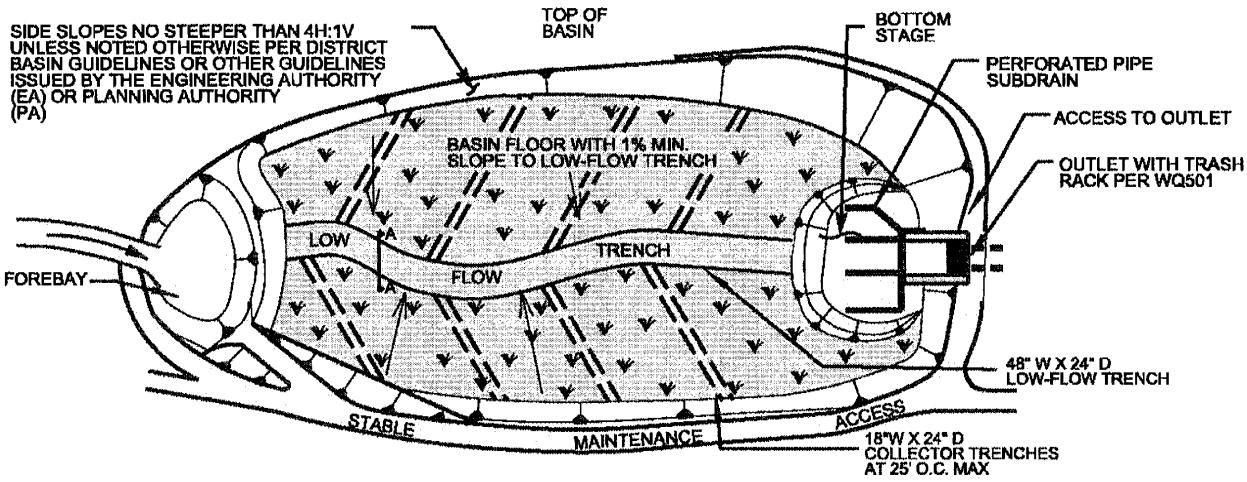
Design Volume

Tributary Area (BMP Subarea)	A_T =	91.1	acres
Enter V_{BMP}, determined from Section 2.1 of this Handbook	V_{BMP}=	130,753	ft^3

Basin Footprint

Overall Geometry

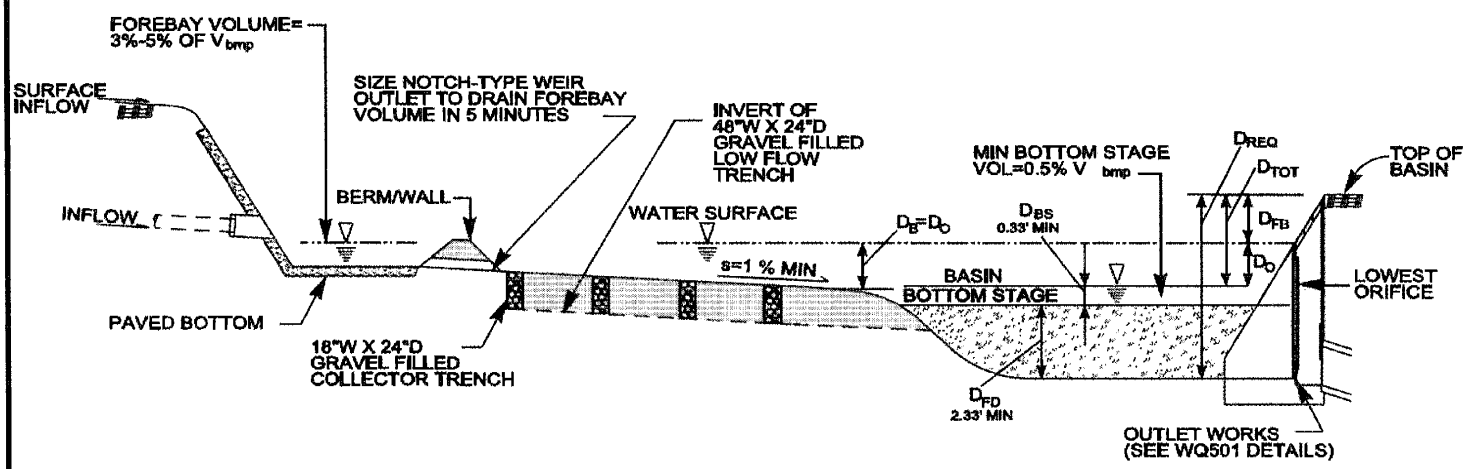
Length at Basin Bottom Surface	Length =	370	ft
Width at Basin Bottom Surface	Width =	150	ft
	Meets 1.5 : 1 requirement?	2.466667	
Side Slopes per "Basin Guidelines", Sect. 1.2	z =	4	:1
Proposed Basin Depth (with no freeboard)	D_B =	7.00	ft
Depth of freeboard (if used)	D_{FB} =	2.00	ft
Minimum Required Allowance for Total Depth (including proposed basin depth, freeboard, minimum depth of bottom stage (D_{BS}=0.33') and minimum filter depth (D_{FD}=2.33'))	D_{REQ} =	11.7	ft
Depth from design water surface elevation to lowest orifice	D_O =	7.0	ft



Basin Design

Basin Design

Proposed Total Basin Depth (proposed depth plus freeboard)	D_{TOT} =	9.00	ft
Basin Invert Longitudinal Slope	Slope =	1.00	%
Basin Invert Transverse Slope (1% min)	Slope =	1	%
Basin Volume	V_{Basin} =	361984	ft^3



Forebay Design

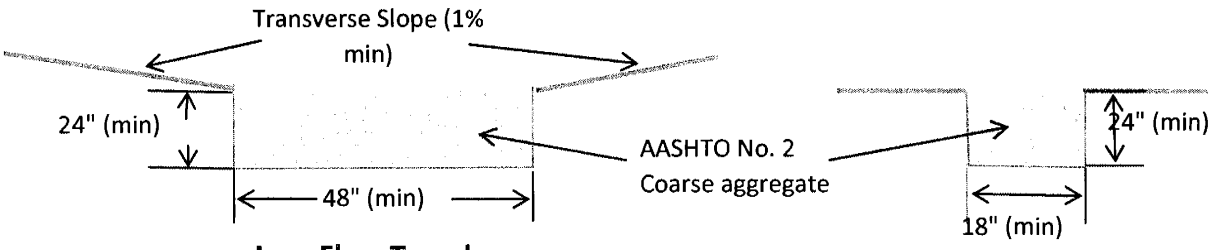
Forebay Volume (3 - 5% V_{BMP})	V_{FB} =	4447	ft^3
Forebay Depth (height of berm)	D_{FBY} =	1	ft
Minimum Forebay Surface Area	A_{FB} =	4447	ft^2
Rectangular weir (notch)	W =	3.00	in

w-Flow Trench (see graphic below)

Depth (24 inches minimum, gravel filled)	Depth =	24	inches
Width (48 inches minimum)	Width =	48	inches
Trench Invert Longitudinal Slope	Slope =	1	%

Collector Trenches (see graphic below)

Depth (24 inches minimum)	Depth =	24	inches
Width (18 inches minimum)	Width =	18	inches
Trench Invert Longitudinal Slope	Slope =	1	%
Spacing (25 feet on center maximum)	S =	25	feet



Low-Flow Trench **Collector Trench**

Bottom Stage (Sand Filter) Design

Depth of the Bottom Stage (4" minimum ponding)	D_{BS} =	4	in
Surface Area of Bottom Stage	A_{BS} =	3125	ft^2
Dry Weather Ponded Volume (above sand layer)	V_{BS} =	1042	ft^3

Is V_{BS} no less than 0.5% V_{BMP}? OK

Depth of ASTM-C33 sand (18 inch minimum)

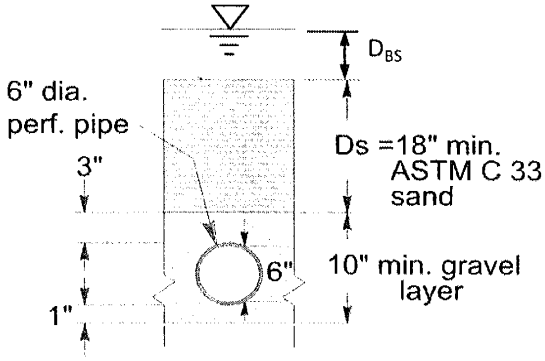
Ds = 18 inches

Diameter of Subdrains

ϕ = 6 in

Subdrain Spacing

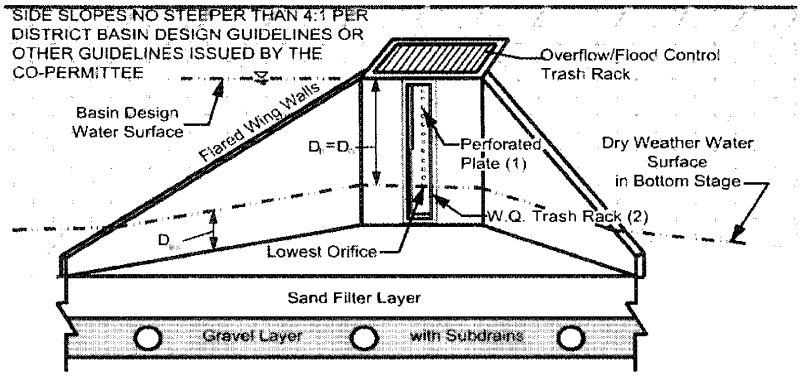
s = 15 ft. on center



Basin Outlet Design

tlet Design

Assume an orifice area. Based on the information provided above, the spreadsheet provides discharge vs. stage data. Enter the volume vs. stage data for each interval. This information is used to route the volume through the basin. The size of the orifice is acceptable when the data shows that less than 50% of V_{BMP} has drained in 24 hours, and that 100% drawdown occurs within 72 hours.



Flow Rate, Q (cfs)

$$Q=CA[2g(H-H_o)]^{0.5}$$

Discharge Coefficient,

Default, C = 0.66

Other, C =

Orifice Area (ft^2)

Orifice Diameter, d; number of orifices per row, n; and number of orifice rows, N (from the bottom up).

d = 2.033 inches

n = 3 per row

N = 1 rows

Aeff = 0.068 ft^2 per row

or

Aeff = 9.733 in^2 per row

From outflow hydrograph, the time where 50% of V_{BMP} has drained from the basin (24 hour minimum):

Time (50%) = 29.40 hrs

OK

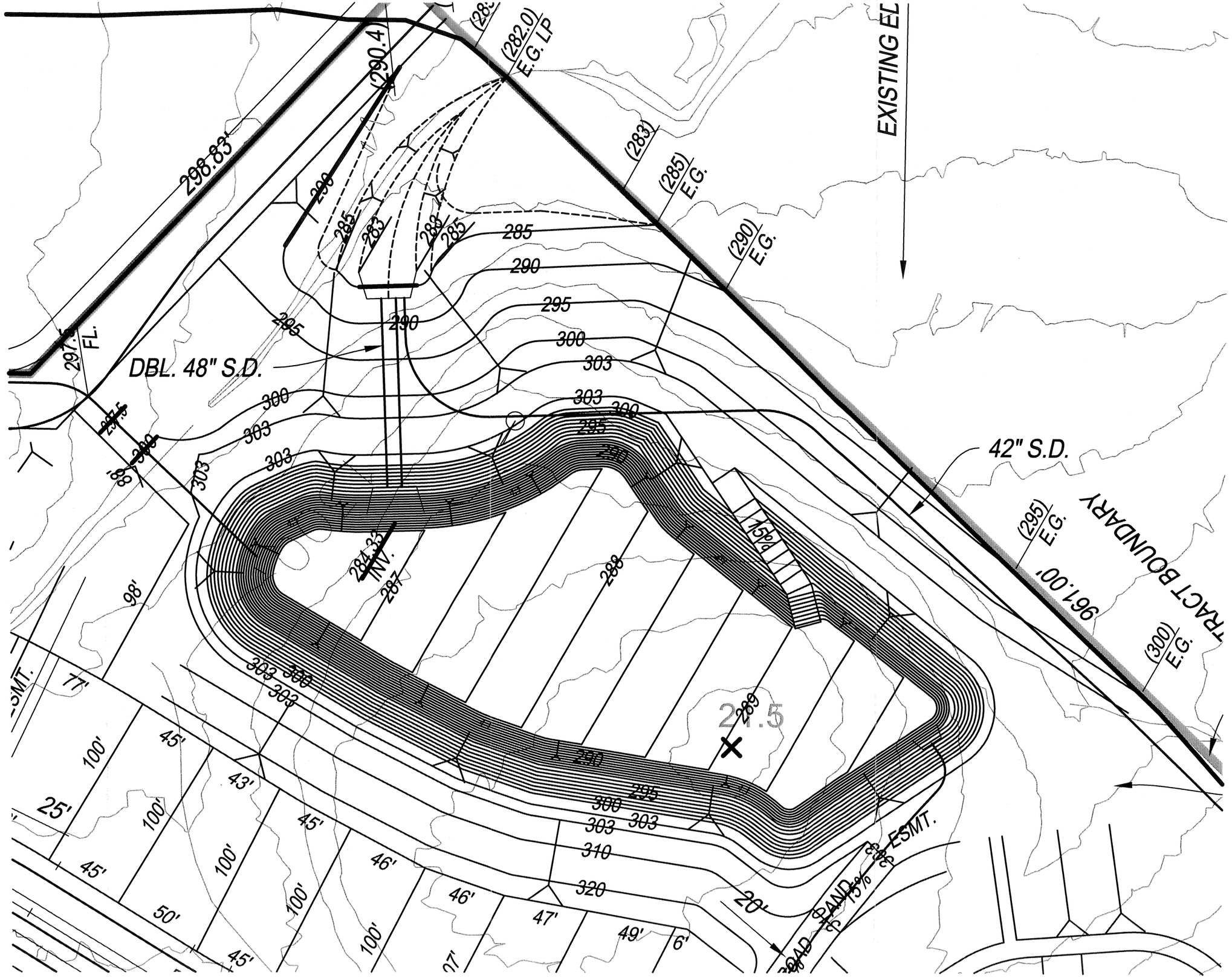
From outflow hydrograph, the time where 100% V_{BMP} has drained from the basin(within 72 hours):

Time (100 %) = 71.98 hrs

OK

Headwater Elev. / Stage (ft)	Discharge (cfs)	Volume (acre-ft)	Δt (hrs.)
0	0.0000	0.0000	
0.33	0.2066	0.040	4.69
0.67	0.2924	0.100	2.91
1.00	0.3580	0.200	3.72
1.33	0.4133	0.350	4.71
1.67	0.4622	0.530	4.98
2.00	0.5063	0.740	5.25
2.33	0.5468	0.980	5.52
2.67	0.5847	1.260	5.99
3.00	0.6201	1.550	5.83
3.33	0.6536	1.850	5.70
3.67	0.6856	2.180	5.96
4.00	0.7160	2.500	5.53
4.33	0.7452	2.860	5.96
4.67	0.7734	3.190	5.26
5.00	0.8005	3.540	
5.33	0.8268	3.900	
5.67	0.8522	4.280	
6.00	0.8769	4.650	
6.33	0.9009	5.020	
6.67	0.9244	5.390	
7.00	0.9472	5.760	
7.33			
7.67			
8.00			
8.33			
8.67			
9.00			
9.33			
9.67			
10.00			
		∑ =	71.98

Notes:



EXISTING ED
TRACT BOUNDARY
(282.0) E.G. LP
(290.4)
298.83'
(283)
(285) E.G.
(290) E.G.
(295) E.G.
(300) E.G.
DBL. 48" S.D.
42" S.D.
297.5 FL.
284.33 INV.
15%
21.5
ESMT.
ROAD
PAND.
15%

BASIN ‘C’

Storage Capacity Calculations

Tract 32786 Basin "C"

PREPARED: 8/26/2013

BASIN DEPTH	ELEV.	CONTOUR INTERVAL	AREA (Sq. Ft.)	MEAN AREA (Sq. Ft.)	MEAN AREA (Acres.)	TOTAL VOLUME (Ac. Ft.)
0	357		3,734			0
		1		4,015.0	0.092	
1	358		4,296			0.09
		1		4,590.0	0.105	
2	359		4,884			0.20
		1		5,190.5	0.119	
3	360		5,497			0.32
		1		5,881.0	0.135	
4	361		6,265			0.45
		1		6,671.5	0.153	
5	362		7,078			0.60
		1		7,507.0	0.172	
6	363		7,936			0.78
		1		8,383.0	0.192	
7	364		8,830			0.97
		0.5		9,070.0	0.208	
7.5	364.5		9,310			1.07
		0.5		9,549.5	0.219	
8	365		9,789			1.18
		1		10,291.5	0.236	
9	366		10,794			1.42
		1		11,322.5	0.260	
10	367		11,851			1.68
		1		12,409.0	0.285	
11	368		12,967			1.96
		1		13,550.0	0.311	
12	369		14,133			2.28
		1		14,727.0	0.338	
13	370		15,321			2.61

Storage Capacity AcFt 2.61 Storage Capacity CuFt 113,848

Santa Ana Watershed - BMP Design Volume, V_{BMP}
(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Mayers & Associates — Date 11/20/2012
Designed by Steven E. Barnhart — Case No
Company Project Number/Name TTM 32786 Lake Elsinore Terracina Basin "C"

BMP Identification

BMP NAME / ID

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E — D_{85}= 0.80 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
1	130509	Concrete or Asphalt	1	0.89	116414			
2	209428	Roofs	1	0.89	186809.8			
3	409295	Ornamental Landscaping	0.1	0.11	45209.9			
	749232		Total		348433.7	0.80	23228.9	

Proposed Volume must be greater than the Design Capture Volume

Notes:

Infiltration Basin - Design Procedure (Rev. 03-2012)	BMP ID	Legend:	Required Entries / Calculated Cells

ıpany Name: Mayers & Associates — Date: 12/4/2012

Designed by: Steven E. Barnhart — County/City Case No.:

Design Volume

a) Tributary area (BMP subarea)	A_T =	17.2	acres
b) Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	5,191	ft^3

Maximum Depth

a) Infiltration rate	I =	30	in/hr
b) Factor of Safety (See Table 1, Appendix A: "Infiltration Testing" from this BMP Handbook)	FS =	3	
c) Calculate D_1 $D_1 = \frac{I\ (in/hr) \times 72\ hrs}{12\ (in/ft) \times FS}$	D_1 =	60.0	ft
d) Enter the depth of freeboard (at least 1 ft)		1	ft
e) Enter depth to historic high ground water (measured from **top** of basin)		75	ft
f) Enter depth to top of bedrock or impermeable layer (measured from **top** of basin)		15	ft
` D_2 is the smaller of: Depth to groundwater - (10 ft + freeboard) and Depth to impermeable layer - (5 ft + freeboard)	D_2 =	9.0	ft
h) D_{MAX} is the smaller value of D_1 and D_2 but shall not exceed 5 feet	D_{MAX} =	9.0	ft

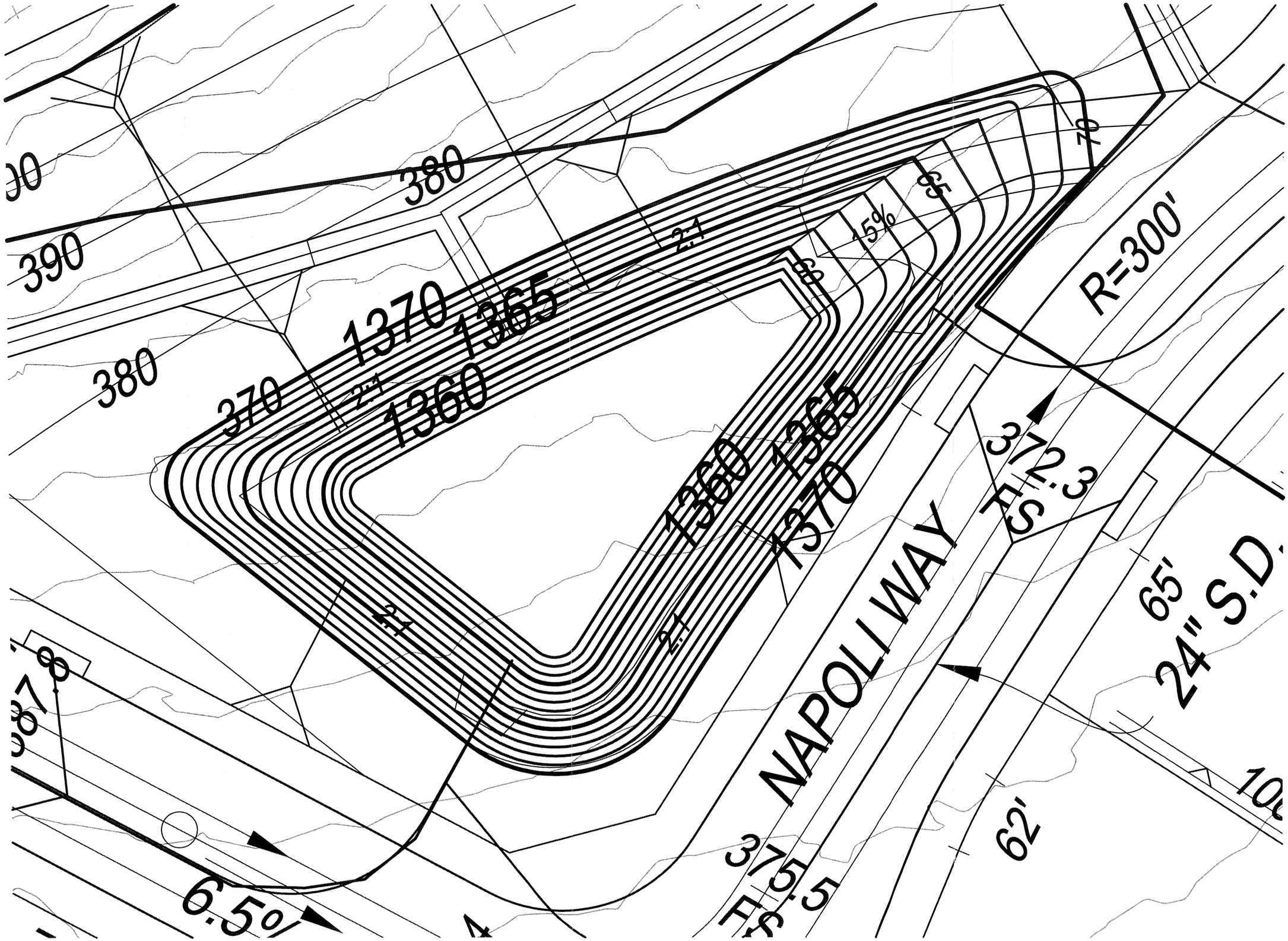
Basin Geometry

a) Basin side slopes (no steeper than 4:1) Slope no steeper than 4:1	z =	2	:1
b) Proposed basin depth (excluding freeboard)	d_B =	4.5	ft
c) Minimum bottom surface area of basin ($A_S = V_{BMP}/d_B$)	A_S =	1154	ft^2
d) Proposed Design Surface Area	A_D =	5498	ft^2

Forebay

a) Forebay volume (minimum 0.5% V_{BMP})	Volume =	26	ft^3
b) Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
c) Forebay surface area (minimum)	Area =	26	ft^2
ˉ Full height notch-type weir	Width (W) =	3.0	in

Notes:



390
380
380
370
1370
1365
1360
2:1
2:1
2:1
2:1
15%
65
70
R=300'
1360
1365
1370
NAPOLI WAY
372.3
FS
65'
24" S.D.
62'
375.5
FS
6.5%

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Tract 36557 Basin "A"

This Table compares the Results of Flood Routing Onsite Hydrograph through Retarding Basin & Combining the Natural Offsite Hydrographs to the Point of Concentration of the Existing Hydrograph.

Peak Flow Rate (cfs)

		Existing				Flood Routed			
		202.9				45.6 + 67.2 + 47.1 + 42.0 = 201.9			
		1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr
2-yr	Q cfs	119.0	72.7	62.6	9.6	83.7	52.6	44.8	8.5
5-yr	Q cfs	187.7	126.3	112.1	19.6	132.7	93.1	84.7	19.0
10-yr	Q cfs	276.8	205.1	187.2	71.4	199.2	155.2	148.2	66.7

		Existing (Subarea 1)				Existing (Subarea 2)				Developed (Subarea 3)				Natural (Subarea 4)			
		45.6 Ac				67.2 Ac				47.1				42.0			
		1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr
2-yr	Q cfs	30.3	15.1	12.7	2.6	42.8	25.7	22.2	2.2	42.0	25.5	22.9	8.0	30.8	17.5	15.0	2.0
5-yr	Q cfs	47.8	27.9	24.0	3.7	66.8	44.0	38.9	7.4	61.1	39.6	36.3	11.4	47.2	29.5	25.6	5.2
10-yr	Q cfs	69.5	45.9	40.4	13.4	97.8	71.1	64.7	25.4	81.2	55.6	51.6	19.4	67.5	46.4	41.6	16.2

Storage Capacity Calculations

Tract 32786 Basin "A"

PREPARED: 9/2/2013

BASIN DEPTH	ELEV.	CONTOUR INTERVAL	AREA (Sq. Ft.)	MEAN AREA (Sq. Ft.)	MEAN AREA (Acres.)	TOTAL VOLUME (Ac. Ft.)
0	359.67		1,113			0
		0.33		2,401.0	0.055	
0.33	360		3,689			0.02
		0.33		5,472.0	0.126	
0.66	360.33		7,255			0.06
		0.34		8,659.0	0.199	
1	360.67		10,063			0.13
		0.33		10,679.7	0.245	
1.33	361		11,297			0.21
		0.33		11,613.7	0.267	
1.66	361.33		11,931			0.30
		0.34		12,255.2	0.281	
2	361.67		12,580			0.39
		0.33		12,915.4	0.296	
2.33	362		13,251			0.49
		0.33		13,588.3	0.312	
2.66	362.33		13,926			0.59
		0.34		14,271.7	0.328	
3	362.67		14,618			0.70
		0.33		14,960.8	0.343	
3.33	363		15,304			0.82
		0.33		15,492.0	0.356	
3.66	363.33		15,680			0.93
		0.34		15,872.5	0.364	
4	363.67		16,065			1.06
		0.33		16,248.7	0.373	
4.33	364		16,433			1.18
		1		16,995.6	0.390	
5.33	365		17,559			1.57
		1		18,132.5	0.416	
6.33	366		18,706			1.99
		1		19,300.7	0.443	
7.33	367		19,895			2.43
		1		20,489.3	0.470	
8.33	368		21,084			2.90
		2		22,356.5	0.513	
10.33	370		23,629			3.93
		2		25,057.4	0.575	
12.33	372		26,485			5.08
		1		25,739.7	0.591	
13.33	373		27,850			5.67
	Storage Capacity AcFt		5.67	Storage Capacity CuFt		246,958

DEPTH vs OUTFLOW CALCULATIONS

Tr. 32786 Water Quality & Retarding Basin "A"

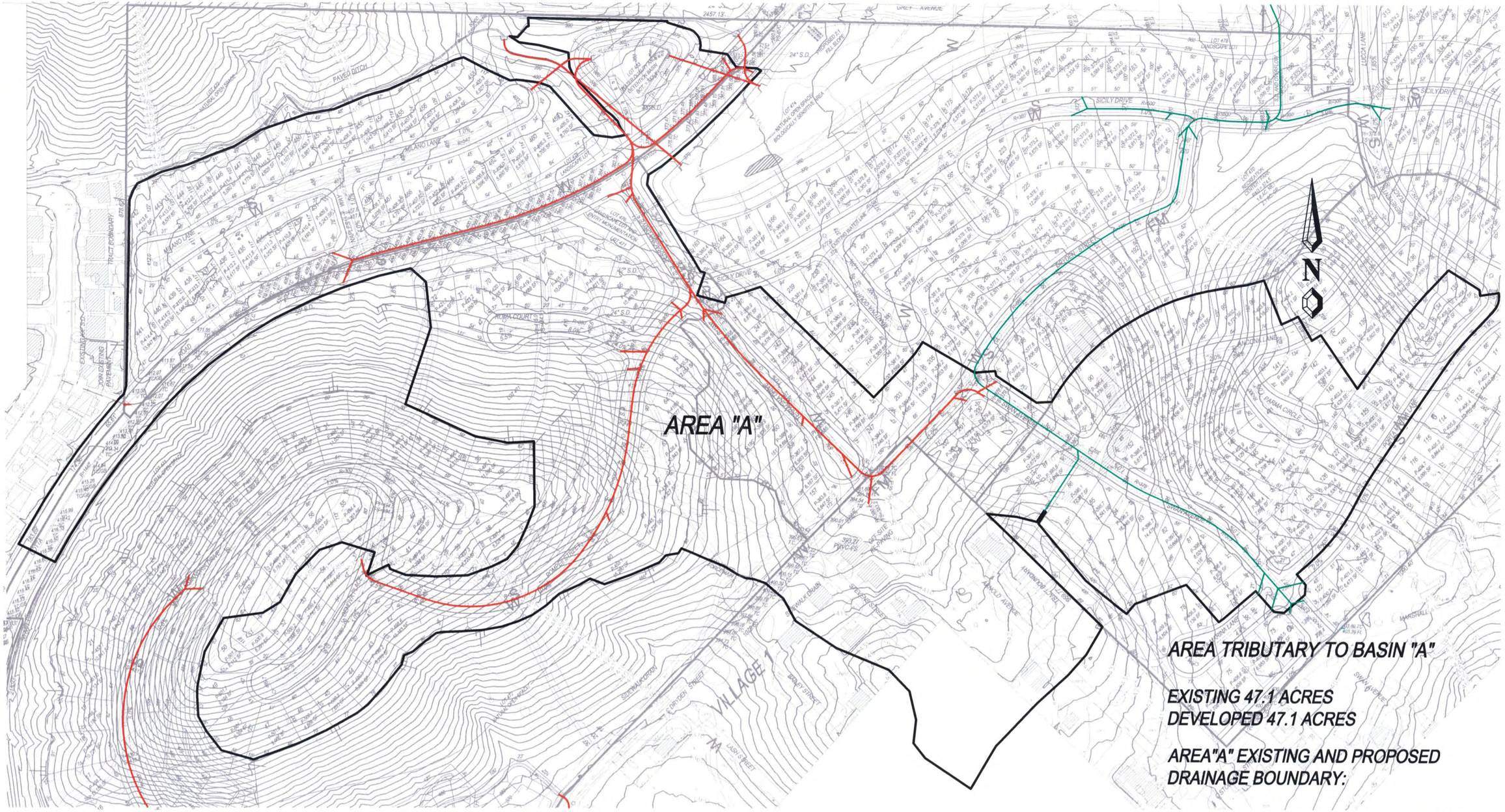
	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Slots	Slots	Weir	Weir	
No. of Holes & Slots →	2	3	3	3	3	3	3	3	0	0	0	0	1	← No. of Weir
	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Slot C	Slot C	Weir C	Weir C	
Discharge Coefficient →	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	3.33	3.33	← Weir Coefficient
	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Slot FL	Slot FL	Dist to Weir	Dist to Weir	
Distance of Holes to Basin Bottom (in) →	0	68	72	76	113	117	121	124	0	0	0	0	137	← Distance of Top of Riser Pipe from Basin Bottom (in)
	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Area	Area	Weir Length (ft)	Weir Length (ft)	
Hole Radius (in) Slots Area (sq ft) →	0.9	1	1	1	1.5	1.45	1	1	0	0	0	0	30	← Riser Perimeter (ft) = 2(12)+6
	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Weir Elev	Weir Elev	
Hole Centerline Elev (ft) →	359.75	365.42	365.75	366.09	369.21	369.54	369.84	370.09	359.67	359.67	359.67	359.67	371.09	← Top of Riser Elevation (ft)

Elevation	Depth	Basin Volume	Outflow													
359.67	0	0	0													
360.00	0.33	0.02	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.33	0.66	0.06	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.67	1.00	0.13	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
363.33	3.66	0.93	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
363.67	4.00	1.08	0.37	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
365.00	5.33	1.57	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
366.00	6.33	1.99	0.90	0.47	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
368.67	9.00	3.25	2.33	0.56	0.62	0.59	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
369.17	9.50	3.51	2.50	0.57	0.67	0.64	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
369.67	10.00	3.76	3.44	0.59	0.71	0.69	0.66	0.53	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
370.17	10.50	4.04	4.43	0.60	0.76	0.73	0.70	0.76	0.58	0.20	0.10	0.00	0.00	0.00	0.00	0.00
370.42	10.75	4.18	4.86	0.61	0.78	0.75	0.72	0.86	0.68	0.26	0.20	0.00	0.00	0.00	0.00	0.00
370.67	11.00	4.32	5.22	0.62	0.79	0.77	0.74	0.94	0.77	0.32	0.26	0.00	0.00	0.00	0.00	0.00
371.00	11.33	4.51	5.64	0.63	0.82	0.79	0.77	1.04	0.88	0.37	0.33	0.00	0.00	0.00	0.00	0.00
371.33	11.66	4.71	18.00	0.64	0.84	0.82	0.79	1.14	0.97	0.42	0.39	0.00	0.00	0.00	0.00	11.99
372.00	12.33	5.08	93.89	0.66	0.89	0.87	0.84	1.30	1.14	0.51	0.48	0.00	0.00	0.00	0.00	87.20

[Σ Flows (Holes + Weir)] (Outflow through Holes) (Outflow through Slots) (Outflow over Top of Weir)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.66 used here
   A = Orifice Area
   H = Headwater, Elevation of Water to Cen. of Orifice
2. Slot outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.66 used here
   A = Slot Area (sq.ft.)
   H = Headwater, Elevation of Water to Cen. of Slot
3. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 3.33 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater, Elevation of Water to Top of Weir



AREA TRIBUTARY TO BASIN "A"

EXISTING 47.1 ACRES
DEVELOPED 47.1 ACRES

AREA"A" EXISTING AND PROPOSED DRAINAGE BOUNDARY:

THE SAME DRAINAGE BOUNDARY WAS USED FOR BOTH THE EXISTING AND PROPOSED UNIT HYDROLOGY STUDY. THE EXISTING UNIT HYDROLOGY STUDY USED THE EXISTING GROUND COVER WHILE THE PROPOSED UNIT HYDROLOGY STUDY USED THE DEVELOPED GROUND COVER.

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/30/13 File: 32786ADevEx242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6194

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TTM 32786
2-Year 24-Hour Unit Hydrograph Analysis Area "A" Subarea 3
Existing Condition

Drainage Area = 47.10(Ac.) = 0.074 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 47.10(Ac.) = 0.074 Sq. Mi.
Length along longest watercourse = 3121.00(Ft.)
Length along longest watercourse measured to centroid = 768.00(Ft.)
Length along longest watercourse = 0.591 Mi.
Length along longest watercourse measured to centroid = 0.145 Mi.
Difference in elevation = 48.00(Ft.)
Slope along watercourse = 81.2047 Ft./Mi.
Average Manning's 'N' = 0.025
Lag time = 0.102 Hr.
Lag time = 6.15 Min.
25% of lag time = 1.54 Min.
40% of lag time = 2.46 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
47.10	2.48	116.81

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
47.10	6.90	324.99

STORM EVENT (YEAR) = 2.00

Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.480(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
9.600	70.00	0.000
13.400	80.00	0.000
17.200	85.00	0.000
3.700	69.00	0.500
3.200	75.00	0.500

Total Area Entered = 47.10(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
70.0	51.0	0.562	0.000	0.562	0.204	0.115
80.0	63.0	0.438	0.000	0.438	0.285	0.124
85.0	70.0	0.362	0.000	0.362	0.365	0.132
69.0	49.8	0.574	0.500	0.316	0.079	0.025
75.0	57.0	0.501	0.500	0.275	0.068	0.019
					Sum (F) =	0.415

Area averaged mean soil loss (F) (In/Hr) = 0.415
Minimum soil loss rate ((In/Hr)) = 0.207
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.841

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	81.362	13.681	6.494
2	0.167	162.724	44.873	21.300
3	0.250	244.086	19.548	9.279
4	0.333	325.447	8.156	3.871
5	0.417	406.809	4.888	2.320
6	0.500	488.171	3.055	1.450
7	0.583	569.533	2.217	1.052
8	0.667	650.895	1.502	0.713
9	0.750	732.257	0.996	0.473
10	0.833	813.619	1.084	0.515
			Sum = 100.000	Sum= 47.468

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time	Pattern	Storm Rain	Loss rate(In./Hr)	Effective

	(Hr.)	Percent	(In/Hr)	Max	Low	(In/Hr)
1	0.08	0.07	0.020	(0.735)	0.017	0.003
2	0.17	0.07	0.020	(0.732)	0.017	0.003
3	0.25	0.07	0.020	(0.729)	0.017	0.003
4	0.33	0.10	0.030	(0.727)	0.025	0.005
5	0.42	0.10	0.030	(0.724)	0.025	0.005
6	0.50	0.10	0.030	(0.721)	0.025	0.005
7	0.58	0.10	0.030	(0.718)	0.025	0.005
8	0.67	0.10	0.030	(0.715)	0.025	0.005
9	0.75	0.10	0.030	(0.713)	0.025	0.005
10	0.83	0.13	0.040	(0.710)	0.033	0.006
11	0.92	0.13	0.040	(0.707)	0.033	0.006
12	1.00	0.13	0.040	(0.704)	0.033	0.006
13	1.08	0.10	0.030	(0.701)	0.025	0.005
14	1.17	0.10	0.030	(0.699)	0.025	0.005
15	1.25	0.10	0.030	(0.696)	0.025	0.005
16	1.33	0.10	0.030	(0.693)	0.025	0.005
17	1.42	0.10	0.030	(0.690)	0.025	0.005
18	1.50	0.10	0.030	(0.688)	0.025	0.005
19	1.58	0.10	0.030	(0.685)	0.025	0.005
20	1.67	0.10	0.030	(0.682)	0.025	0.005
21	1.75	0.10	0.030	(0.679)	0.025	0.005
22	1.83	0.13	0.040	(0.677)	0.033	0.006
23	1.92	0.13	0.040	(0.674)	0.033	0.006
24	2.00	0.13	0.040	(0.671)	0.033	0.006
25	2.08	0.13	0.040	(0.668)	0.033	0.006
26	2.17	0.13	0.040	(0.666)	0.033	0.006
27	2.25	0.13	0.040	(0.663)	0.033	0.006
28	2.33	0.13	0.040	(0.660)	0.033	0.006
29	2.42	0.13	0.040	(0.658)	0.033	0.006
30	2.50	0.13	0.040	(0.655)	0.033	0.006
31	2.58	0.17	0.050	(0.652)	0.042	0.008
32	2.67	0.17	0.050	(0.650)	0.042	0.008
33	2.75	0.17	0.050	(0.647)	0.042	0.008
34	2.83	0.17	0.050	(0.644)	0.042	0.008
35	2.92	0.17	0.050	(0.642)	0.042	0.008
36	3.00	0.17	0.050	(0.639)	0.042	0.008
37	3.08	0.17	0.050	(0.636)	0.042	0.008
38	3.17	0.17	0.050	(0.634)	0.042	0.008
39	3.25	0.17	0.050	(0.631)	0.042	0.008
40	3.33	0.17	0.050	(0.628)	0.042	0.008
41	3.42	0.17	0.050	(0.626)	0.042	0.008
42	3.50	0.17	0.050	(0.623)	0.042	0.008
43	3.58	0.17	0.050	(0.621)	0.042	0.008
44	3.67	0.17	0.050	(0.618)	0.042	0.008
45	3.75	0.17	0.050	(0.615)	0.042	0.008
46	3.83	0.20	0.060	(0.613)	0.050	0.009
47	3.92	0.20	0.060	(0.610)	0.050	0.009
48	4.00	0.20	0.060	(0.608)	0.050	0.009
49	4.08	0.20	0.060	(0.605)	0.050	0.009
50	4.17	0.20	0.060	(0.602)	0.050	0.009
51	4.25	0.20	0.060	(0.600)	0.050	0.009
52	4.33	0.23	0.069	(0.597)	0.058	0.011
53	4.42	0.23	0.069	(0.595)	0.058	0.011
54	4.50	0.23	0.069	(0.592)	0.058	0.011
55	4.58	0.23	0.069	(0.590)	0.058	0.011
56	4.67	0.23	0.069	(0.587)	0.058	0.011

57	4.75	0.23	0.069	(0.585)	0.058	0.011
58	4.83	0.27	0.079	(0.582)	0.067	0.013
59	4.92	0.27	0.079	(0.580)	0.067	0.013
60	5.00	0.27	0.079	(0.577)	0.067	0.013
61	5.08	0.20	0.060	(0.575)	0.050	0.009
62	5.17	0.20	0.060	(0.572)	0.050	0.009
63	5.25	0.20	0.060	(0.570)	0.050	0.009
64	5.33	0.23	0.069	(0.567)	0.058	0.011
65	5.42	0.23	0.069	(0.565)	0.058	0.011
66	5.50	0.23	0.069	(0.562)	0.058	0.011
67	5.58	0.27	0.079	(0.560)	0.067	0.013
68	5.67	0.27	0.079	(0.557)	0.067	0.013
69	5.75	0.27	0.079	(0.555)	0.067	0.013
70	5.83	0.27	0.079	(0.552)	0.067	0.013
71	5.92	0.27	0.079	(0.550)	0.067	0.013
72	6.00	0.27	0.079	(0.547)	0.067	0.013
73	6.08	0.30	0.089	(0.545)	0.075	0.014
74	6.17	0.30	0.089	(0.543)	0.075	0.014
75	6.25	0.30	0.089	(0.540)	0.075	0.014
76	6.33	0.30	0.089	(0.538)	0.075	0.014
77	6.42	0.30	0.089	(0.535)	0.075	0.014
78	6.50	0.30	0.089	(0.533)	0.075	0.014
79	6.58	0.33	0.099	(0.531)	0.083	0.016
80	6.67	0.33	0.099	(0.528)	0.083	0.016
81	6.75	0.33	0.099	(0.526)	0.083	0.016
82	6.83	0.33	0.099	(0.523)	0.083	0.016
83	6.92	0.33	0.099	(0.521)	0.083	0.016
84	7.00	0.33	0.099	(0.519)	0.083	0.016
85	7.08	0.33	0.099	(0.516)	0.083	0.016
86	7.17	0.33	0.099	(0.514)	0.083	0.016
87	7.25	0.33	0.099	(0.512)	0.083	0.016
88	7.33	0.37	0.109	(0.509)	0.092	0.017
89	7.42	0.37	0.109	(0.507)	0.092	0.017
90	7.50	0.37	0.109	(0.505)	0.092	0.017
91	7.58	0.40	0.119	(0.502)	0.100	0.019
92	7.67	0.40	0.119	(0.500)	0.100	0.019
93	7.75	0.40	0.119	(0.498)	0.100	0.019
94	7.83	0.43	0.129	(0.495)	0.108	0.020
95	7.92	0.43	0.129	(0.493)	0.108	0.020
96	8.00	0.43	0.129	(0.491)	0.108	0.020
97	8.08	0.50	0.149	(0.489)	0.125	0.024
98	8.17	0.50	0.149	(0.486)	0.125	0.024
99	8.25	0.50	0.149	(0.484)	0.125	0.024
100	8.33	0.50	0.149	(0.482)	0.125	0.024
101	8.42	0.50	0.149	(0.479)	0.125	0.024
102	8.50	0.50	0.149	(0.477)	0.125	0.024
103	8.58	0.53	0.159	(0.475)	0.134	0.025
104	8.67	0.53	0.159	(0.473)	0.134	0.025
105	8.75	0.53	0.159	(0.471)	0.134	0.025
106	8.83	0.57	0.169	(0.468)	0.142	0.027
107	8.92	0.57	0.169	(0.466)	0.142	0.027
108	9.00	0.57	0.169	(0.464)	0.142	0.027
109	9.08	0.63	0.188	(0.462)	0.159	0.030
110	9.17	0.63	0.188	(0.459)	0.159	0.030
111	9.25	0.63	0.188	(0.457)	0.159	0.030
112	9.33	0.67	0.198	(0.455)	0.167	0.031
113	9.42	0.67	0.198	(0.453)	0.167	0.031

114	9.50	0.67	0.198	(0.451)	0.167	0.031
115	9.58	0.70	0.208	(0.449)	0.175	0.033
116	9.67	0.70	0.208	(0.446)	0.175	0.033
117	9.75	0.70	0.208	(0.444)	0.175	0.033
118	9.83	0.73	0.218	(0.442)	0.184	0.035
119	9.92	0.73	0.218	(0.440)	0.184	0.035
120	10.00	0.73	0.218	(0.438)	0.184	0.035
121	10.08	0.50	0.149	(0.436)	0.125	0.024
122	10.17	0.50	0.149	(0.434)	0.125	0.024
123	10.25	0.50	0.149	(0.432)	0.125	0.024
124	10.33	0.50	0.149	(0.429)	0.125	0.024
125	10.42	0.50	0.149	(0.427)	0.125	0.024
126	10.50	0.50	0.149	(0.425)	0.125	0.024
127	10.58	0.67	0.198	(0.423)	0.167	0.031
128	10.67	0.67	0.198	(0.421)	0.167	0.031
129	10.75	0.67	0.198	(0.419)	0.167	0.031
130	10.83	0.67	0.198	(0.417)	0.167	0.031
131	10.92	0.67	0.198	(0.415)	0.167	0.031
132	11.00	0.67	0.198	(0.413)	0.167	0.031
133	11.08	0.63	0.188	(0.411)	0.159	0.030
134	11.17	0.63	0.188	(0.409)	0.159	0.030
135	11.25	0.63	0.188	(0.407)	0.159	0.030
136	11.33	0.63	0.188	(0.405)	0.159	0.030
137	11.42	0.63	0.188	(0.403)	0.159	0.030
138	11.50	0.63	0.188	(0.401)	0.159	0.030
139	11.58	0.57	0.169	(0.399)	0.142	0.027
140	11.67	0.57	0.169	(0.397)	0.142	0.027
141	11.75	0.57	0.169	(0.395)	0.142	0.027
142	11.83	0.60	0.179	(0.393)	0.150	0.028
143	11.92	0.60	0.179	(0.391)	0.150	0.028
144	12.00	0.60	0.179	(0.389)	0.150	0.028
145	12.08	0.83	0.248	(0.387)	0.209	0.039
146	12.17	0.83	0.248	(0.385)	0.209	0.039
147	12.25	0.83	0.248	(0.383)	0.209	0.039
148	12.33	0.87	0.258	(0.381)	0.217	0.041
149	12.42	0.87	0.258	(0.379)	0.217	0.041
150	12.50	0.87	0.258	(0.378)	0.217	0.041
151	12.58	0.93	0.278	(0.376)	0.234	0.044
152	12.67	0.93	0.278	(0.374)	0.234	0.044
153	12.75	0.93	0.278	(0.372)	0.234	0.044
154	12.83	0.97	0.288	(0.370)	0.242	0.046
155	12.92	0.97	0.288	(0.368)	0.242	0.046
156	13.00	0.97	0.288	(0.366)	0.242	0.046
157	13.08	1.13	0.337	(0.364)	0.284	0.053
158	13.17	1.13	0.337	(0.363)	0.284	0.053
159	13.25	1.13	0.337	(0.361)	0.284	0.053
160	13.33	1.13	0.337	(0.359)	0.284	0.053
161	13.42	1.13	0.337	(0.357)	0.284	0.053
162	13.50	1.13	0.337	(0.355)	0.284	0.053
163	13.58	0.77	0.228	(0.353)	0.192	0.036
164	13.67	0.77	0.228	(0.352)	0.192	0.036
165	13.75	0.77	0.228	(0.350)	0.192	0.036
166	13.83	0.77	0.228	(0.348)	0.192	0.036
167	13.92	0.77	0.228	(0.346)	0.192	0.036
168	14.00	0.77	0.228	(0.344)	0.192	0.036
169	14.08	0.90	0.268	(0.343)	0.225	0.042
170	14.17	0.90	0.268	(0.341)	0.225	0.042

171	14.25	0.90	0.268	(0.339)	0.225	0.042
172	14.33	0.87	0.258	(0.337)	0.217	0.041
173	14.42	0.87	0.258	(0.336)	0.217	0.041
174	14.50	0.87	0.258	(0.334)	0.217	0.041
175	14.58	0.87	0.258	(0.332)	0.217	0.041
176	14.67	0.87	0.258	(0.331)	0.217	0.041
177	14.75	0.87	0.258	(0.329)	0.217	0.041
178	14.83	0.83	0.248	(0.327)	0.209	0.039
179	14.92	0.83	0.248	(0.326)	0.209	0.039
180	15.00	0.83	0.248	(0.324)	0.209	0.039
181	15.08	0.80	0.238	(0.322)	0.200	0.038
182	15.17	0.80	0.238	(0.321)	0.200	0.038
183	15.25	0.80	0.238	(0.319)	0.200	0.038
184	15.33	0.77	0.228	(0.317)	0.192	0.036
185	15.42	0.77	0.228	(0.316)	0.192	0.036
186	15.50	0.77	0.228	(0.314)	0.192	0.036
187	15.58	0.63	0.188	(0.312)	0.159	0.030
188	15.67	0.63	0.188	(0.311)	0.159	0.030
189	15.75	0.63	0.188	(0.309)	0.159	0.030
190	15.83	0.63	0.188	(0.308)	0.159	0.030
191	15.92	0.63	0.188	(0.306)	0.159	0.030
192	16.00	0.63	0.188	(0.305)	0.159	0.030
193	16.08	0.13	0.040	(0.303)	0.033	0.006
194	16.17	0.13	0.040	(0.301)	0.033	0.006
195	16.25	0.13	0.040	(0.300)	0.033	0.006
196	16.33	0.13	0.040	(0.298)	0.033	0.006
197	16.42	0.13	0.040	(0.297)	0.033	0.006
198	16.50	0.13	0.040	(0.295)	0.033	0.006
199	16.58	0.10	0.030	(0.294)	0.025	0.005
200	16.67	0.10	0.030	(0.292)	0.025	0.005
201	16.75	0.10	0.030	(0.291)	0.025	0.005
202	16.83	0.10	0.030	(0.289)	0.025	0.005
203	16.92	0.10	0.030	(0.288)	0.025	0.005
204	17.00	0.10	0.030	(0.286)	0.025	0.005
205	17.08	0.17	0.050	(0.285)	0.042	0.008
206	17.17	0.17	0.050	(0.284)	0.042	0.008
207	17.25	0.17	0.050	(0.282)	0.042	0.008
208	17.33	0.17	0.050	(0.281)	0.042	0.008
209	17.42	0.17	0.050	(0.279)	0.042	0.008
210	17.50	0.17	0.050	(0.278)	0.042	0.008
211	17.58	0.17	0.050	(0.277)	0.042	0.008
212	17.67	0.17	0.050	(0.275)	0.042	0.008
213	17.75	0.17	0.050	(0.274)	0.042	0.008
214	17.83	0.13	0.040	(0.272)	0.033	0.006
215	17.92	0.13	0.040	(0.271)	0.033	0.006
216	18.00	0.13	0.040	(0.270)	0.033	0.006
217	18.08	0.13	0.040	(0.268)	0.033	0.006
218	18.17	0.13	0.040	(0.267)	0.033	0.006
219	18.25	0.13	0.040	(0.266)	0.033	0.006
220	18.33	0.13	0.040	(0.264)	0.033	0.006
221	18.42	0.13	0.040	(0.263)	0.033	0.006
222	18.50	0.13	0.040	(0.262)	0.033	0.006
223	18.58	0.10	0.030	(0.261)	0.025	0.005
224	18.67	0.10	0.030	(0.259)	0.025	0.005
225	18.75	0.10	0.030	(0.258)	0.025	0.005
226	18.83	0.07	0.020	(0.257)	0.017	0.003
227	18.92	0.07	0.020	(0.256)	0.017	0.003

228	19.00	0.07	0.020	(0.254)	0.017	0.003
229	19.08	0.10	0.030	(0.253)	0.025	0.005
230	19.17	0.10	0.030	(0.252)	0.025	0.005
231	19.25	0.10	0.030	(0.251)	0.025	0.005
232	19.33	0.13	0.040	(0.250)	0.033	0.006
233	19.42	0.13	0.040	(0.249)	0.033	0.006
234	19.50	0.13	0.040	(0.247)	0.033	0.006
235	19.58	0.10	0.030	(0.246)	0.025	0.005
236	19.67	0.10	0.030	(0.245)	0.025	0.005
237	19.75	0.10	0.030	(0.244)	0.025	0.005
238	19.83	0.07	0.020	(0.243)	0.017	0.003
239	19.92	0.07	0.020	(0.242)	0.017	0.003
240	20.00	0.07	0.020	(0.241)	0.017	0.003
241	20.08	0.10	0.030	(0.240)	0.025	0.005
242	20.17	0.10	0.030	(0.239)	0.025	0.005
243	20.25	0.10	0.030	(0.238)	0.025	0.005
244	20.33	0.10	0.030	(0.237)	0.025	0.005
245	20.42	0.10	0.030	(0.236)	0.025	0.005
246	20.50	0.10	0.030	(0.235)	0.025	0.005
247	20.58	0.10	0.030	(0.234)	0.025	0.005
248	20.67	0.10	0.030	(0.233)	0.025	0.005
249	20.75	0.10	0.030	(0.232)	0.025	0.005
250	20.83	0.07	0.020	(0.231)	0.017	0.003
251	20.92	0.07	0.020	(0.230)	0.017	0.003
252	21.00	0.07	0.020	(0.229)	0.017	0.003
253	21.08	0.10	0.030	(0.228)	0.025	0.005
254	21.17	0.10	0.030	(0.227)	0.025	0.005
255	21.25	0.10	0.030	(0.226)	0.025	0.005
256	21.33	0.07	0.020	(0.225)	0.017	0.003
257	21.42	0.07	0.020	(0.224)	0.017	0.003
258	21.50	0.07	0.020	(0.224)	0.017	0.003
259	21.58	0.10	0.030	(0.223)	0.025	0.005
260	21.67	0.10	0.030	(0.222)	0.025	0.005
261	21.75	0.10	0.030	(0.221)	0.025	0.005
262	21.83	0.07	0.020	(0.220)	0.017	0.003
263	21.92	0.07	0.020	(0.220)	0.017	0.003
264	22.00	0.07	0.020	(0.219)	0.017	0.003
265	22.08	0.10	0.030	(0.218)	0.025	0.005
266	22.17	0.10	0.030	(0.218)	0.025	0.005
267	22.25	0.10	0.030	(0.217)	0.025	0.005
268	22.33	0.07	0.020	(0.216)	0.017	0.003
269	22.42	0.07	0.020	(0.216)	0.017	0.003
270	22.50	0.07	0.020	(0.215)	0.017	0.003
271	22.58	0.07	0.020	(0.214)	0.017	0.003
272	22.67	0.07	0.020	(0.214)	0.017	0.003
273	22.75	0.07	0.020	(0.213)	0.017	0.003
274	22.83	0.07	0.020	(0.213)	0.017	0.003
275	22.92	0.07	0.020	(0.212)	0.017	0.003
276	23.00	0.07	0.020	(0.211)	0.017	0.003
277	23.08	0.07	0.020	(0.211)	0.017	0.003
278	23.17	0.07	0.020	(0.210)	0.017	0.003
279	23.25	0.07	0.020	(0.210)	0.017	0.003
280	23.33	0.07	0.020	(0.210)	0.017	0.003
281	23.42	0.07	0.020	(0.209)	0.017	0.003
282	23.50	0.07	0.020	(0.209)	0.017	0.003
283	23.58	0.07	0.020	(0.208)	0.017	0.003
284	23.67	0.07	0.020	(0.208)	0.017	0.003

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285  23.75     0.07      0.020       (  0.208)       0.017        0.003
286  23.83     0.07      0.020       (  0.208)       0.017        0.003
287  23.92     0.07      0.020       (  0.208)       0.017        0.003
288  24.00     0.07      0.020       (  0.207)       0.017        0.003
            (Loss Rate Not Used)
    Sum =     100.0                                   Sum =     4.7
     Flood volume = Effective rainfall      0.39(In)
      times area      47.1(Ac.)/[(In)/(Ft.)] =       1.5(Ac.Ft)
     Total soil loss =      2.09(In)
     Total soil loss =     8.189(Ac.Ft)
     Total rainfall =      2.48(In)
     Flood volume =       67242.3 Cubic Feet
     Total soil loss =      356731.8 Cubic Feet
     ------------------------------------------------------------------
      Peak flow rate of this hydrograph =      2.518(CFS)
     ------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
     ------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     ------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------
   0+ 5       0.0001      0.02  Q          |         |         |         |
   0+10       0.0007      0.09  Q          |         |         |         |
   0+15       0.0015      0.12  Q          |         |         |         |
   0+20       0.0025      0.14  Q          |         |         |         |
   0+25       0.0037      0.18  Q          |         |         |         |
   0+30       0.0051      0.20  Q          |         |         |         |
   0+35       0.0066      0.21  Q          |         |         |         |
   0+40       0.0080      0.21  Q          |         |         |         |
   0+45       0.0095      0.22  Q          |         |         |         |
   0+50       0.0111      0.23  Q          |         |         |         |
   0+55       0.0130      0.27  VQ         |         |         |         |
   1+ 0       0.0149      0.28  VQ         |         |         |         |
   1+ 5       0.0168      0.28  VQ         |         |         |         |
   1+10       0.0185      0.25  Q          |         |         |         |
   1+15       0.0202      0.24  Q          |         |         |         |
   1+20       0.0218      0.23  Q          |         |         |         |
   1+25       0.0233      0.23  Q          |         |         |         |
   1+30       0.0249      0.23  Q          |         |         |         |
   1+35       0.0265      0.23  Q          |         |         |         |
   1+40       0.0280      0.23  Q          |         |         |         |
   1+45       0.0296      0.22  Q          |         |         |         |
   1+50       0.0312      0.23  Q          |         |         |         |
   1+55       0.0330      0.27  VQ         |         |         |         |
   2+ 0       0.0350      0.28  VQ         |         |         |         |
   2+ 5       0.0370      0.29  VQ         |         |         |         |
   2+10       0.0390      0.29  |Q         |         |         |         |
   2+15       0.0410      0.29  |Q         |         |         |         |
   2+20       0.0430      0.30  |Q         |         |         |         |
   2+25       0.0451      0.30  |Q         |         |         |         |
   2+30       0.0471      0.30  |Q         |         |         |         |
   2+35       0.0493      0.31  |Q         |         |         |         |
   2+40       0.0516      0.34  |Q         |         |         |         |
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2+45	0.0541	0.36	Q			
2+50	0.0566	0.36	Q			
2+55	0.0591	0.37	Q			
3+ 0	0.0617	0.37	Q			
3+ 5	0.0642	0.37	Q			
3+10	0.0668	0.37	Q			
3+15	0.0693	0.37	Q			
3+20	0.0719	0.37	Q			
3+25	0.0745	0.37	Q			
3+30	0.0771	0.37	Q			
3+35	0.0796	0.37	QV			
3+40	0.0822	0.37	QV			
3+45	0.0848	0.37	QV			
3+50	0.0874	0.38	QV			
3+55	0.0903	0.42	QV			
4+ 0	0.0933	0.43	QV			
4+ 5	0.0963	0.44	QV			
4+10	0.0993	0.44	QV			
4+15	0.1024	0.44	QV			
4+20	0.1055	0.46	QV			
4+25	0.1089	0.49	QV			
4+30	0.1124	0.51	Q			
4+35	0.1159	0.51	QV			
4+40	0.1195	0.52	QV			
4+45	0.1230	0.52	QV			
4+50	0.1267	0.53	QV			
4+55	0.1306	0.57	QV			
5+ 0	0.1346	0.58	QV			
5+ 5	0.1385	0.57	QV			
5+10	0.1420	0.50	QV			
5+15	0.1452	0.48	Q V			
5+20	0.1485	0.48	Q V			
5+25	0.1520	0.50	QV			
5+30	0.1555	0.51	Q V			
5+35	0.1592	0.53	Q V			
5+40	0.1631	0.56	Q V			
5+45	0.1670	0.58	Q V			
5+50	0.1711	0.58	Q V			
5+55	0.1751	0.59	Q V			
6+ 0	0.1792	0.59	Q V			
6+ 5	0.1834	0.61	Q V			
6+10	0.1878	0.64	Q V			
6+15	0.1923	0.66	Q V			
6+20	0.1969	0.66	Q V			
6+25	0.2014	0.67	Q V			
6+30	0.2060	0.67	Q V			
6+35	0.2107	0.68	Q V			
6+40	0.2157	0.71	Q V			
6+45	0.2207	0.73	Q V			
6+50	0.2258	0.74	Q V			
6+55	0.2309	0.74	Q V			
7+ 0	0.2360	0.74	Q V			
7+ 5	0.2411	0.74	Q V			
7+10	0.2462	0.75	Q V			
7+15	0.2514	0.75	Q V			
7+20	0.2566	0.76	Q V			
7+25	0.2620	0.79	Q V			

```
 7+30      0.2676      0.81  |  Q  V   |         |         |         |
 7+35      0.2732      0.82  |  Q   V  |         |         |         |
 7+40      0.2792      0.86  |  Q   V  |         |         |         |
 7+45      0.2852      0.88  |  Q   V  |         |         |         |
 7+50      0.2913      0.89  |  Q   V  |         |         |         |
 7+55      0.2978      0.93  |  Q   V  |         |         |         |
 8+ 0      0.3043      0.95  |  Q   V  |         |         |         |
 8+ 5      0.3110      0.98  |  Q    V |         |         |         |
 8+10      0.3183      1.05  |   Q   V |         |         |         |
 8+15      0.3257      1.08  |   Q   V |         |         |         |
 8+20      0.3333      1.10  |   Q   V |         |         |         |
 8+25      0.3409      1.11  |   Q   V |         |         |         |
 8+30      0.3486      1.11  |   Q    V|         |         |         |
 8+35      0.3563      1.13  |   Q    V|         |         |         |
 8+40      0.3643      1.16  |   Q    V|         |         |         |
 8+45      0.3724      1.18  |   Q    V|         |         |         |
 8+50      0.3807      1.20  |   Q    V|         |         |         |
 8+55      0.3891      1.23  |   Q     V         |         |         |
 9+ 0      0.3978      1.25  |   Q     V         |         |         |
 9+ 5      0.4066      1.28  |    Q    V         |         |         |
 9+10      0.4158      1.35  |    Q    V         |         |         |
 9+15      0.4254      1.38  |    Q    |V        |         |         |
 9+20      0.4350      1.41  |    Q    |V        |         |         |
 9+25      0.4450      1.45  |    Q    |V        |         |         |
 9+30      0.4551      1.47  |    Q    |V        |         |         |
 9+35      0.4654      1.49  |    Q    | V       |         |         |
 9+40      0.4759      1.53  |     Q   | V       |         |         |
 9+45      0.4866      1.55  |     Q   | V       |         |         |
 9+50      0.4974      1.57  |     Q   | V       |         |         |
 9+55      0.5084      1.60  |     Q   |  V      |         |         |
10+ 0      0.5196      1.62  |     Q   |  V      |         |         |
10+ 5      0.5303      1.56  |     Q   |  V      |         |         |
10+10      0.5395      1.33  |    Q    |  V      |         |         |
10+15      0.5479      1.23  |   Q     |   V     |         |         |
10+20      0.5561      1.19  |   Q     |   V     |         |         |
10+25      0.5642      1.17  |   Q     |   V     |         |         |
10+30      0.5721      1.15  |   Q     |   V     |         |         |
10+35      0.5803      1.19  |   Q     |    V    |         |         |
10+40      0.5896      1.35  |    Q    |    V    |         |         |
10+45      0.5994      1.42  |    Q    |    V    |         |         |
10+50      0.6093      1.44  |    Q    |    V    |         |         |
10+55      0.6194      1.46  |    Q    |     V   |         |         |
11+ 0      0.6295      1.47  |    Q    |     V   |         |         |
11+ 5      0.6396      1.47  |    Q    |     V   |         |         |
11+10      0.6496      1.44  |    Q    |     V   |         |         |
11+15      0.6594      1.43  |    Q    |      V  |         |         |
11+20      0.6693      1.43  |    Q    |      V  |         |         |
11+25      0.6791      1.43  |    Q    |      V  |         |         |
11+30      0.6889      1.42  |    Q    |      V  |         |         |
11+35      0.6986      1.40  |    Q    |       V |         |         |
11+40      0.7077      1.33  |    Q    |       V |         |         |
11+45      0.7167      1.30  |    Q    |       V |         |         |
11+50      0.7257      1.30  |    Q    |       V |         |         |
11+55      0.7348      1.33  |    Q    |        V|         |         |
12+ 0      0.7440      1.34  |    Q    |        V|         |         |
12+ 5      0.7537      1.41  |    Q    |        V|         |         |
12+10      0.7651      1.65  |     Q   |        V|         |         |
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12+15      0.7771     1.75  |      Q  |         V         |         |
12+20      0.7896     1.80  |      Q  |         V         |         |
12+25      0.8024     1.86  |      Q  |         V         |         |
12+30      0.8155     1.90  |      Q  |         |V        |         |
12+35      0.8288     1.93  |      Q  |         |V        |         |
12+40      0.8426     2.01  |       Q |         |V        |         |
12+45      0.8568     2.05  |       Q |         | V       |         |
12+50      0.8711     2.08  |       Q |         | V       |         |
12+55      0.8857     2.12  |       Q |         | V       |         |
13+ 0      0.9004     2.14  |       Q |         |  V      |         |
13+ 5      0.9156     2.20  |       Q |         |  V      |         |
13+10      0.9319     2.38  |        Q|         |   V     |         |
13+15      0.9488     2.45  |        Q|         |   V     |         |
13+20      0.9660     2.49  |        Q|         |    V    |         |
13+25      0.9832     2.51  |         Q         |    V    |         |
13+30      1.0006     2.52  |         Q         |    V    |         |
13+35      1.0172     2.41  |        Q|         |     V   |         |
13+40      1.0313     2.05  |       Q |         |     V   |         |
13+45      1.0444     1.89  |      Q  |         |      V  |         |
13+50      1.0570     1.83  |      Q  |         |      V  |         |
13+55      1.0693     1.79  |      Q  |         |      V  |         |
14+ 0      1.0815     1.77  |      Q  |         |       V |         |
14+ 5      1.0938     1.79  |      Q  |         |       V |         |
14+10      1.1069     1.91  |      Q  |         |       V |         |
14+15      1.1205     1.96  |      Q  |         |        V|         |
14+20      1.1340     1.97  |      Q  |         |        V|         |
14+25      1.1474     1.95  |      Q  |         |        V|         |
14+30      1.1608     1.94  |      Q  |         |         V         |
14+35      1.1741     1.94  |      Q  |         |         V         |
14+40      1.1875     1.94  |      Q  |         |         V         |
14+45      1.2009     1.94  |      Q  |         |         |V        |
14+50      1.2142     1.94  |      Q  |         |         |V        |
14+55      1.2273     1.90  |      Q  |         |         |V        |
15+ 0      1.2403     1.89  |      Q  |         |         | V       |
15+ 5      1.2532     1.87  |      Q  |         |         | V       |
15+10      1.2658     1.83  |      Q  |         |         | V       |
15+15      1.2783     1.81  |      Q  |         |         |  V      |
15+20      1.2906     1.80  |      Q  |         |         |  V      |
15+25      1.3027     1.76  |      Q  |         |         |  V      |
15+30      1.3147     1.74  |     Q   |         |         |   V     |
15+35      1.3264     1.69  |     Q   |         |         |   V     |
15+40      1.3371     1.55  |     Q   |         |         |   V     |
15+45      1.3473     1.49  |    Q    |         |         |   V     |
15+50      1.3574     1.46  |    Q    |         |         |    V    |
15+55      1.3674     1.45  |    Q    |         |         |    V    |
16+ 0      1.3773     1.44  |    Q    |         |         |    V    |
16+ 5      1.3861     1.28  |    Q    |         |         |    V    |
16+10      1.3914     0.77  |  Q      |         |         |     V   |
16+15      1.3951     0.55  | Q       |         |         |     V   |
16+20      1.3983     0.45  |Q        |         |         |     V   |
16+25      1.4010     0.40  |Q        |         |         |     V   |
16+30      1.4035     0.36  |Q        |         |         |     V   |
16+35      1.4058     0.33  |Q        |         |         |     V   |
16+40      1.4077     0.28  |Q        |         |         |     V   |
16+45      1.4094     0.25  |Q        |         |         |     V   |
16+50      1.4110     0.23  Q         |         |         |     V   |
16+55      1.4126     0.23  Q         |         |         |     V   |
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17+ 0      1.4142     0.23  Q          |          |          |      V    |
17+ 5      1.4159     0.25  Q          |          |          |      V    |
17+10      1.4181     0.31  |Q         |          |          |      V    |
17+15      1.4204     0.34  |Q         |          |          |      V    |
17+20      1.4228     0.35  |Q         |          |          |      V    |
17+25      1.4253     0.36  |Q         |          |          |      V    |
17+30      1.4278     0.36  |Q         |          |          |      V    |
17+35      1.4304     0.37  |Q         |          |          |       V   |
17+40      1.4329     0.37  |Q         |          |          |       V   |
17+45      1.4355     0.37  |Q         |          |          |       V   |
17+50      1.4380     0.36  |Q         |          |          |       V   |
17+55      1.4403     0.33  |Q         |          |          |       V   |
18+ 0      1.4424     0.32  |Q         |          |          |       V   |
18+ 5      1.4446     0.31  |Q         |          |          |       V   |
18+10      1.4467     0.31  |Q         |          |          |       V   |
18+15      1.4488     0.30  |Q         |          |          |       V   |
18+20      1.4508     0.30  |Q         |          |          |       V   |
18+25      1.4529     0.30  |Q         |          |          |       V   |
18+30      1.4550     0.30  |Q         |          |          |       V   |
18+35      1.4570     0.29  |Q         |          |          |       V   |
18+40      1.4587     0.26  |Q         |          |          |       V   |
18+45      1.4604     0.24  Q          |          |          |       V   |
18+50      1.4619     0.22  Q          |          |          |       V   |
18+55      1.4632     0.19  Q          |          |          |       V   |
19+ 0      1.4644     0.17  Q          |          |          |       V   |
19+ 5      1.4656     0.17  Q          |          |          |       V   |
19+10      1.4669     0.20  Q          |          |          |        V  |
19+15      1.4684     0.21  Q          |          |          |        V  |
19+20      1.4700     0.23  Q          |          |          |        V  |
19+25      1.4718     0.26  |Q         |          |          |        V  |
19+30      1.4737     0.28  |Q         |          |          |        V  |
19+35      1.4756     0.28  |Q         |          |          |        V  |
19+40      1.4773     0.25  Q          |          |          |        V  |
19+45      1.4789     0.24  Q          |          |          |        V  |
19+50      1.4805     0.22  Q          |          |          |        V  |
19+55      1.4817     0.19  Q          |          |          |        V  |
20+ 0      1.4829     0.17  Q          |          |          |        V  |
20+ 5      1.4841     0.17  Q          |          |          |        V  |
20+10      1.4855     0.20  Q          |          |          |        V  |
20+15      1.4869     0.21  Q          |          |          |        V  |
20+20      1.4884     0.22  Q          |          |          |        V  |
20+25      1.4899     0.22  Q          |          |          |        V  |
20+30      1.4915     0.22  Q          |          |          |        V  |
20+35      1.4930     0.22  Q          |          |          |        V  |
20+40      1.4945     0.22  Q          |          |          |        V  |
20+45      1.4961     0.22  Q          |          |          |        V  |
20+50      1.4975     0.21  Q          |          |          |        V  |
20+55      1.4988     0.18  Q          |          |          |        V  |
21+ 0      1.4999     0.17  Q          |          |          |        V  |
21+ 5      1.5011     0.17  Q          |          |          |        V  |
21+10      1.5025     0.20  Q          |          |          |        V  |
21+15      1.5039     0.21  Q          |          |          |        V  |
21+20      1.5053     0.21  Q          |          |          |         V|
21+25      1.5065     0.18  Q          |          |          |         V|
21+30      1.5077     0.16  Q          |          |          |         V|
21+35      1.5088     0.17  Q          |          |          |         V|
21+40      1.5102     0.20  Q          |          |          |         V|
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21+45	1.5116	0.21	Q				V
21+50	1.5131	0.21	Q				V
21+55	1.5143	0.18	Q				V
22+ 0	1.5154	0.16	Q				V
22+ 5	1.5165	0.17	Q				V
22+10	1.5179	0.20	Q				V
22+15	1.5194	0.21	Q				V
22+20	1.5208	0.21	Q				V
22+25	1.5220	0.18	Q				V
22+30	1.5231	0.16	Q				V
22+35	1.5242	0.16	Q				V
22+40	1.5252	0.15	Q				V
22+45	1.5263	0.15	Q				V
22+50	1.5273	0.15	Q				V
22+55	1.5284	0.15	Q				V
23+ 0	1.5294	0.15	Q				V
23+ 5	1.5304	0.15	Q				V
23+10	1.5315	0.15	Q				V
23+15	1.5325	0.15	Q				V
23+20	1.5335	0.15	Q				V
23+25	1.5346	0.15	Q				V
23+30	1.5356	0.15	Q				V
23+35	1.5366	0.15	Q				V
23+40	1.5377	0.15	Q				V
23+45	1.5387	0.15	Q				V
23+50	1.5397	0.15	Q				V
23+55	1.5407	0.15	Q				V
24+ 0	1.5418	0.15	Q				V
24+ 5	1.5427	0.13	Q				V
24+10	1.5431	0.06	Q				V
24+15	1.5433	0.03	Q				V
24+20	1.5435	0.02	Q				V
24+25	1.5435	0.01	Q				V
24+30	1.5436	0.01	Q				V
24+35	1.5436	0.01	Q				V
24+40	1.5437	0.00	Q				V
24+45	1.5437	0.00	Q				V

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/23/13 File: 32786ADev242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6194

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TTM 32786
2-Year 24-Hour Unit Hydrograph Analysis Area "A" Subarea 3
Developed Condition

Drainage Area = 47.10(Ac.) = 0.074 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 47.10(Ac.) = 0.074 Sq. Mi.
Length along longest watercourse = 3121.00(Ft.)
Length along longest watercourse measured to centroid = 768.00(Ft.)
Length along longest watercourse = 0.591 Mi.
Length along longest watercourse measured to centroid = 0.145 Mi.
Difference in elevation = 48.00(Ft.)
Slope along watercourse = 81.2047 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.061 Hr.
Lag time = 3.69 Min.
25% of lag time = 0.92 Min.
40% of lag time = 1.47 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
47.10	2.48	116.81

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
47.10	6.90	324.99

STORM EVENT (YEAR) = 2.00

Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.480(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
9.600	56.00	0.500
17.100	69.00	0.500
20.400	75.00	0.500

Total Area Entered = 47.10(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
56.0	36.0	0.706	0.500	0.388	0.204	0.079
69.0	49.8	0.574	0.500	0.316	0.363	0.115
75.0	57.0	0.501	0.500	0.275	0.433	0.119
					Sum (F) =	0.313

Area averaged mean soil loss (F) (In/Hr) = 0.313
Minimum soil loss rate ((In/Hr)) = 0.157
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.500

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	135.603	29.528	14.016
2	0.167	271.206	47.980	22.775
3	0.250	406.809	12.102	5.745
4	0.333	542.412	5.361	2.545
5	0.417	678.015	2.910	1.381
6	0.500	813.619	2.118	1.006
			Sum = 100.000	Sum= 47.468

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.555)	0.010	0.010
2	0.17	0.07	0.020	(0.553)	0.010	0.010
3	0.25	0.07	0.020	(0.551)	0.010	0.010
4	0.33	0.10	0.030	(0.548)	0.015	0.015
5	0.42	0.10	0.030	(0.546)	0.015	0.015
6	0.50	0.10	0.030	(0.544)	0.015	0.015
7	0.58	0.10	0.030	(0.542)	0.015	0.015

8	0.67	0.10	0.030	(0.540)	0.015	0.015
9	0.75	0.10	0.030	(0.538)	0.015	0.015
10	0.83	0.13	0.040	(0.536)	0.020	0.020
11	0.92	0.13	0.040	(0.534)	0.020	0.020
12	1.00	0.13	0.040	(0.531)	0.020	0.020
13	1.08	0.10	0.030	(0.529)	0.015	0.015
14	1.17	0.10	0.030	(0.527)	0.015	0.015
15	1.25	0.10	0.030	(0.525)	0.015	0.015
16	1.33	0.10	0.030	(0.523)	0.015	0.015
17	1.42	0.10	0.030	(0.521)	0.015	0.015
18	1.50	0.10	0.030	(0.519)	0.015	0.015
19	1.58	0.10	0.030	(0.517)	0.015	0.015
20	1.67	0.10	0.030	(0.515)	0.015	0.015
21	1.75	0.10	0.030	(0.513)	0.015	0.015
22	1.83	0.13	0.040	(0.511)	0.020	0.020
23	1.92	0.13	0.040	(0.509)	0.020	0.020
24	2.00	0.13	0.040	(0.507)	0.020	0.020
25	2.08	0.13	0.040	(0.505)	0.020	0.020
26	2.17	0.13	0.040	(0.502)	0.020	0.020
27	2.25	0.13	0.040	(0.500)	0.020	0.020
28	2.33	0.13	0.040	(0.498)	0.020	0.020
29	2.42	0.13	0.040	(0.496)	0.020	0.020
30	2.50	0.13	0.040	(0.494)	0.020	0.020
31	2.58	0.17	0.050	(0.492)	0.025	0.025
32	2.67	0.17	0.050	(0.490)	0.025	0.025
33	2.75	0.17	0.050	(0.488)	0.025	0.025
34	2.83	0.17	0.050	(0.486)	0.025	0.025
35	2.92	0.17	0.050	(0.484)	0.025	0.025
36	3.00	0.17	0.050	(0.482)	0.025	0.025
37	3.08	0.17	0.050	(0.480)	0.025	0.025
38	3.17	0.17	0.050	(0.478)	0.025	0.025
39	3.25	0.17	0.050	(0.476)	0.025	0.025
40	3.33	0.17	0.050	(0.474)	0.025	0.025
41	3.42	0.17	0.050	(0.472)	0.025	0.025
42	3.50	0.17	0.050	(0.470)	0.025	0.025
43	3.58	0.17	0.050	(0.468)	0.025	0.025
44	3.67	0.17	0.050	(0.466)	0.025	0.025
45	3.75	0.17	0.050	(0.464)	0.025	0.025
46	3.83	0.20	0.060	(0.462)	0.030	0.030
47	3.92	0.20	0.060	(0.461)	0.030	0.030
48	4.00	0.20	0.060	(0.459)	0.030	0.030
49	4.08	0.20	0.060	(0.457)	0.030	0.030
50	4.17	0.20	0.060	(0.455)	0.030	0.030
51	4.25	0.20	0.060	(0.453)	0.030	0.030
52	4.33	0.23	0.069	(0.451)	0.035	0.035
53	4.42	0.23	0.069	(0.449)	0.035	0.035
54	4.50	0.23	0.069	(0.447)	0.035	0.035
55	4.58	0.23	0.069	(0.445)	0.035	0.035
56	4.67	0.23	0.069	(0.443)	0.035	0.035
57	4.75	0.23	0.069	(0.441)	0.035	0.035
58	4.83	0.27	0.079	(0.439)	0.040	0.040
59	4.92	0.27	0.079	(0.437)	0.040	0.040
60	5.00	0.27	0.079	(0.436)	0.040	0.040
61	5.08	0.20	0.060	(0.434)	0.030	0.030
62	5.17	0.20	0.060	(0.432)	0.030	0.030
63	5.25	0.20	0.060	(0.430)	0.030	0.030
64	5.33	0.23	0.069	(0.428)	0.035	0.035

65	5.42	0.23	0.069	(0.426)	0.035	0.035
66	5.50	0.23	0.069	(0.424)	0.035	0.035
67	5.58	0.27	0.079	(0.422)	0.040	0.040
68	5.67	0.27	0.079	(0.421)	0.040	0.040
69	5.75	0.27	0.079	(0.419)	0.040	0.040
70	5.83	0.27	0.079	(0.417)	0.040	0.040
71	5.92	0.27	0.079	(0.415)	0.040	0.040
72	6.00	0.27	0.079	(0.413)	0.040	0.040
73	6.08	0.30	0.089	(0.411)	0.045	0.045
74	6.17	0.30	0.089	(0.409)	0.045	0.045
75	6.25	0.30	0.089	(0.408)	0.045	0.045
76	6.33	0.30	0.089	(0.406)	0.045	0.045
77	6.42	0.30	0.089	(0.404)	0.045	0.045
78	6.50	0.30	0.089	(0.402)	0.045	0.045
79	6.58	0.33	0.099	(0.400)	0.050	0.050
80	6.67	0.33	0.099	(0.399)	0.050	0.050
81	6.75	0.33	0.099	(0.397)	0.050	0.050
82	6.83	0.33	0.099	(0.395)	0.050	0.050
83	6.92	0.33	0.099	(0.393)	0.050	0.050
84	7.00	0.33	0.099	(0.391)	0.050	0.050
85	7.08	0.33	0.099	(0.390)	0.050	0.050
86	7.17	0.33	0.099	(0.388)	0.050	0.050
87	7.25	0.33	0.099	(0.386)	0.050	0.050
88	7.33	0.37	0.109	(0.384)	0.055	0.055
89	7.42	0.37	0.109	(0.383)	0.055	0.055
90	7.50	0.37	0.109	(0.381)	0.055	0.055
91	7.58	0.40	0.119	(0.379)	0.060	0.060
92	7.67	0.40	0.119	(0.377)	0.060	0.060
93	7.75	0.40	0.119	(0.376)	0.060	0.060
94	7.83	0.43	0.129	(0.374)	0.064	0.064
95	7.92	0.43	0.129	(0.372)	0.064	0.064
96	8.00	0.43	0.129	(0.370)	0.064	0.064
97	8.08	0.50	0.149	(0.369)	0.074	0.074
98	8.17	0.50	0.149	(0.367)	0.074	0.074
99	8.25	0.50	0.149	(0.365)	0.074	0.074
100	8.33	0.50	0.149	(0.364)	0.074	0.074
101	8.42	0.50	0.149	(0.362)	0.074	0.074
102	8.50	0.50	0.149	(0.360)	0.074	0.074
103	8.58	0.53	0.159	(0.358)	0.079	0.079
104	8.67	0.53	0.159	(0.357)	0.079	0.079
105	8.75	0.53	0.159	(0.355)	0.079	0.079
106	8.83	0.57	0.169	(0.353)	0.084	0.084
107	8.92	0.57	0.169	(0.352)	0.084	0.084
108	9.00	0.57	0.169	(0.350)	0.084	0.084
109	9.08	0.63	0.188	(0.348)	0.094	0.094
110	9.17	0.63	0.188	(0.347)	0.094	0.094
111	9.25	0.63	0.188	(0.345)	0.094	0.094
112	9.33	0.67	0.198	(0.344)	0.099	0.099
113	9.42	0.67	0.198	(0.342)	0.099	0.099
114	9.50	0.67	0.198	(0.340)	0.099	0.099
115	9.58	0.70	0.208	(0.339)	0.104	0.104
116	9.67	0.70	0.208	(0.337)	0.104	0.104
117	9.75	0.70	0.208	(0.335)	0.104	0.104
118	9.83	0.73	0.218	(0.334)	0.109	0.109
119	9.92	0.73	0.218	(0.332)	0.109	0.109
120	10.00	0.73	0.218	(0.331)	0.109	0.109
121	10.08	0.50	0.149	(0.329)	0.074	0.074

122	10.17	0.50	0.149	(0.327)	0.074	0.074
123	10.25	0.50	0.149	(0.326)	0.074	0.074
124	10.33	0.50	0.149	(0.324)	0.074	0.074
125	10.42	0.50	0.149	(0.323)	0.074	0.074
126	10.50	0.50	0.149	(0.321)	0.074	0.074
127	10.58	0.67	0.198	(0.319)	0.099	0.099
128	10.67	0.67	0.198	(0.318)	0.099	0.099
129	10.75	0.67	0.198	(0.316)	0.099	0.099
130	10.83	0.67	0.198	(0.315)	0.099	0.099
131	10.92	0.67	0.198	(0.313)	0.099	0.099
132	11.00	0.67	0.198	(0.312)	0.099	0.099
133	11.08	0.63	0.188	(0.310)	0.094	0.094
134	11.17	0.63	0.188	(0.309)	0.094	0.094
135	11.25	0.63	0.188	(0.307)	0.094	0.094
136	11.33	0.63	0.188	(0.306)	0.094	0.094
137	11.42	0.63	0.188	(0.304)	0.094	0.094
138	11.50	0.63	0.188	(0.303)	0.094	0.094
139	11.58	0.57	0.169	(0.301)	0.084	0.084
140	11.67	0.57	0.169	(0.300)	0.084	0.084
141	11.75	0.57	0.169	(0.298)	0.084	0.084
142	11.83	0.60	0.179	(0.297)	0.089	0.089
143	11.92	0.60	0.179	(0.295)	0.089	0.089
144	12.00	0.60	0.179	(0.294)	0.089	0.089
145	12.08	0.83	0.248	(0.292)	0.124	0.124
146	12.17	0.83	0.248	(0.291)	0.124	0.124
147	12.25	0.83	0.248	(0.289)	0.124	0.124
148	12.33	0.87	0.258	(0.288)	0.129	0.129
149	12.42	0.87	0.258	(0.286)	0.129	0.129
150	12.50	0.87	0.258	(0.285)	0.129	0.129
151	12.58	0.93	0.278	(0.283)	0.139	0.139
152	12.67	0.93	0.278	(0.282)	0.139	0.139
153	12.75	0.93	0.278	(0.281)	0.139	0.139
154	12.83	0.97	0.288	(0.279)	0.144	0.144
155	12.92	0.97	0.288	(0.278)	0.144	0.144
156	13.00	0.97	0.288	(0.276)	0.144	0.144
157	13.08	1.13	0.337	(0.275)	0.169	0.169
158	13.17	1.13	0.337	(0.274)	0.169	0.169
159	13.25	1.13	0.337	(0.272)	0.169	0.169
160	13.33	1.13	0.337	(0.271)	0.169	0.169
161	13.42	1.13	0.337	(0.269)	0.169	0.169
162	13.50	1.13	0.337	(0.268)	0.169	0.169
163	13.58	0.77	0.228	(0.267)	0.114	0.114
164	13.67	0.77	0.228	(0.265)	0.114	0.114
165	13.75	0.77	0.228	(0.264)	0.114	0.114
166	13.83	0.77	0.228	(0.263)	0.114	0.114
167	13.92	0.77	0.228	(0.261)	0.114	0.114
168	14.00	0.77	0.228	(0.260)	0.114	0.114
169	14.08	0.90	0.268	(0.259)	0.134	0.134
170	14.17	0.90	0.268	(0.257)	0.134	0.134
171	14.25	0.90	0.268	(0.256)	0.134	0.134
172	14.33	0.87	0.258	(0.255)	0.129	0.129
173	14.42	0.87	0.258	(0.253)	0.129	0.129
174	14.50	0.87	0.258	(0.252)	0.129	0.129
175	14.58	0.87	0.258	(0.251)	0.129	0.129
176	14.67	0.87	0.258	(0.250)	0.129	0.129
177	14.75	0.87	0.258	(0.248)	0.129	0.129
178	14.83	0.83	0.248	(0.247)	0.124	0.124

179	14.92	0.83	0.248	(0.246)	0.124	0.124
180	15.00	0.83	0.248	(0.244)	0.124	0.124
181	15.08	0.80	0.238	(0.243)	0.119	0.119
182	15.17	0.80	0.238	(0.242)	0.119	0.119
183	15.25	0.80	0.238	(0.241)	0.119	0.119
184	15.33	0.77	0.228	(0.239)	0.114	0.114
185	15.42	0.77	0.228	(0.238)	0.114	0.114
186	15.50	0.77	0.228	(0.237)	0.114	0.114
187	15.58	0.63	0.188	(0.236)	0.094	0.094
188	15.67	0.63	0.188	(0.235)	0.094	0.094
189	15.75	0.63	0.188	(0.233)	0.094	0.094
190	15.83	0.63	0.188	(0.232)	0.094	0.094
191	15.92	0.63	0.188	(0.231)	0.094	0.094
192	16.00	0.63	0.188	(0.230)	0.094	0.094
193	16.08	0.13	0.040	(0.229)	0.020	0.020
194	16.17	0.13	0.040	(0.228)	0.020	0.020
195	16.25	0.13	0.040	(0.226)	0.020	0.020
196	16.33	0.13	0.040	(0.225)	0.020	0.020
197	16.42	0.13	0.040	(0.224)	0.020	0.020
198	16.50	0.13	0.040	(0.223)	0.020	0.020
199	16.58	0.10	0.030	(0.222)	0.015	0.015
200	16.67	0.10	0.030	(0.221)	0.015	0.015
201	16.75	0.10	0.030	(0.220)	0.015	0.015
202	16.83	0.10	0.030	(0.218)	0.015	0.015
203	16.92	0.10	0.030	(0.217)	0.015	0.015
204	17.00	0.10	0.030	(0.216)	0.015	0.015
205	17.08	0.17	0.050	(0.215)	0.025	0.025
206	17.17	0.17	0.050	(0.214)	0.025	0.025
207	17.25	0.17	0.050	(0.213)	0.025	0.025
208	17.33	0.17	0.050	(0.212)	0.025	0.025
209	17.42	0.17	0.050	(0.211)	0.025	0.025
210	17.50	0.17	0.050	(0.210)	0.025	0.025
211	17.58	0.17	0.050	(0.209)	0.025	0.025
212	17.67	0.17	0.050	(0.208)	0.025	0.025
213	17.75	0.17	0.050	(0.207)	0.025	0.025
214	17.83	0.13	0.040	(0.206)	0.020	0.020
215	17.92	0.13	0.040	(0.205)	0.020	0.020
216	18.00	0.13	0.040	(0.204)	0.020	0.020
217	18.08	0.13	0.040	(0.203)	0.020	0.020
218	18.17	0.13	0.040	(0.202)	0.020	0.020
219	18.25	0.13	0.040	(0.201)	0.020	0.020
220	18.33	0.13	0.040	(0.200)	0.020	0.020
221	18.42	0.13	0.040	(0.199)	0.020	0.020
222	18.50	0.13	0.040	(0.198)	0.020	0.020
223	18.58	0.10	0.030	(0.197)	0.015	0.015
224	18.67	0.10	0.030	(0.196)	0.015	0.015
225	18.75	0.10	0.030	(0.195)	0.015	0.015
226	18.83	0.07	0.020	(0.194)	0.010	0.010
227	18.92	0.07	0.020	(0.193)	0.010	0.010
228	19.00	0.07	0.020	(0.192)	0.010	0.010
229	19.08	0.10	0.030	(0.191)	0.015	0.015
230	19.17	0.10	0.030	(0.190)	0.015	0.015
231	19.25	0.10	0.030	(0.189)	0.015	0.015
232	19.33	0.13	0.040	(0.188)	0.020	0.020
233	19.42	0.13	0.040	(0.188)	0.020	0.020
234	19.50	0.13	0.040	(0.187)	0.020	0.020
235	19.58	0.10	0.030	(0.186)	0.015	0.015

236	19.67	0.10	0.030	(0.185)	0.015	0.015
237	19.75	0.10	0.030	(0.184)	0.015	0.015
238	19.83	0.07	0.020	(0.183)	0.010	0.010
239	19.92	0.07	0.020	(0.183)	0.010	0.010
240	20.00	0.07	0.020	(0.182)	0.010	0.010
241	20.08	0.10	0.030	(0.181)	0.015	0.015
242	20.17	0.10	0.030	(0.180)	0.015	0.015
243	20.25	0.10	0.030	(0.179)	0.015	0.015
244	20.33	0.10	0.030	(0.179)	0.015	0.015
245	20.42	0.10	0.030	(0.178)	0.015	0.015
246	20.50	0.10	0.030	(0.177)	0.015	0.015
247	20.58	0.10	0.030	(0.176)	0.015	0.015
248	20.67	0.10	0.030	(0.176)	0.015	0.015
249	20.75	0.10	0.030	(0.175)	0.015	0.015
250	20.83	0.07	0.020	(0.174)	0.010	0.010
251	20.92	0.07	0.020	(0.173)	0.010	0.010
252	21.00	0.07	0.020	(0.173)	0.010	0.010
253	21.08	0.10	0.030	(0.172)	0.015	0.015
254	21.17	0.10	0.030	(0.171)	0.015	0.015
255	21.25	0.10	0.030	(0.171)	0.015	0.015
256	21.33	0.07	0.020	(0.170)	0.010	0.010
257	21.42	0.07	0.020	(0.169)	0.010	0.010
258	21.50	0.07	0.020	(0.169)	0.010	0.010
259	21.58	0.10	0.030	(0.168)	0.015	0.015
260	21.67	0.10	0.030	(0.168)	0.015	0.015
261	21.75	0.10	0.030	(0.167)	0.015	0.015
262	21.83	0.07	0.020	(0.166)	0.010	0.010
263	21.92	0.07	0.020	(0.166)	0.010	0.010
264	22.00	0.07	0.020	(0.165)	0.010	0.010
265	22.08	0.10	0.030	(0.165)	0.015	0.015
266	22.17	0.10	0.030	(0.164)	0.015	0.015
267	22.25	0.10	0.030	(0.164)	0.015	0.015
268	22.33	0.07	0.020	(0.163)	0.010	0.010
269	22.42	0.07	0.020	(0.163)	0.010	0.010
270	22.50	0.07	0.020	(0.162)	0.010	0.010
271	22.58	0.07	0.020	(0.162)	0.010	0.010
272	22.67	0.07	0.020	(0.161)	0.010	0.010
273	22.75	0.07	0.020	(0.161)	0.010	0.010
274	22.83	0.07	0.020	(0.160)	0.010	0.010
275	22.92	0.07	0.020	(0.160)	0.010	0.010
276	23.00	0.07	0.020	(0.160)	0.010	0.010
277	23.08	0.07	0.020	(0.159)	0.010	0.010
278	23.17	0.07	0.020	(0.159)	0.010	0.010
279	23.25	0.07	0.020	(0.159)	0.010	0.010
280	23.33	0.07	0.020	(0.158)	0.010	0.010
281	23.42	0.07	0.020	(0.158)	0.010	0.010
282	23.50	0.07	0.020	(0.158)	0.010	0.010
283	23.58	0.07	0.020	(0.157)	0.010	0.010
284	23.67	0.07	0.020	(0.157)	0.010	0.010
285	23.75	0.07	0.020	(0.157)	0.010	0.010
286	23.83	0.07	0.020	(0.157)	0.010	0.010
287	23.92	0.07	0.020	(0.157)	0.010	0.010
288	24.00	0.07	0.020	(0.157)	0.010	0.010

(Loss Rate Not Used)

Sum = 100.0 Sum = 14.9

Flood volume = Effective rainfall 1.24(In)
times area 47.1(Ac.)/[(In)/(Ft.)] = 4.9(Ac.Ft)

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Total soil loss =      1.24(In)
Total soil loss =     4.867(Ac.Ft)
Total rainfall =      2.48(In)
Flood volume =      211987.0 Cubic Feet
Total soil loss =      211987.0 Cubic Feet
-------------------------------------------------------------------
 Peak flow rate of this hydrograph =      8.008(CFS)
-------------------------------------------------------------------
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
                 R u n o f f     H y d r o g r a p h
-------------------------------------------------------------------
            Hydrograph in   5   Minute intervals ((CFS))

-------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-------------------------------------------------------------------
  0+ 5       0.0010      0.14  Q          |         |         |         |
  0+10       0.0035      0.37  VQ         |         |         |         |
  0+15       0.0064      0.42  VQ         |         |         |         |
  0+20       0.0099      0.52  V Q        |         |         |         |
  0+25       0.0144      0.64  V Q        |         |         |         |
  0+30       0.0191      0.68  V Q        |         |         |         |
  0+35       0.0239      0.69  V Q        |         |         |         |
  0+40       0.0287      0.70  V Q        |         |         |         |
  0+45       0.0336      0.71  V Q        |         |         |         |
  0+50       0.0389      0.78  V  Q       |         |         |         |
  0+55       0.0450      0.89  V  Q       |         |         |         |
  1+ 0       0.0513      0.92  V  Q       |         |         |         |
  1+ 5       0.0573      0.86  V  Q       |         |         |         |
  1+10       0.0625      0.75  V  Q       |         |         |         |
  1+15       0.0675      0.73  V Q        |         |         |         |
  1+20       0.0725      0.72  V Q        |         |         |         |
  1+25       0.0774      0.71  V Q        |         |         |         |
  1+30       0.0822      0.71  V Q        |         |         |         |
  1+35       0.0871      0.71  V Q        |         |         |         |
  1+40       0.0920      0.71  V Q        |         |         |         |
  1+45       0.0968      0.71  V Q        |         |         |         |
  1+50       0.1022      0.78  V  Q       |         |         |         |
  1+55       0.1083      0.89  V  Q       |         |         |         |
  2+ 0       0.1146      0.92  V  Q       |         |         |         |
  2+ 5       0.1210      0.93  V  Q       |         |         |         |
  2+10       0.1275      0.94  |V Q       |         |         |         |
  2+15       0.1340      0.94  |V Q       |         |         |         |
  2+20       0.1404      0.94  |V Q       |         |         |         |
  2+25       0.1469      0.94  |V Q       |         |         |         |
  2+30       0.1534      0.94  |V Q       |         |         |         |
  2+35       0.1604      1.01  |V  Q      |         |         |         |
  2+40       0.1681      1.12  |V  Q      |         |         |         |
  2+45       0.1761      1.15  |V  Q      |         |         |         |
  2+50       0.1841      1.17  |V  Q      |         |         |         |
  2+55       0.1922      1.17  |V  Q      |         |         |         |
  3+ 0       0.2003      1.18  |V  Q      |         |         |         |
  3+ 5       0.2084      1.18  |V  Q      |         |         |         |
  3+10       0.2165      1.18  |V  Q      |         |         |         |
  3+15       0.2246      1.18  |V  Q      |         |         |         |
  3+20       0.2327      1.18  |V  Q      |         |         |         |
```

```
3+25      0.2409     1.18  |V  Q     |         |         |         |
3+30      0.2490     1.18  | V Q     |         |         |         |
3+35      0.2571     1.18  | V Q     |         |         |         |
3+40      0.2652     1.18  | V Q     |         |         |         |
3+45      0.2733     1.18  | V Q     |         |         |         |
3+50      0.2819     1.25  | V Q     |         |         |         |
3+55      0.2913     1.36  | V  Q    |         |         |         |
4+ 0      0.3008     1.39  | V  Q    |         |         |         |
4+ 5      0.3105     1.40  | V  Q    |         |         |         |
4+10      0.3202     1.41  | V  Q    |         |         |         |
4+15      0.3299     1.41  | V  Q    |         |         |         |
4+20      0.3401     1.48  | V  Q    |         |         |         |
4+25      0.3511     1.60  | V   Q   |         |         |         |
4+30      0.3623     1.62  | V   Q   |         |         |         |
4+35      0.3736     1.64  |  V  Q   |         |         |         |
4+40      0.3849     1.64  |  V  Q   |         |         |         |
4+45      0.3962     1.65  |  V  Q   |         |         |         |
4+50      0.4081     1.72  |  V  Q   |         |         |         |
4+55      0.4207     1.83  |  V   Q  |         |         |         |
5+ 0      0.4335     1.86  |  V   Q  |         |         |         |
5+ 5      0.4454     1.73  |  V  Q   |         |         |         |
5+10      0.4559     1.51  |  V  Q   |         |         |         |
5+15      0.4659     1.46  |  V Q    |         |         |         |
5+20      0.4763     1.51  |  V  Q   |         |         |         |
5+25      0.4874     1.61  |   V Q   |         |         |         |
5+30      0.4986     1.62  |   V Q   |         |         |         |
5+35      0.5103     1.71  |   V Q   |         |         |         |
5+40      0.5229     1.83  |   V  Q  |         |         |         |
5+45      0.5357     1.86  |   V  Q  |         |         |         |
5+50      0.5486     1.87  |   V  Q  |         |         |         |
5+55      0.5615     1.88  |   V  Q  |         |         |         |
6+ 0      0.5745     1.88  |   V  Q  |         |         |         |
6+ 5      0.5880     1.95  |   V  Q  |         |         |         |
6+10      0.6022     2.07  |   V   Q |         |         |         |
6+15      0.6166     2.10  |    V  Q |         |         |         |
6+20      0.6312     2.11  |    V  Q |         |         |         |
6+25      0.6457     2.11  |    V  Q |         |         |         |
6+30      0.6603     2.12  |    V  Q |         |         |         |
6+35      0.6754     2.19  |    V  Q |         |         |         |
6+40      0.6913     2.30  |    V   Q|         |         |         |
6+45      0.7073     2.33  |    V   Q|         |         |         |
6+50      0.7234     2.34  |    V   Q|         |         |         |
6+55      0.7396     2.35  |     V  Q|         |         |         |
7+ 0      0.7559     2.36  |     V  Q|         |         |         |
7+ 5      0.7721     2.36  |     V  Q|         |         |         |
7+10      0.7883     2.36  |     V  Q|         |         |         |
7+15      0.8045     2.36  |     V  Q|         |         |         |
7+20      0.8212     2.42  |     V  Q|         |         |         |
7+25      0.8387     2.54  |     V   Q         |         |         |
7+30      0.8564     2.57  |      V  Q         |         |         |
7+35      0.8746     2.65  |      V  Q         |         |         |
7+40      0.8937     2.77  |      V  |Q        |         |         |
7+45      0.9130     2.80  |      V  |Q        |         |         |
7+50      0.9328     2.88  |      V  |Q        |         |         |
7+55      0.9535     3.00  |      V  | Q       |         |         |
8+ 0      0.9745     3.04  |       V | Q       |         |         |
8+ 5      0.9964     3.19  |       V | Q       |         |         |
```

8+10	1.0200	3.42	
8+15	1.0440	3.48	
8+20	1.0682	3.51	
8+25	1.0924	3.52	
8+30	1.1168	3.53	
8+35	1.1416	3.60	
8+40	1.1672	3.72	
8+45	1.1929	3.74	
8+50	1.2193	3.83	
8+55	1.2465	3.95	
9+ 0	1.2739	3.98	
9+ 5	1.3023	4.13	
9+10	1.3324	4.36	
9+15	1.3629	4.43	
9+20	1.3940	4.52	
9+25	1.4260	4.65	
9+30	1.4583	4.69	
9+35	1.4911	4.77	
9+40	1.5248	4.89	
9+45	1.5587	4.92	
9+50	1.5932	5.00	
9+55	1.6285	5.12	
10+ 0	1.6640	5.16	
10+ 5	1.6962	4.68	
10+10	1.7231	3.90	
10+15	1.7486	3.70	
10+20	1.7735	3.62	
10+25	1.7981	3.57	
10+30	1.8224	3.53	
10+35	1.8491	3.88	
10+40	1.8797	4.45	
10+45	1.9114	4.59	
10+50	1.9434	4.65	
10+55	1.9757	4.69	
11+ 0	2.0081	4.71	
11+ 5	2.0401	4.64	
11+10	2.0713	4.53	
11+15	2.1022	4.50	
11+20	2.1331	4.49	
11+25	2.1640	4.48	
11+30	2.1948	4.48	
11+35	2.2247	4.34	
11+40	2.2530	4.11	
11+45	2.2809	4.05	
11+50	2.3091	4.10	
11+55	2.3380	4.20	
12+ 0	2.3671	4.22	
12+ 5	2.3995	4.71	
12+10	2.4375	5.51	
12+15	2.4769	5.72	
12+20	2.5173	5.88	
12+25	2.5589	6.04	
12+30	2.6009	6.10	
12+35	2.6440	6.25	
12+40	2.6886	6.48	
12+45	2.7337	6.55	
12+50	2.7794	6.64	

```
12+55      2.8261     6.77  |         |         |  V   Q  |         |
13+ 0      2.8729     6.81  |         |         |  V   Q  |         |
13+ 5      2.9223     7.17  |         |         |   V   Q |         |
13+10      2.9756     7.74  |         |         |   V     Q         |
13+15      3.0299     7.89  |         |         |   V     |Q        |
13+20      3.0846     7.95  |         |         |    V    |Q        |
13+25      3.1396     7.98  |         |         |    V    |Q        |
13+30      3.1948     8.01  |         |         |     V   | Q       |
13+35      3.2447     7.24  |         |         |     V Q |         |
13+40      3.2860     6.00  |         |         |   Q  V  |         |
13+45      3.3252     5.69  |         |         | Q    V  |         |
13+50      3.3634     5.55  |         |         | Q    V  |         |
13+55      3.4010     5.47  |         |         |Q     V  |         |
14+ 0      3.4384     5.42  |         |         |Q      V |         |
14+ 5      3.4776     5.70  |         |         | Q     V |         |
14+10      3.5199     6.15  |         |         |   Q   V |         |
14+15      3.5630     6.26  |         |         |    Q   V|         |
14+20      3.6060     6.24  |         |         |   Q    V|         |
14+25      3.6484     6.16  |         |         |   Q    V|         |
14+30      3.6908     6.15  |         |         |   Q     V         |
14+35      3.7330     6.14  |         |         |   Q     V         |
14+40      3.7753     6.13  |         |         |   Q     |V        |
14+45      3.8174     6.12  |         |         |   Q     |V        |
14+50      3.8591     6.05  |         |         |   Q     |V        |
14+55      3.9001     5.94  |         |         |  Q      | V       |
15+ 0      3.9408     5.91  |         |         |  Q      | V       |
15+ 5      3.9809     5.83  |         |         |  Q      | V       |
15+10      4.0203     5.71  |         |         | Q       |  V      |
15+15      4.0594     5.68  |         |         | Q       |  V      |
15+20      4.0979     5.60  |         |         | Q       |  V      |
15+25      4.1356     5.48  |         |         |Q        |  V      |
15+30      4.1731     5.44  |         |         |Q        |   V     |
15+35      4.2086     5.15  |         |        Q        |   V     |
15+40      4.2409     4.69  |         |      Q |        |   V     |
15+45      4.2724     4.57  |         |      Q |        |    V    |
15+50      4.3035     4.52  |         |      Q |        |    V    |
15+55      4.3345     4.50  |         |     Q  |        |    V    |
16+ 0      4.3653     4.48  |         |     Q  |        |    V    |
16+ 5      4.3889     3.43  |         | Q      |        |     V   |
16+10      4.4009     1.74  |     Q   |        |        |     V   |
16+15      4.4099     1.31  |    Q    |        |        |     V   |
16+20      4.4176     1.12  |   Q     |        |        |     V   |
16+25      4.4246     1.02  |   Q     |        |        |     V   |
16+30      4.4311     0.94  |  Q      |        |        |     V   |
16+35      4.4371     0.87  |  Q      |        |        |     V   |
16+40      4.4424     0.76  |  Q      |        |        |     V   |
16+45      4.4474     0.73  | Q       |        |        |     V   |
16+50      4.4523     0.72  | Q       |        |        |     V   |
16+55      4.4573     0.71  | Q       |        |        |     V   |
17+ 0      4.4621     0.71  | Q       |        |        |     V   |
17+ 5      4.4679     0.85  |  Q      |        |        |     V   |
17+10      4.4753     1.07  |   Q     |        |        |     V   |
17+15      4.4831     1.13  |   Q     |        |        |     V   |
17+20      4.4910     1.15  |   Q     |        |        |     V   |
17+25      4.4991     1.17  |   Q     |        |        |     V   |
17+30      4.5072     1.18  |   Q     |        |        |      V  |
17+35      4.5153     1.18  |   Q     |        |        |      V  |
```

17+40	4.5234	1.18	Q			V
17+45	4.5315	1.18	Q			V
17+50	4.5392	1.11	Q			V
17+55	4.5460	1.00	Q			V
18+ 0	4.5527	0.97	Q			V
18+ 5	4.5592	0.95	Q			V
18+10	4.5658	0.95	Q			V
18+15	4.5723	0.94	Q			V
18+20	4.5787	0.94	Q			V
18+25	4.5852	0.94	Q			V
18+30	4.5917	0.94	Q			V
18+35	4.5977	0.87	Q			V
18+40	4.6030	0.76	Q			V
18+45	4.6080	0.73	Q			V
18+50	4.6125	0.65	Q			V
18+55	4.6161	0.53	Q			V
19+ 0	4.6195	0.50	Q			V
19+ 5	4.6233	0.55	Q			V
19+10	4.6279	0.66	Q			V
19+15	4.6326	0.68	Q			V
19+20	4.6378	0.76	Q			V
19+25	4.6439	0.88	Q			V
19+30	4.6502	0.92	Q			V
19+35	4.6562	0.86	Q			V
19+40	4.6614	0.75	Q			V
19+45	4.6664	0.73	Q			V
19+50	4.6709	0.65	Q			V
19+55	4.6745	0.53	Q			V
20+ 0	4.6779	0.50	Q			V
20+ 5	4.6817	0.55	Q			V
20+10	4.6863	0.66	Q			V
20+15	4.6910	0.68	Q			V
20+20	4.6957	0.69	Q			V
20+25	4.7006	0.70	Q			V
20+30	4.7054	0.71	Q			V
20+35	4.7103	0.71	Q			V
20+40	4.7152	0.71	Q			V
20+45	4.7200	0.71	Q			V
20+50	4.7244	0.64	Q			V
20+55	4.7280	0.52	Q			V
21+ 0	4.7315	0.50	Q			V
21+ 5	4.7353	0.55	Q			V
21+10	4.7398	0.66	Q			V
21+15	4.7445	0.68	Q			V
21+20	4.7488	0.63	Q			V
21+25	4.7524	0.52	Q			V
21+30	4.7558	0.50	Q			V
21+35	4.7596	0.55	Q			V
21+40	4.7641	0.66	Q			V
21+45	4.7688	0.68	Q			V
21+50	4.7731	0.63	Q			V
21+55	4.7767	0.52	Q			V
22+ 0	4.7801	0.50	Q			V
22+ 5	4.7839	0.55	Q			V
22+10	4.7885	0.66	Q			V
22+15	4.7932	0.68	Q			V
22+20	4.7975	0.63	Q			V

```
  22+25       4.8010      0.52  | Q        |          |          |          V|
  22+30       4.8045      0.50  |Q         |          |          |          V|
  22+35       4.8078      0.48  |Q         |          |          |          V|
  22+40       4.8111      0.48  |Q         |          |          |          V|
  22+45       4.8143      0.47  |Q         |          |          |          V|
  22+50       4.8175      0.47  |Q         |          |          |          V|
  22+55       4.8208      0.47  |Q         |          |          |          V|
  23+ 0       4.8240      0.47  |Q         |          |          |          V|
  23+ 5       4.8273      0.47  |Q         |          |          |          V|
  23+10       4.8305      0.47  |Q         |          |          |          V|
  23+15       4.8338      0.47  |Q         |          |          |          V|
  23+20       4.8370      0.47  |Q         |          |          |          V|
  23+25       4.8403      0.47  |Q         |          |          |          V|
  23+30       4.8435      0.47  |Q         |          |          |          V|
  23+35       4.8467      0.47  |Q         |          |          |          V|
  23+40       4.8500      0.47  |Q         |          |          |          V|
  23+45       4.8532      0.47  |Q         |          |          |          V|
  23+50       4.8565      0.47  |Q         |          |          |          V|
  23+55       4.8597      0.47  |Q         |          |          |          V|
  24+ 0       4.8630      0.47  |Q         |          |          |          V|
  24+ 5       4.8653      0.33  |Q         |          |          |          V|
  24+10       4.8660      0.11  Q          |          |          |          V|
  24+15       4.8663      0.05  Q          |          |          |          V|
  24+20       4.8665      0.02  Q          |          |          |          V|
  24+25       4.8666      0.01  Q          |          |          |          V|
-------------------------------------------------------------------------
```

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
            Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                        Study date: 04/25/14

-------------------------------------------------------------------
```

TTM 36557
2-Year 24-Hour Flood Hydrograph Routing Area "A"
Developed Condition

```
-------------------------------------------------------------------
Program License Serial Number 6194

-------------------------------------------------------------------
******************** HYDROGRAPH INFORMATION *********************

           From study/file name: 32786ADev242.rte
****************************HYDROGRAPH DATA****************************
           Number of intervals =   293
           Time interval =    5.0 (Min.)
           Maximum/Peak flow rate =        8.008 (CFS)
           Total volume =       4.867 (Ac.Ft)
     Status of hydrographs being held in storage
                Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
     Peak (CFS)      0.000     0.000     0.000     0.000     0.000
     Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*********************************************************************


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        1.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
-------------------------------------------------------------------
Total number of inflow hydrograph intervals = 293
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-------------------------------------------------------------------
-------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
-------------------------------------------------------------------
-------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)     (Ac.Ft)
-------------------------------------------------------------------
    0.000      0.000      0.000      0.000        0.000
    0.330      0.020      0.095      0.020        0.020
    0.660      0.060      0.143      0.060        0.060
```

1.000	0.130	0.180	0.129	0.131
3.660	0.930	0.350	0.929	0.931
4.000	1.060	0.370	1.059	1.061
5.330	1.570	0.430	1.569	1.571
6.330	1.990	0.900	1.987	1.993
9.000	3.250	2.330	3.242	3.258
9.500	3.510	2.500	3.501	3.519
10.000	3.760	3.440	3.748	3.772
10.500	4.040	4.430	4.025	4.055
10.750	4.180	4.860	4.163	4.197
11.000	4.320	5.220	4.302	4.338
11.330	4.510	5.640	4.491	4.529
11.660	4.710	18.000	4.648	4.772
12.330	5.080	93.890	4.757	5.403

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	2.0	4.00	6.01	8.01	Depth (Ft.)
0.083	0.14	0.00	0.000	O	|	|	|	|	0.01
0.167	0.37	0.01	0.002	OI	|	|	|	|	0.04
0.250	0.42	0.02	0.005	OI	|	|	|	|	0.08
0.333	0.52	0.04	0.008	O I	|	|	|	|	0.13
0.417	0.64	0.05	0.011	O I	|	|	|	|	0.19
0.500	0.68	0.07	0.016	O I	|	|	|	|	0.26
0.583	0.69	0.09	0.020	O I	|	|	|	|	0.33
0.667	0.70	0.10	0.024	O I	|	|	|	|	0.36
0.750	0.71	0.10	0.028	O I	|	|	|	|	0.40
0.833	0.78	0.11	0.032	O I	|	|	|	|	0.43
0.917	0.89	0.12	0.037	O I	|	|	|	|	0.47
1.000	0.92	0.12	0.043	O I	|	|	|	|	0.52
1.083	0.86	0.13	0.048	O I	|	|	|	|	0.56
1.167	0.75	0.13	0.053	O I	|	|	|	|	0.60
1.250	0.73	0.14	0.057	O I	|	|	|	|	0.63
1.333	0.72	0.14	0.061	O I	|	|	|	|	0.66
1.417	0.71	0.15	0.065	O I	|	|	|	|	0.68
1.500	0.71	0.15	0.069	O I	|	|	|	|	0.70
1.583	0.71	0.15	0.073	O I	|	|	|	|	0.72
1.667	0.71	0.15	0.076	O I	|	|	|	|	0.74
1.750	0.71	0.15	0.080	O I	|	|	|	|	0.76
1.833	0.78	0.16	0.084	O I	|	|	|	|	0.78
1.917	0.89	0.16	0.089	O I	|	|	|	|	0.80
2.000	0.92	0.16	0.094	O I	|	|	|	|	0.83
2.083	0.93	0.16	0.099	O I	|	|	|	|	0.85
2.167	0.94	0.17	0.105	O I	|	|	|	|	0.88
2.250	0.94	0.17	0.110	O I	|	|	|	|	0.90
2.333	0.94	0.17	0.115	O I	|	|	|	|	0.93
2.417	0.94	0.17	0.120	O I	|	|	|	|	0.95
2.500	0.94	0.18	0.126	O I	|	|	|	|	0.98
2.583	1.01	0.18	0.131	O I	|	|	|	|	1.00
2.667	1.12	0.18	0.137	O I	|	|	|	|	1.02

2.750	1.15	0.18	0.144	O	I	|	|	|	|	1.05
2.833	1.17	0.18	0.151	O	I	|	|	|	|	1.07
2.917	1.17	0.19	0.157	O	I	|	|	|	|	1.09
3.000	1.18	0.19	0.164	O	I	|	|	|	|	1.11
3.083	1.18	0.19	0.171	O	I	|	|	|	|	1.14
3.167	1.18	0.19	0.178	O	I	|	|	|	|	1.16
3.250	1.18	0.19	0.185	O	I	|	|	|	|	1.18
3.333	1.18	0.19	0.191	O	I	|	|	|	|	1.20
3.417	1.18	0.19	0.198	O	I	|	|	|	|	1.23
3.500	1.18	0.20	0.205	O	I	|	|	|	|	1.25
3.583	1.18	0.20	0.212	O	I	|	|	|	|	1.27
3.667	1.18	0.20	0.218	O	I	|	|	|	|	1.29
3.750	1.18	0.20	0.225	O	I	|	|	|	|	1.32
3.833	1.25	0.20	0.232	O	I	|	|	|	|	1.34
3.917	1.36	0.20	0.240	O	I	|	|	|	|	1.36
4.000	1.39	0.21	0.248	O	I	|	|	|	|	1.39
4.083	1.40	0.21	0.256	O	I	|	|	|	|	1.42
4.167	1.41	0.21	0.264	O	I	|	|	|	|	1.45
4.250	1.41	0.21	0.273	O	I	|	|	|	|	1.47
4.333	1.48	0.21	0.281	O	I	|	|	|	|	1.50
4.417	1.60	0.21	0.290	O	I	|	|	|	|	1.53
4.500	1.62	0.22	0.300	O	I	|	|	|	|	1.56
4.583	1.64	0.22	0.310	O	I	|	|	|	|	1.60
4.667	1.64	0.22	0.319	O	I	|	|	|	|	1.63
4.750	1.65	0.22	0.329	O	I	|	|	|	|	1.66
4.833	1.72	0.22	0.339	O	I	|	|	|	|	1.70
4.917	1.83	0.23	0.350	O	I	|	|	|	|	1.73
5.000	1.86	0.23	0.361	O	I	|	|	|	|	1.77
5.083	1.73	0.23	0.372	O	I	|	|	|	|	1.80
5.167	1.51	0.23	0.381	O	I	|	|	|	|	1.84
5.250	1.46	0.24	0.390	O	I	|	|	|	|	1.86
5.333	1.51	0.24	0.399	O	I	|	|	|	|	1.89
5.417	1.61	0.24	0.408	O	I	|	|	|	|	1.92
5.500	1.62	0.24	0.417	O	I	|	|	|	|	1.95
5.583	1.71	0.24	0.427	O	I	|	|	|	|	1.99
5.667	1.83	0.25	0.437	O	I	|	|	|	|	2.02
5.750	1.86	0.25	0.448	O	I	|	|	|	|	2.06
5.833	1.87	0.25	0.460	O	I	|	|	|	|	2.10
5.917	1.88	0.25	0.471	|O	I	|	|	|	|	2.13
6.000	1.88	0.25	0.482	|O	I	|	|	|	|	2.17
6.083	1.95	0.26	0.493	|O	I	|	|	|	|	2.21
6.167	2.07	0.26	0.505	|O	I	|	|	|	|	2.25
6.250	2.10	0.26	0.518	|O	I	|	|	|	|	2.29
6.333	2.11	0.27	0.531	|O	I	|	|	|	|	2.33
6.417	2.11	0.27	0.543	|O	I	|	|	|	|	2.37
6.500	2.12	0.27	0.556	|O	I	|	|	|	|	2.42
6.583	2.19	0.27	0.569	|O	I	|	|	|	|	2.46
6.667	2.30	0.28	0.583	|O	|	I	|	|	|	2.51
6.750	2.33	0.28	0.597	|O	|	I	|	|	|	2.55
6.833	2.34	0.28	0.611	|O	|	I	|	|	|	2.60
6.917	2.35	0.29	0.625	|O	|	I	|	|	|	2.65
7.000	2.36	0.29	0.639	|O	|	I	|	|	|	2.69
7.083	2.36	0.29	0.654	|O	|	I	|	|	|	2.74
7.167	2.36	0.29	0.668	|O	|	I	|	|	|	2.79

7.250	2.36	0.30	0.682	O	I				2.84
7.333	2.42	0.30	0.696	O	I				2.88
7.417	2.54	0.30	0.711	O	I				2.93
7.500	2.57	0.31	0.727	O	I				2.98
7.583	2.65	0.31	0.743	O	I				3.04
7.667	2.77	0.31	0.759	O	I				3.09
7.750	2.80	0.32	0.776	O	I				3.15
7.833	2.88	0.32	0.794	O	I				3.21
7.917	3.00	0.32	0.812	O	I				3.27
8.000	3.04	0.33	0.830	O	I				3.33
8.083	3.19	0.33	0.849	O	I				3.39
8.167	3.42	0.34	0.870	O	I				3.46
8.250	3.48	0.34	0.891	O	I				3.53
8.333	3.51	0.35	0.913	O	I				3.60
8.417	3.52	0.35	0.935	O	I				3.67
8.500	3.53	0.35	0.957	O	I				3.73
8.583	3.60	0.36	0.979	O	I				3.79
8.667	3.72	0.36	1.001	O	I				3.85
8.750	3.74	0.36	1.025	O	I				3.91
8.833	3.83	0.37	1.048	O	I				3.97
8.917	3.95	0.37	1.072	O	I				4.03
9.000	3.98	0.37	1.097	O	I				4.10
9.083	4.13	0.38	1.122	O	I				4.16
9.167	4.36	0.38	1.149	O	I				4.23
9.250	4.43	0.38	1.177	O	I				4.30
9.333	4.52	0.39	1.205	O	I				4.38
9.417	4.65	0.39	1.234	O	I				4.45
9.500	4.69	0.39	1.263	O	I				4.53
9.583	4.77	0.40	1.293	O	I				4.61
9.667	4.89	0.40	1.324	O	I				4.69
9.750	4.92	0.40	1.355	O	I				4.77
9.833	5.00	0.41	1.386	O	I				4.85
9.917	5.12	0.41	1.418	O	I				4.93
10.000	5.16	0.42	1.451	O	I				5.02
10.083	4.68	0.42	1.482	O	I				5.10
10.167	3.90	0.42	1.508	O	I				5.17
10.250	3.70	0.43	1.532	O	I				5.23
10.333	3.62	0.43	1.554	O	I				5.29
10.417	3.57	0.44	1.576	O	I				5.34
10.500	3.53	0.46	1.597	O	I				5.39
10.583	3.88	0.49	1.619	O	I				5.45
10.667	4.45	0.51	1.644	O	I				5.51
10.750	4.59	0.54	1.672	O	I				5.57
10.833	4.65	0.58	1.700	O	I				5.64
10.917	4.69	0.61	1.728	O	I				5.71
11.000	4.71	0.64	1.756	O	I				5.77
11.083	4.64	0.67	1.784	O	I				5.84
11.167	4.53	0.70	1.811	O	I				5.90
11.250	4.50	0.73	1.837	O	I				5.97
11.333	4.49	0.76	1.863	O	I				6.03
11.417	4.48	0.79	1.888	O	I				6.09
11.500	4.48	0.81	1.913	O	I				6.15
11.583	4.34	0.84	1.938	O	I				6.21
11.667	4.11	0.87	1.961	O	I				6.26

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11.750   4.05   0.89   1.983  |  O    |       I       |       |   6.31
11.833   4.10   0.92   2.005  |  O    |       I       |       |   6.36
11.917   4.20   0.94   2.027  |  O    |       I       |       |   6.41
12.000   4.22   0.97   2.050  |  O    |       I       |       |   6.46
12.083   4.71   1.00   2.074  |  O    |       | I     |       |   6.51
12.167   5.51   1.03   2.102  |   O   |       |     I |       |   6.57
12.250   5.72   1.06   2.133  |   O   |       |     I |       |   6.63
12.333   5.88   1.10   2.166  |   O   |       |      I|       |   6.70
12.417   6.04   1.14   2.199  |   O   |       |       I       |   6.77
12.500   6.10   1.18   2.233  |   O   |       |       I       |   6.85
12.583   6.25   1.21   2.267  |   O   |       |       I       |   6.92
12.667   6.48   1.25   2.303  |    O  |       |       |I      |   6.99
12.750   6.55   1.30   2.339  |    O  |       |       | I     |   7.07
12.833   6.64   1.34   2.375  |    O  |       |       | I     |   7.15
12.917   6.77   1.38   2.412  |    O  |       |       |  I    |   7.22
13.000   6.81   1.42   2.449  |    O  |       |       |  I    |   7.30
13.083   7.17   1.46   2.487  |    O  |       |       |   I   |   7.38
13.167   7.74   1.51   2.528  |     O |       |       |     I |   7.47
13.250   7.89   1.56   2.572  |     O |       |       |      I|   7.56
13.333   7.95   1.61   2.615  |     O |       |       |      I|   7.65
13.417   7.98   1.66   2.659  |     O |       |       |      I|   7.75
13.500   8.01   1.71   2.702  |     O |       |       |       I   7.84
13.583   7.24   1.75   2.743  |      O|       |       |   I   |   7.93
13.667   6.00   1.79   2.776  |      O|       |      I|       |   8.00
13.750   5.69   1.82   2.804  |      O|       |     I |       |   8.05
13.833   5.55   1.85   2.830  |      O|       |     I |       |   8.11
13.917   5.47   1.88   2.855  |      O|       |    I  |       |   8.16
14.000   5.42   1.91   2.880  |      O|       |    I  |       |   8.22
14.083   5.70   1.94   2.905  |      O|       |     I |       |   8.27
14.167   6.15   1.97   2.932  |      O|       |       I       |   8.33
14.250   6.26   2.00   2.961  |      O|       |       |I      |   8.39
14.333   6.24   2.04   2.990  |       O       |       I       |   8.45
14.417   6.16   2.07   3.019  |       O       |       I       |   8.51
14.500   6.15   2.10   3.047  |       O       |       I       |   8.57
14.583   6.14   2.13   3.074  |       O       |       I       |   8.63
14.667   6.13   2.16   3.102  |       O       |       I       |   8.69
14.750   6.12   2.19   3.129  |       O       |       I       |   8.74
14.833   6.05   2.22   3.156  |       O       |       I       |   8.80
14.917   5.94   2.25   3.182  |       |O      |      I|       |   8.86
15.000   5.91   2.28   3.207  |       |O      |      I|       |   8.91
15.083   5.83   2.31   3.232  |       |O      |      I|       |   8.96
15.167   5.71   2.33   3.255  |       |O      |     I |       |   9.01
15.250   5.68   2.35   3.278  |       |O      |     I |       |   9.05
15.333   5.60   2.36   3.301  |       |O      |     I |       |   9.10
15.417   5.48   2.38   3.323  |       |O      |    I  |       |   9.14
15.500   5.44   2.39   3.344  |       |O      |    I  |       |   9.18
15.583   5.15   2.40   3.364  |       |O      |   I   |       |   9.22
15.667   4.69   2.42   3.381  |       |O      | I     |       |   9.25
15.750   4.57   2.43   3.397  |       |O      | I     |       |   9.28
15.833   4.52   2.44   3.411  |       |O      | I     |       |   9.31
15.917   4.50   2.44   3.425  |       |O      |I      |       |   9.34
16.000   4.48   2.45   3.439  |       |O      |I      |       |   9.36
16.083   3.43   2.46   3.450  |       |O   I  |       |       |   9.38
16.167   1.74   2.46   3.451  |     I |O      |       |       |   9.39
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16.250	1.31	2.46	3.444	I	O			9.37
16.333	1.12	2.45	3.436	I	O			9.36
16.417	1.02	2.45	3.426	I	O			9.34
16.500	0.94	2.44	3.416	I	O			9.32
16.583	0.87	2.43	3.405	I	O			9.30
16.667	0.76	2.42	3.394	I	O			9.28
16.750	0.73	2.42	3.383	I	O			9.26
16.833	0.72	2.41	3.371	I	O			9.23
16.917	0.71	2.40	3.360	I	O			9.21
17.000	0.71	2.39	3.348	I	O			9.19
17.083	0.85	2.39	3.337	I	O			9.17
17.167	1.07	2.38	3.327	I	O			9.15
17.250	1.13	2.37	3.318	I	O			9.13
17.333	1.15	2.37	3.310	I	O			9.11
17.417	1.17	2.36	3.301	I	O			9.10
17.500	1.18	2.36	3.293	I	O			9.08
17.583	1.18	2.35	3.285	I	O			9.07
17.667	1.18	2.35	3.277	I	O			9.05
17.750	1.18	2.34	3.269	I	O			9.04
17.833	1.11	2.34	3.261	I	O			9.02
17.917	1.00	2.33	3.252	I	O			9.00
18.000	0.97	2.32	3.243	I	O			8.98
18.083	0.95	2.31	3.233	I	O			8.96
18.167	0.95	2.30	3.224	I	O			8.94
18.250	0.94	2.29	3.215	I	O			8.93
18.333	0.94	2.28	3.205	I	O			8.91
18.417	0.94	2.27	3.196	I	O			8.89
18.500	0.94	2.26	3.187	I	O			8.87
18.583	0.87	2.25	3.178	I	O			8.85
18.667	0.76	2.24	3.168	I	O			8.83
18.750	0.73	2.23	3.158	I	O			8.80
18.833	0.65	2.21	3.147	I	O			8.78
18.917	0.53	2.20	3.136	I	O			8.76
19.000	0.50	2.19	3.125	I	O			8.73
19.083	0.55	2.17	3.113	I	O			8.71
19.167	0.66	2.16	3.102	I	O			8.69
19.250	0.68	2.15	3.092	I	O			8.67
19.333	0.76	2.14	3.082	I	O			8.64
19.417	0.88	2.13	3.073	I	O			8.63
19.500	0.92	2.12	3.065	I	O			8.61
19.583	0.86	2.11	3.056	I	O			8.59
19.667	0.75	2.10	3.048	I	O			8.57
19.750	0.73	2.09	3.038	I	O			8.55
19.833	0.65	2.08	3.029	I	O			8.53
19.917	0.53	2.07	3.018	I	O			8.51
20.000	0.50	2.06	3.008	I	O			8.49
20.083	0.55	2.04	2.997	I	O			8.46
20.167	0.66	2.03	2.987	I	O			8.44
20.250	0.68	2.02	2.978	I	O			8.42
20.333	0.69	2.01	2.969	I	O			8.40
20.417	0.70	2.00	2.960	I	O			8.39
20.500	0.71	1.99	2.951	I	O			8.37
20.583	0.71	1.98	2.942	I	O			8.35
20.667	0.71	1.97	2.933	I	O			8.33

20.750	0.71	1.96	2.925	I	O			8.31
20.833	0.64	1.95	2.916	I	O			8.29
20.917	0.52	1.94	2.907	I	O			8.27
21.000	0.50	1.93	2.897	I	O			8.25
21.083	0.55	1.92	2.887	I	O			8.23
21.167	0.66	1.91	2.878	I	O			8.21
21.250	0.68	1.90	2.870	I	O			8.19
21.333	0.63	1.89	2.861	I	O			8.18
21.417	0.52	1.88	2.852	I	O			8.16
21.500	0.50	1.87	2.843	I	O			8.14
21.583	0.55	1.86	2.833	I	O			8.12
21.667	0.66	1.85	2.825	I	O			8.10
21.750	0.68	1.84	2.817	I	O			8.08
21.833	0.63	1.83	2.809	I	O			8.06
21.917	0.52	1.82	2.800	I	O			8.05
22.000	0.50	1.81	2.791	I	O			8.03
22.083	0.55	1.80	2.782	I	O			8.01
22.167	0.66	1.79	2.774	I	O			7.99
22.250	0.68	1.78	2.766	I	O			7.97
22.333	0.63	1.77	2.759	I	O			7.96
22.417	0.52	1.76	2.750	I	O			7.94
22.500	0.50	1.75	2.742	I	O			7.92
22.583	0.48	1.74	2.733	I	O			7.90
22.667	0.48	1.73	2.724	I	O			7.89
22.750	0.47	1.72	2.716	I	O			7.87
22.833	0.47	1.71	2.707	I	O			7.85
22.917	0.47	1.70	2.699	I	O			7.83
23.000	0.47	1.69	2.690	I	O			7.81
23.083	0.47	1.69	2.682	I	O			7.80
23.167	0.47	1.68	2.673	I	O			7.78
23.250	0.47	1.67	2.665	I	O			7.76
23.333	0.47	1.66	2.657	I	O			7.74
23.417	0.47	1.65	2.649	I	O			7.73
23.500	0.47	1.64	2.641	I	O			7.71
23.583	0.47	1.63	2.633	I	O			7.69
23.667	0.47	1.62	2.625	I	O			7.68
23.750	0.47	1.61	2.617	I	O			7.66
23.833	0.47	1.60	2.609	I	O			7.64
23.917	0.47	1.59	2.601	I	O			7.63
24.000	0.47	1.59	2.594	I	O			7.61
24.083	0.33	1.58	2.586	I	O			7.59
24.167	0.11	1.57	2.576	I	O			7.57
24.250	0.05	1.55	2.566	I	O			7.55
24.333	0.02	1.54	2.556	I	O			7.53
24.417	0.01	1.53	2.545	I	O			7.51
24.500	0.00	1.52	2.535	I	O			7.48
24.583	0.00	1.51	2.524	I	O			7.46
24.667	0.00	1.49	2.514	I	O			7.44
24.750	0.00	1.48	2.504	I	O			7.42
24.833	0.00	1.47	2.493	I	O			7.40
24.917	0.00	1.46	2.483	I	O			7.38
25.000	0.00	1.45	2.473	I	O			7.35
25.083	0.00	1.44	2.463	I	O			7.33
25.167	0.00	1.43	2.454	I	O			7.31

25.250	0.00	1.42	2.444	I	O				7.29
25.333	0.00	1.40	2.434	I	O				7.27
25.417	0.00	1.39	2.424	I	O				7.25
25.500	0.00	1.38	2.415	I	O				7.23
25.583	0.00	1.37	2.405	I	O				7.21
25.667	0.00	1.36	2.396	I	O				7.19
25.750	0.00	1.35	2.387	I	O				7.17
25.833	0.00	1.34	2.377	I	O				7.15
25.917	0.00	1.33	2.368	I	O				7.13
26.000	0.00	1.32	2.359	I	O				7.11
26.083	0.00	1.31	2.350	I	O				7.09
26.167	0.00	1.30	2.341	I	O				7.07
26.250	0.00	1.29	2.332	I	O				7.06
26.333	0.00	1.28	2.323	I	O				7.04
26.417	0.00	1.27	2.315	I	O				7.02
26.500	0.00	1.26	2.306	I	O				7.00
26.583	0.00	1.25	2.297	I	O				6.98
26.667	0.00	1.24	2.289	I	O				6.96
26.750	0.00	1.23	2.280	I	O				6.94
26.833	0.00	1.22	2.272	I	O				6.93
26.917	0.00	1.21	2.263	I	O				6.91
27.000	0.00	1.20	2.255	I	O				6.89
27.083	0.00	1.19	2.247	I	O				6.87
27.167	0.00	1.18	2.239	I	O				6.86
27.250	0.00	1.17	2.231	I	O				6.84
27.333	0.00	1.16	2.222	I	O				6.82
27.417	0.00	1.15	2.214	I	O				6.81
27.500	0.00	1.15	2.207	I	O				6.79
27.583	0.00	1.14	2.199	I	O				6.77
27.667	0.00	1.13	2.191	I	O				6.76
27.750	0.00	1.12	2.183	I	O				6.74
27.833	0.00	1.11	2.175	I	O				6.72
27.917	0.00	1.10	2.168	I	O				6.71
28.000	0.00	1.09	2.160	I	O				6.69
28.083	0.00	1.08	2.153	I	O				6.68
28.167	0.00	1.08	2.145	I	O				6.66
28.250	0.00	1.07	2.138	I	O				6.64
28.333	0.00	1.06	2.131	I	O				6.63
28.417	0.00	1.05	2.123	I	O				6.61
28.500	0.00	1.04	2.116	I	O				6.60
28.583	0.00	1.04	2.109	I	O				6.58
28.667	0.00	1.03	2.102	I	O				6.57
28.750	0.00	1.02	2.095	I	O				6.55
28.833	0.00	1.01	2.088	I	O				6.54
28.917	0.00	1.00	2.081	I	O				6.52
29.000	0.00	1.00	2.074	I	O				6.51
29.083	0.00	0.99	2.067	I	O				6.49
29.167	0.00	0.98	2.060	I	O				6.48
29.250	0.00	0.97	2.054	I	O				6.47
29.333	0.00	0.96	2.047	I	O				6.45
29.417	0.00	0.96	2.040	I	O				6.44
29.500	0.00	0.95	2.034	I	O				6.42
29.583	0.00	0.94	2.027	I	O				6.41
29.667	0.00	0.94	2.021	I	O				6.40

29.750	0.00	0.93	2.014	I	O					6.38
29.833	0.00	0.92	2.008	I	O					6.37
29.917	0.00	0.91	2.002	I	O					6.36
30.000	0.00	0.91	1.996	I	O					6.34
30.083	0.00	0.90	1.989	I	O					6.33
30.167	0.00	0.89	1.983	I	O					6.31
30.250	0.00	0.89	1.977	I	O					6.30
30.333	0.00	0.88	1.971	I	O					6.28
30.417	0.00	0.87	1.965	I	O					6.27
30.500	0.00	0.87	1.959	I	O					6.26
30.583	0.00	0.86	1.953	I	O					6.24
30.667	0.00	0.85	1.947	I	O					6.23
30.750	0.00	0.85	1.941	I	O					6.21
30.833	0.00	0.84	1.935	I	O					6.20
30.917	0.00	0.83	1.930	I	O					6.19
31.000	0.00	0.83	1.924	I	O					6.17
31.083	0.00	0.82	1.918	I	O					6.16
31.167	0.00	0.81	1.913	I	O					6.15
31.250	0.00	0.81	1.907	I	O					6.13
31.333	0.00	0.80	1.902	I	O					6.12
31.417	0.00	0.79	1.896	I	O					6.11
31.500	0.00	0.79	1.891	I	O					6.09
31.583	0.00	0.78	1.885	I	O					6.08
31.667	0.00	0.78	1.880	I	O					6.07
31.750	0.00	0.77	1.875	I	O					6.06
31.833	0.00	0.76	1.869	I	O					6.04
31.917	0.00	0.76	1.864	I	O					6.03
32.000	0.00	0.75	1.859	I	O					6.02
32.083	0.00	0.75	1.854	I	O					6.01
32.167	0.00	0.74	1.849	I	O					5.99
32.250	0.00	0.74	1.843	I	O					5.98
32.333	0.00	0.73	1.838	I	O					5.97
32.417	0.00	0.72	1.833	I	O					5.96
32.500	0.00	0.72	1.828	I	O					5.95
32.583	0.00	0.71	1.823	I	O					5.93
32.667	0.00	0.71	1.819	I	O					5.92
32.750	0.00	0.70	1.814	I	O					5.91
32.833	0.00	0.70	1.809	I	O					5.90
32.917	0.00	0.69	1.804	I	O					5.89
33.000	0.00	0.69	1.799	I	O					5.88
33.083	0.00	0.68	1.795	I	O					5.86
33.167	0.00	0.68	1.790	I	O					5.85
33.250	0.00	0.67	1.785	I	O					5.84
33.333	0.00	0.67	1.781	I	O					5.83
33.417	0.00	0.66	1.776	I	O					5.82
33.500	0.00	0.66	1.772	I	O					5.81
33.583	0.00	0.65	1.767	I	O					5.80
33.667	0.00	0.65	1.763	I	O					5.79
33.750	0.00	0.64	1.758	I	O					5.78
33.833	0.00	0.64	1.754	I	O					5.77
33.917	0.00	0.63	1.749	I	O					5.76
34.000	0.00	0.63	1.745	I	O					5.75
34.083	0.00	0.62	1.741	I	O					5.74
34.167	0.00	0.62	1.737	I	O					5.73

34.250	0.00	0.61	1.732	I O				5.72
34.333	0.00	0.61	1.728	I O				5.71
34.417	0.00	0.60	1.724	I O				5.70
34.500	0.00	0.60	1.720	I O				5.69
34.583	0.00	0.59	1.716	I O				5.68
34.667	0.00	0.59	1.712	I O				5.67
34.750	0.00	0.58	1.708	I O				5.66
34.833	0.00	0.58	1.704	I O				5.65
34.917	0.00	0.58	1.700	I O				5.64
35.000	0.00	0.57	1.696	I O				5.63
35.083	0.00	0.57	1.692	I O				5.62
35.167	0.00	0.56	1.688	I O				5.61
35.250	0.00	0.56	1.684	I O				5.60
35.333	0.00	0.55	1.680	I O				5.59
35.417	0.00	0.55	1.676	I O				5.58
35.500	0.00	0.54	1.673	I O				5.57
35.583	0.00	0.54	1.669	I O				5.57
35.667	0.00	0.54	1.665	I O				5.56
35.750	0.00	0.53	1.662	I O				5.55
35.833	0.00	0.53	1.658	I O				5.54
35.917	0.00	0.52	1.654	I O				5.53
36.000	0.00	0.52	1.651	I O				5.52
36.083	0.00	0.52	1.647	I O				5.51
36.167	0.00	0.51	1.644	I O				5.51
36.250	0.00	0.51	1.640	I O				5.50
36.333	0.00	0.50	1.637	I O				5.49
36.417	0.00	0.50	1.633	I O				5.48
36.500	0.00	0.50	1.630	IO				5.47
36.583	0.00	0.49	1.626	IO				5.46
36.667	0.00	0.49	1.623	IO				5.46
36.750	0.00	0.49	1.620	IO				5.45
36.833	0.00	0.48	1.616	IO				5.44
36.917	0.00	0.48	1.613	IO				5.43
37.000	0.00	0.47	1.610	IO				5.42
37.083	0.00	0.47	1.606	IO				5.42
37.167	0.00	0.47	1.603	IO				5.41
37.250	0.00	0.46	1.600	IO				5.40
37.333	0.00	0.46	1.597	IO				5.39
37.417	0.00	0.46	1.594	IO				5.39
37.500	0.00	0.45	1.590	IO				5.38
37.583	0.00	0.45	1.587	IO				5.37
37.667	0.00	0.45	1.584	IO				5.36
37.750	0.00	0.44	1.581	IO				5.36
37.833	0.00	0.44	1.578	IO				5.35
37.917	0.00	0.44	1.575	IO				5.34
38.000	0.00	0.43	1.572	IO				5.34
38.083	0.00	0.43	1.569	IO				5.33
38.167	0.00	0.43	1.566	IO				5.32
38.250	0.00	0.43	1.563	IO				5.31
38.333	0.00	0.43	1.560	IO				5.30
38.417	0.00	0.43	1.557	IO				5.30
38.500	0.00	0.43	1.554	IO				5.29
38.583	0.00	0.43	1.551	IO				5.28
38.667	0.00	0.43	1.549	IO				5.27

38.750	0.00	0.43	1.546	IO				5.27
38.833	0.00	0.43	1.543	IO				5.26
38.917	0.00	0.43	1.540	IO				5.25
39.000	0.00	0.43	1.537	IO				5.24
39.083	0.00	0.43	1.534	IO				5.24
39.167	0.00	0.43	1.531	IO				5.23
39.250	0.00	0.43	1.528	IO				5.22
39.333	0.00	0.42	1.525	IO				5.21
39.417	0.00	0.42	1.522	IO				5.21
39.500	0.00	0.42	1.519	IO				5.20
39.583	0.00	0.42	1.516	IO				5.19
39.667	0.00	0.42	1.513	IO				5.18
39.750	0.00	0.42	1.510	IO				5.17
39.833	0.00	0.42	1.508	IO				5.17
39.917	0.00	0.42	1.505	IO				5.16
40.000	0.00	0.42	1.502	IO				5.15
40.083	0.00	0.42	1.499	IO				5.14
40.167	0.00	0.42	1.496	IO				5.14
40.250	0.00	0.42	1.493	IO				5.13
40.333	0.00	0.42	1.490	IO				5.12
40.417	0.00	0.42	1.487	IO				5.11
40.500	0.00	0.42	1.484	IO				5.11
40.583	0.00	0.42	1.481	IO				5.10
40.667	0.00	0.42	1.479	IO				5.09
40.750	0.00	0.42	1.476	IO				5.08
40.833	0.00	0.42	1.473	IO				5.08
40.917	0.00	0.42	1.470	IO				5.07
41.000	0.00	0.42	1.467	IO				5.06
41.083	0.00	0.42	1.464	IO				5.05
41.167	0.00	0.42	1.461	IO				5.05
41.250	0.00	0.42	1.458	IO				5.04
41.333	0.00	0.42	1.456	IO				5.03
41.417	0.00	0.42	1.453	IO				5.02
41.500	0.00	0.42	1.450	IO				5.02
41.583	0.00	0.42	1.447	IO				5.01
41.667	0.00	0.42	1.444	IO				5.00
41.750	0.00	0.41	1.441	IO				4.99
41.833	0.00	0.41	1.438	IO				4.99
41.917	0.00	0.41	1.436	IO				4.98
42.000	0.00	0.41	1.433	IO				4.97
42.083	0.00	0.41	1.430	IO				4.96
42.167	0.00	0.41	1.427	IO				4.96
42.250	0.00	0.41	1.424	IO				4.95
42.333	0.00	0.41	1.421	IO				4.94
42.417	0.00	0.41	1.418	IO				4.93
42.500	0.00	0.41	1.416	IO				4.93
42.583	0.00	0.41	1.413	IO				4.92
42.667	0.00	0.41	1.410	IO				4.91
42.750	0.00	0.41	1.407	IO				4.91
42.833	0.00	0.41	1.404	IO				4.90
42.917	0.00	0.41	1.401	IO				4.89
43.000	0.00	0.41	1.399	IO				4.88
43.083	0.00	0.41	1.396	IO				4.88
43.167	0.00	0.41	1.393	IO				4.87

43.250	0.00	0.41	1.390	IO				4.86
43.333	0.00	0.41	1.387	IO				4.85
43.417	0.00	0.41	1.385	IO				4.85
43.500	0.00	0.41	1.382	IO				4.84
43.583	0.00	0.41	1.379	IO				4.83
43.667	0.00	0.41	1.376	IO				4.82
43.750	0.00	0.41	1.373	IO				4.82
43.833	0.00	0.41	1.371	IO				4.81
43.917	0.00	0.41	1.368	IO				4.80
44.000	0.00	0.41	1.365	IO				4.80
44.083	0.00	0.41	1.362	IO				4.79
44.167	0.00	0.41	1.359	IO				4.78
44.250	0.00	0.40	1.357	IO				4.77
44.333	0.00	0.40	1.354	IO				4.77
44.417	0.00	0.40	1.351	IO				4.76
44.500	0.00	0.40	1.348	IO				4.75
44.583	0.00	0.40	1.345	IO				4.74
44.667	0.00	0.40	1.343	IO				4.74
44.750	0.00	0.40	1.340	IO				4.73
44.833	0.00	0.40	1.337	IO				4.72
44.917	0.00	0.40	1.334	IO				4.72
45.000	0.00	0.40	1.332	IO				4.71
45.083	0.00	0.40	1.329	IO				4.70
45.167	0.00	0.40	1.326	IO				4.69
45.250	0.00	0.40	1.323	IO				4.69
45.333	0.00	0.40	1.320	IO				4.68
45.417	0.00	0.40	1.318	IO				4.67
45.500	0.00	0.40	1.315	IO				4.66
45.583	0.00	0.40	1.312	IO				4.66
45.667	0.00	0.40	1.309	IO				4.65
45.750	0.00	0.40	1.307	IO				4.64
45.833	0.00	0.40	1.304	IO				4.64
45.917	0.00	0.40	1.301	IO				4.63
46.000	0.00	0.40	1.298	IO				4.62
46.083	0.00	0.40	1.296	IO				4.61
46.167	0.00	0.40	1.293	IO				4.61
46.250	0.00	0.40	1.290	IO				4.60
46.333	0.00	0.40	1.288	IO				4.59
46.417	0.00	0.40	1.285	IO				4.59
46.500	0.00	0.40	1.282	IO				4.58
46.583	0.00	0.40	1.279	IO				4.57
46.667	0.00	0.40	1.277	IO				4.56
46.750	0.00	0.40	1.274	IO				4.56
46.833	0.00	0.39	1.271	IO				4.55
46.917	0.00	0.39	1.268	IO				4.54
47.000	0.00	0.39	1.266	IO				4.54
47.083	0.00	0.39	1.263	IO				4.53
47.167	0.00	0.39	1.260	IO				4.52
47.250	0.00	0.39	1.258	IO				4.52
47.333	0.00	0.39	1.255	IO				4.51
47.417	0.00	0.39	1.252	IO				4.50
47.500	0.00	0.39	1.249	IO				4.49
47.583	0.00	0.39	1.247	IO				4.49
47.667	0.00	0.39	1.244	IO				4.48

47.750	0.00	0.39	1.241	IO					4.47
47.833	0.00	0.39	1.239	IO					4.47
47.917	0.00	0.39	1.236	IO					4.46
48.000	0.00	0.39	1.233	IO					4.45
48.083	0.00	0.39	1.231	IO					4.44
48.167	0.00	0.39	1.228	IO					4.44
48.250	0.00	0.39	1.225	IO					4.43
48.333	0.00	0.39	1.223	IO					4.42
48.417	0.00	0.39	1.220	IO					4.42
48.500	0.00	0.39	1.217	IO					4.41
48.583	0.00	0.39	1.215	IO					4.40
48.667	0.00	0.39	1.212	IO					4.40
48.750	0.00	0.39	1.209	IO					4.39
48.833	0.00	0.39	1.207	IO					4.38
48.917	0.00	0.39	1.204	IO					4.38
49.000	0.00	0.39	1.201	IO					4.37
49.083	0.00	0.39	1.199	IO					4.36
49.167	0.00	0.39	1.196	IO					4.35
49.250	0.00	0.39	1.193	IO					4.35
49.333	0.00	0.39	1.191	IO					4.34
49.417	0.00	0.39	1.188	IO					4.33
49.500	0.00	0.38	1.185	IO					4.33
49.583	0.00	0.38	1.183	IO					4.32
49.667	0.00	0.38	1.180	IO					4.31
49.750	0.00	0.38	1.177	IO					4.31
49.833	0.00	0.38	1.175	IO					4.30
49.917	0.00	0.38	1.172	IO					4.29
50.000	0.00	0.38	1.169	IO					4.29
50.083	0.00	0.38	1.167	IO					4.28
50.167	0.00	0.38	1.164	IO					4.27
50.250	0.00	0.38	1.162	IO					4.26
50.333	0.00	0.38	1.159	IO					4.26
50.417	0.00	0.38	1.156	IO					4.25
50.500	0.00	0.38	1.154	IO					4.24
50.583	0.00	0.38	1.151	IO					4.24
50.667	0.00	0.38	1.148	IO					4.23
50.750	0.00	0.38	1.146	IO					4.22
50.833	0.00	0.38	1.143	IO					4.22
50.917	0.00	0.38	1.141	IO					4.21
51.000	0.00	0.38	1.138	IO					4.20
51.083	0.00	0.38	1.135	IO					4.20
51.167	0.00	0.38	1.133	IO					4.19
51.250	0.00	0.38	1.130	IO					4.18
51.333	0.00	0.38	1.127	IO					4.18
51.417	0.00	0.38	1.125	IO					4.17
51.500	0.00	0.38	1.122	IO					4.16
51.583	0.00	0.38	1.120	IO					4.16
51.667	0.00	0.38	1.117	IO					4.15
51.750	0.00	0.38	1.115	IO					4.14
51.833	0.00	0.38	1.112	IO					4.14
51.917	0.00	0.38	1.109	IO					4.13
52.000	0.00	0.38	1.107	IO					4.12
52.083	0.00	0.38	1.104	IO					4.12
52.167	0.00	0.37	1.102	IO					4.11

52.250	0.00	0.37	1.099	IO				4.10
52.333	0.00	0.37	1.096	IO				4.09
52.417	0.00	0.37	1.094	IO				4.09
52.500	0.00	0.37	1.091	IO				4.08
52.583	0.00	0.37	1.089	IO				4.07
52.667	0.00	0.37	1.086	IO				4.07
52.750	0.00	0.37	1.084	IO				4.06
52.833	0.00	0.37	1.081	IO				4.05
52.917	0.00	0.37	1.078	IO				4.05
53.000	0.00	0.37	1.076	IO				4.04
53.083	0.00	0.37	1.073	IO				4.03
53.167	0.00	0.37	1.071	IO				4.03
53.250	0.00	0.37	1.068	IO				4.02
53.333	0.00	0.37	1.066	IO				4.01
53.417	0.00	0.37	1.063	IO				4.01
53.500	0.00	0.37	1.061	IO				4.00
53.583	0.00	0.37	1.058	IO				3.99
53.667	0.00	0.37	1.055	IO				3.99
53.750	0.00	0.37	1.053	IO				3.98
53.833	0.00	0.37	1.050	IO				3.97
53.917	0.00	0.37	1.048	IO				3.97
54.000	0.00	0.37	1.045	IO				3.96
54.083	0.00	0.37	1.043	IO				3.95
54.167	0.00	0.37	1.040	IO				3.95
54.250	0.00	0.37	1.038	IO				3.94
54.333	0.00	0.37	1.035	IO				3.94
54.417	0.00	0.37	1.033	IO				3.93
54.500	0.00	0.37	1.030	IO				3.92
54.583	0.00	0.37	1.028	IO				3.92
54.667	0.00	0.36	1.025	IO				3.91
54.750	0.00	0.36	1.023	IO				3.90
54.833	0.00	0.36	1.020	IO				3.90
54.917	0.00	0.36	1.018	IO				3.89
55.000	0.00	0.36	1.015	IO				3.88
55.083	0.00	0.36	1.013	IO				3.88
55.167	0.00	0.36	1.010	IO				3.87
55.250	0.00	0.36	1.008	IO				3.86
55.333	0.00	0.36	1.005	IO				3.86
55.417	0.00	0.36	1.003	IO				3.85
55.500	0.00	0.36	1.000	IO				3.84
55.583	0.00	0.36	0.998	IO				3.84
55.667	0.00	0.36	0.995	IO				3.83
55.750	0.00	0.36	0.993	IO				3.82
55.833	0.00	0.36	0.990	IO				3.82
55.917	0.00	0.36	0.988	IO				3.81
56.000	0.00	0.36	0.985	IO				3.80
56.083	0.00	0.36	0.983	IO				3.80
56.167	0.00	0.36	0.980	IO				3.79
56.250	0.00	0.36	0.978	IO				3.79
56.333	0.00	0.36	0.975	IO				3.78
56.417	0.00	0.36	0.973	IO				3.77
56.500	0.00	0.36	0.970	IO				3.77
56.583	0.00	0.36	0.968	IO				3.76
56.667	0.00	0.36	0.966	IO				3.75

56.750	0.00	0.36	0.963	IO				3.75
56.833	0.00	0.35	0.961	IO				3.74
56.917	0.00	0.35	0.958	IO				3.73
57.000	0.00	0.35	0.956	IO				3.73
57.083	0.00	0.35	0.953	IO				3.72
57.167	0.00	0.35	0.951	IO				3.71
57.250	0.00	0.35	0.949	IO				3.71
57.333	0.00	0.35	0.946	IO				3.70
57.417	0.00	0.35	0.944	IO				3.70
57.500	0.00	0.35	0.941	IO				3.69
57.583	0.00	0.35	0.939	IO				3.68
57.667	0.00	0.35	0.936	IO				3.68
57.750	0.00	0.35	0.934	IO				3.67
57.833	0.00	0.35	0.932	IO				3.66
57.917	0.00	0.35	0.929	IO				3.66
58.000	0.00	0.35	0.927	IO				3.65
58.083	0.00	0.35	0.924	IO				3.64
58.167	0.00	0.35	0.922	IO				3.63
58.250	0.00	0.35	0.920	IO				3.63
58.333	0.00	0.35	0.917	IO				3.62
58.417	0.00	0.35	0.915	IO				3.61
58.500	0.00	0.35	0.912	IO				3.60
58.583	0.00	0.35	0.910	IO				3.59
58.667	0.00	0.35	0.908	IO				3.59
58.750	0.00	0.34	0.905	IO				3.58
58.833	0.00	0.34	0.903	IO				3.57
58.917	0.00	0.34	0.901	IO				3.56
59.000	0.00	0.34	0.898	IO				3.55
59.083	0.00	0.34	0.896	IO				3.55
59.167	0.00	0.34	0.893	IO				3.54
59.250	0.00	0.34	0.891	IO				3.53
59.333	0.00	0.34	0.889	IO				3.52
59.417	0.00	0.34	0.886	IO				3.51
59.500	0.00	0.34	0.884	IO				3.51
59.583	0.00	0.34	0.882	IO				3.50
59.667	0.00	0.34	0.879	IO				3.49
59.750	0.00	0.34	0.877	IO				3.48
59.833	0.00	0.34	0.875	IO				3.48
59.917	0.00	0.34	0.872	IO				3.47
60.000	0.00	0.34	0.870	IO				3.46
60.083	0.00	0.34	0.868	IO				3.45
60.167	0.00	0.34	0.865	IO				3.45
60.250	0.00	0.34	0.863	IO				3.44
60.333	0.00	0.34	0.861	IO				3.43
60.417	0.00	0.33	0.858	IO				3.42
60.500	0.00	0.33	0.856	IO				3.41
60.583	0.00	0.33	0.854	IO				3.41
60.667	0.00	0.33	0.852	IO				3.40
60.750	0.00	0.33	0.849	IO				3.39
60.833	0.00	0.33	0.847	IO				3.38
60.917	0.00	0.33	0.845	IO				3.38
61.000	0.00	0.33	0.842	IO				3.37
61.083	0.00	0.33	0.840	IO				3.36
61.167	0.00	0.33	0.838	IO				3.35

61.250	0.00	0.33	0.836	IO				3.35
61.333	0.00	0.33	0.833	IO				3.34
61.417	0.00	0.33	0.831	IO				3.33
61.500	0.00	0.33	0.829	IO				3.32
61.583	0.00	0.33	0.826	IO				3.32
61.667	0.00	0.33	0.824	IO				3.31
61.750	0.00	0.33	0.822	IO				3.30
61.833	0.00	0.33	0.820	IO				3.29
61.917	0.00	0.33	0.817	IO				3.29
62.000	0.00	0.33	0.815	IO				3.28
62.083	0.00	0.33	0.813	IO				3.27
62.167	0.00	0.32	0.811	IO				3.26
62.250	0.00	0.32	0.809	IO				3.26
62.333	0.00	0.32	0.806	IO				3.25
62.417	0.00	0.32	0.804	IO				3.24
62.500	0.00	0.32	0.802	IO				3.23
62.583	0.00	0.32	0.800	IO				3.23
62.667	0.00	0.32	0.797	IO				3.22
62.750	0.00	0.32	0.795	IO				3.21
62.833	0.00	0.32	0.793	IO				3.20
62.917	0.00	0.32	0.791	IO				3.20
63.000	0.00	0.32	0.789	IO				3.19
63.083	0.00	0.32	0.786	IO				3.18
63.167	0.00	0.32	0.784	IO				3.18
63.250	0.00	0.32	0.782	IO				3.17
63.333	0.00	0.32	0.780	IO				3.16
63.417	0.00	0.32	0.778	IO				3.15
63.500	0.00	0.32	0.775	IO				3.15
63.583	0.00	0.32	0.773	IO				3.14
63.667	0.00	0.32	0.771	IO				3.13
63.750	0.00	0.32	0.769	IO				3.12
63.833	0.00	0.32	0.767	IO				3.12
63.917	0.00	0.31	0.765	IO				3.11
64.000	0.00	0.31	0.762	IO				3.10
64.083	0.00	0.31	0.760	IO				3.10
64.167	0.00	0.31	0.758	IO				3.09
64.250	0.00	0.31	0.756	IO				3.08
64.333	0.00	0.31	0.754	IO				3.07
64.417	0.00	0.31	0.752	IO				3.07
64.500	0.00	0.31	0.749	IO				3.06
64.583	0.00	0.31	0.747	IO				3.05
64.667	0.00	0.31	0.745	IO				3.05
64.750	0.00	0.31	0.743	IO				3.04
64.833	0.00	0.31	0.741	IO				3.03
64.917	0.00	0.31	0.739	IO				3.02
65.000	0.00	0.31	0.737	IO				3.02
65.083	0.00	0.31	0.734	IO				3.01
65.167	0.00	0.31	0.732	IO				3.00
65.250	0.00	0.31	0.730	IO				3.00
65.333	0.00	0.31	0.728	IO				2.99
65.417	0.00	0.31	0.726	IO				2.98
65.500	0.00	0.31	0.724	IO				2.97
65.583	0.00	0.31	0.722	IO				2.97
65.667	0.00	0.31	0.720	IO				2.96

65.750	0.00	0.30	0.718	IO				2.95
65.833	0.00	0.30	0.715	IO				2.95
65.917	0.00	0.30	0.713	IO				2.94
66.000	0.00	0.30	0.711	IO				2.93
66.083	0.00	0.30	0.709	IO				2.93
66.167	0.00	0.30	0.707	IO				2.92
66.250	0.00	0.30	0.705	IO				2.91
66.333	0.00	0.30	0.703	IO				2.91
66.417	0.00	0.30	0.701	IO				2.90
66.500	0.00	0.30	0.699	IO				2.89
66.583	0.00	0.30	0.697	IO				2.88
66.667	0.00	0.30	0.695	IO				2.88
66.750	0.00	0.30	0.693	IO				2.87
66.833	0.00	0.30	0.691	IO				2.86
66.917	0.00	0.30	0.688	IO				2.86
67.000	0.00	0.30	0.686	IO				2.85
67.083	0.00	0.30	0.684	IO				2.84
67.167	0.00	0.30	0.682	IO				2.84
67.250	0.00	0.30	0.680	IO				2.83
67.333	0.00	0.30	0.678	IO				2.82
67.417	0.00	0.30	0.676	IO				2.82
67.500	0.00	0.30	0.674	IO				2.81
67.583	0.00	0.30	0.672	IO				2.80
67.667	0.00	0.29	0.670	IO				2.80
67.750	0.00	0.29	0.668	IO				2.79
67.833	0.00	0.29	0.666	IO				2.78
67.917	0.00	0.29	0.664	IO				2.78
68.000	0.00	0.29	0.662	IO				2.77
68.083	0.00	0.29	0.660	IO				2.76
68.167	0.00	0.29	0.658	IO				2.76
68.250	0.00	0.29	0.656	IO				2.75
68.333	0.00	0.29	0.654	IO				2.74
68.417	0.00	0.29	0.652	IO				2.74
68.500	0.00	0.29	0.650	IO				2.73
68.583	0.00	0.29	0.648	IO				2.72
68.667	0.00	0.29	0.646	IO				2.72
68.750	0.00	0.29	0.644	IO				2.71
68.833	0.00	0.29	0.642	IO				2.70
68.917	0.00	0.29	0.640	IO				2.70
69.000	0.00	0.29	0.638	IO				2.69
69.083	0.00	0.29	0.636	IO				2.68
69.167	0.00	0.29	0.634	IO				2.68
69.250	0.00	0.29	0.632	IO				2.67
69.333	0.00	0.29	0.630	IO				2.66
69.417	0.00	0.29	0.628	IO				2.66
69.500	0.00	0.29	0.626	IO				2.65
69.583	0.00	0.29	0.624	IO				2.64
69.667	0.00	0.28	0.622	IO				2.64
69.750	0.00	0.28	0.620	IO				2.63
69.833	0.00	0.28	0.618	IO				2.62
69.917	0.00	0.28	0.616	IO				2.62
70.000	0.00	0.28	0.614	IO				2.61
70.083	0.00	0.28	0.612	IO				2.60
70.167	0.00	0.28	0.611	IO				2.60

70.250	0.00	0.28	0.609	IO					2.59
70.333	0.00	0.28	0.607	IO					2.58
70.417	0.00	0.28	0.605	IO					2.58
70.500	0.00	0.28	0.603	IO					2.57
70.583	0.00	0.28	0.601	IO					2.57
70.667	0.00	0.28	0.599	IO					2.56
70.750	0.00	0.28	0.597	IO					2.55
70.833	0.00	0.28	0.595	IO					2.55
70.917	0.00	0.28	0.593	IO					2.54
71.000	0.00	0.28	0.591	IO					2.53
71.083	0.00	0.28	0.589	IO					2.53
71.167	0.00	0.28	0.587	IO					2.52
71.250	0.00	0.28	0.585	IO					2.51
71.333	0.00	0.28	0.584	IO					2.51
71.417	0.00	0.28	0.582	IO					2.50
71.500	0.00	0.28	0.580	IO					2.50
71.583	0.00	0.28	0.578	IO					2.49
71.667	0.00	0.27	0.576	IO					2.48
71.750	0.00	0.27	0.574	IO					2.48
71.833	0.00	0.27	0.572	IO					2.47
71.917	0.00	0.27	0.570	IO					2.46
72.000	0.00	0.27	0.568	IO					2.46
72.083	0.00	0.27	0.567	IO					2.45
72.167	0.00	0.27	0.565	IO					2.45
72.250	0.00	0.27	0.563	IO					2.44
72.333	0.00	0.27	0.561	IO					2.43
72.417	0.00	0.27	0.559	IO					2.43
72.500	0.00	0.27	0.557	IO					2.42
72.583	0.00	0.27	0.555	IO					2.41
72.667	0.00	0.27	0.553	IO					2.41
72.750	0.00	0.27	0.552	IO					2.40
72.833	0.00	0.27	0.550	IO					2.40
72.917	0.00	0.27	0.548	IO					2.39
73.000	0.00	0.27	0.546	IO					2.38
73.083	0.00	0.27	0.544	IO					2.38
73.167	0.00	0.27	0.542	IO					2.37
73.250	0.00	0.27	0.541	IO					2.37
73.333	0.00	0.27	0.539	IO					2.36
73.417	0.00	0.27	0.537	IO					2.35
73.500	0.00	0.27	0.535	IO					2.35
73.583	0.00	0.27	0.533	IO					2.34
73.667	0.00	0.27	0.531	IO					2.33
73.750	0.00	0.26	0.530	IO					2.33
73.833	0.00	0.26	0.528	IO					2.32
73.917	0.00	0.26	0.526	IO					2.32
74.000	0.00	0.26	0.524	IO					2.31
74.083	0.00	0.26	0.522	IO					2.30
74.167	0.00	0.26	0.520	IO					2.30
74.250	0.00	0.26	0.519	IO					2.29
74.333	0.00	0.26	0.517	IO					2.29
74.417	0.00	0.26	0.515	IO					2.28
74.500	0.00	0.26	0.513	IO					2.27
74.583	0.00	0.26	0.511	IO					2.27
74.667	0.00	0.26	0.510	IO					2.26

74.750	0.00	0.26	0.508	IO				2.26
74.833	0.00	0.26	0.506	IO				2.25
74.917	0.00	0.26	0.504	IO				2.24
75.000	0.00	0.26	0.502	IO				2.24
75.083	0.00	0.26	0.501	IO				2.23
75.167	0.00	0.26	0.499	IO				2.23
75.250	0.00	0.26	0.497	IO				2.22
75.333	0.00	0.26	0.495	IO				2.21
75.417	0.00	0.26	0.494	IO				2.21
75.500	0.00	0.26	0.492	IO				2.20
75.583	0.00	0.26	0.490	IO				2.20
75.667	0.00	0.26	0.488	IO				2.19
75.750	0.00	0.26	0.487	IO				2.19
75.833	0.00	0.26	0.485	IO				2.18
75.917	0.00	0.26	0.483	IO				2.17
76.000	0.00	0.25	0.481	IO				2.17
76.083	0.00	0.25	0.479	IO				2.16
76.167	0.00	0.25	0.478	IO				2.16
76.250	0.00	0.25	0.476	IO				2.15
76.333	0.00	0.25	0.474	IO				2.14
76.417	0.00	0.25	0.473	IO				2.14
76.500	0.00	0.25	0.471	IO				2.13
76.583	0.00	0.25	0.469	IO				2.13
76.667	0.00	0.25	0.467	IO				2.12
76.750	0.00	0.25	0.466	IO				2.12
76.833	0.00	0.25	0.464	IO				2.11
76.917	0.00	0.25	0.462	IO				2.10
77.000	0.00	0.25	0.460	O				2.10
77.083	0.00	0.25	0.459	O				2.09
77.167	0.00	0.25	0.457	O				2.09
77.250	0.00	0.25	0.455	O				2.08
77.333	0.00	0.25	0.454	O				2.08
77.417	0.00	0.25	0.452	O				2.07
77.500	0.00	0.25	0.450	O				2.06
77.583	0.00	0.25	0.448	O				2.06
77.667	0.00	0.25	0.447	O				2.05
77.750	0.00	0.25	0.445	O				2.05
77.833	0.00	0.25	0.443	O				2.04
77.917	0.00	0.25	0.442	O				2.04
78.000	0.00	0.25	0.440	O				2.03
78.083	0.00	0.25	0.438	O				2.02
78.167	0.00	0.25	0.437	O				2.02
78.250	0.00	0.24	0.435	O				2.01
78.333	0.00	0.24	0.433	O				2.01
78.417	0.00	0.24	0.431	O				2.00
78.500	0.00	0.24	0.430	O				2.00
78.583	0.00	0.24	0.428	O				1.99
78.667	0.00	0.24	0.426	O				1.99
78.750	0.00	0.24	0.425	O				1.98
78.833	0.00	0.24	0.423	O				1.97
78.917	0.00	0.24	0.421	O				1.97
79.000	0.00	0.24	0.420	O				1.96
79.083	0.00	0.24	0.418	O				1.96
79.167	0.00	0.24	0.416	O				1.95

79.250	0.00	0.24	0.415	O				1.95
79.333	0.00	0.24	0.413	O				1.94
79.417	0.00	0.24	0.411	O				1.94
79.500	0.00	0.24	0.410	O				1.93
79.583	0.00	0.24	0.408	O				1.92
79.667	0.00	0.24	0.407	O				1.92
79.750	0.00	0.24	0.405	O				1.91
79.833	0.00	0.24	0.403	O				1.91
79.917	0.00	0.24	0.402	O				1.90
80.000	0.00	0.24	0.400	O				1.90
80.083	0.00	0.24	0.398	O				1.89
80.167	0.00	0.24	0.397	O				1.89
80.250	0.00	0.24	0.395	O				1.88
80.333	0.00	0.24	0.393	O				1.88
80.417	0.00	0.24	0.392	O				1.87
80.500	0.00	0.24	0.390	O				1.87
80.583	0.00	0.23	0.389	O				1.86
80.667	0.00	0.23	0.387	O				1.85
80.750	0.00	0.23	0.385	O				1.85
80.833	0.00	0.23	0.384	O				1.84
80.917	0.00	0.23	0.382	O				1.84
81.000	0.00	0.23	0.381	O				1.83
81.083	0.00	0.23	0.379	O				1.83
81.167	0.00	0.23	0.377	O				1.82
81.250	0.00	0.23	0.376	O				1.82
81.333	0.00	0.23	0.374	O				1.81
81.417	0.00	0.23	0.373	O				1.81
81.500	0.00	0.23	0.371	O				1.80
81.583	0.00	0.23	0.369	O				1.80
81.667	0.00	0.23	0.368	O				1.79
81.750	0.00	0.23	0.366	O				1.79
81.833	0.00	0.23	0.365	O				1.78
81.917	0.00	0.23	0.363	O				1.77
82.000	0.00	0.23	0.361	O				1.77
82.083	0.00	0.23	0.360	O				1.76
82.167	0.00	0.23	0.358	O				1.76
82.250	0.00	0.23	0.357	O				1.75
82.333	0.00	0.23	0.355	O				1.75
82.417	0.00	0.23	0.354	O				1.74
82.500	0.00	0.23	0.352	O				1.74
82.583	0.00	0.23	0.350	O				1.73
82.667	0.00	0.23	0.349	O				1.73
82.750	0.00	0.23	0.347	O				1.72
82.833	0.00	0.23	0.346	O				1.72
82.917	0.00	0.23	0.344	O				1.71
83.000	0.00	0.23	0.343	O				1.71
83.083	0.00	0.22	0.341	O				1.70
83.167	0.00	0.22	0.340	O				1.70
83.250	0.00	0.22	0.338	O				1.69
83.333	0.00	0.22	0.336	O				1.69
83.417	0.00	0.22	0.335	O				1.68
83.500	0.00	0.22	0.333	O				1.68
83.583	0.00	0.22	0.332	O				1.67
83.667	0.00	0.22	0.330	O				1.67

83.750	0.00	0.22	0.329	O					1.66
83.833	0.00	0.22	0.327	O					1.66
83.917	0.00	0.22	0.326	O					1.65
84.000	0.00	0.22	0.324	O					1.65
84.083	0.00	0.22	0.323	O					1.64
84.167	0.00	0.22	0.321	O					1.64
84.250	0.00	0.22	0.320	O					1.63
84.333	0.00	0.22	0.318	O					1.63
84.417	0.00	0.22	0.317	O					1.62
84.500	0.00	0.22	0.315	O					1.62
84.583	0.00	0.22	0.314	O					1.61
84.667	0.00	0.22	0.312	O					1.61
84.750	0.00	0.22	0.311	O					1.60
84.833	0.00	0.22	0.309	O					1.60
84.917	0.00	0.22	0.308	O					1.59
85.000	0.00	0.22	0.306	O					1.59
85.083	0.00	0.22	0.305	O					1.58
85.167	0.00	0.22	0.303	O					1.58
85.250	0.00	0.22	0.302	O					1.57
85.333	0.00	0.22	0.300	O					1.57
85.417	0.00	0.22	0.299	O					1.56
85.500	0.00	0.22	0.297	O					1.56
85.583	0.00	0.22	0.296	O					1.55
85.667	0.00	0.21	0.294	O					1.55
85.750	0.00	0.21	0.293	O					1.54
85.833	0.00	0.21	0.291	O					1.54
85.917	0.00	0.21	0.290	O					1.53
86.000	0.00	0.21	0.288	O					1.53
86.083	0.00	0.21	0.287	O					1.52
86.167	0.00	0.21	0.285	O					1.52
86.250	0.00	0.21	0.284	O					1.51
86.333	0.00	0.21	0.282	O					1.51
86.417	0.00	0.21	0.281	O					1.50
86.500	0.00	0.21	0.279	O					1.50
86.583	0.00	0.21	0.278	O					1.49
86.667	0.00	0.21	0.277	O					1.49
86.750	0.00	0.21	0.275	O					1.48
86.833	0.00	0.21	0.274	O					1.48
86.917	0.00	0.21	0.272	O					1.47
87.000	0.00	0.21	0.271	O					1.47
87.083	0.00	0.21	0.269	O					1.46
87.167	0.00	0.21	0.268	O					1.46
87.250	0.00	0.21	0.266	O					1.45
87.333	0.00	0.21	0.265	O					1.45
87.417	0.00	0.21	0.264	O					1.44
87.500	0.00	0.21	0.262	O					1.44
87.583	0.00	0.21	0.261	O					1.43
87.667	0.00	0.21	0.259	O					1.43
87.750	0.00	0.21	0.258	O					1.42
87.833	0.00	0.21	0.256	O					1.42
87.917	0.00	0.21	0.255	O					1.42
88.000	0.00	0.21	0.254	O					1.41
88.083	0.00	0.21	0.252	O					1.41
88.167	0.00	0.21	0.251	O					1.40

88.250	0.00	0.21	0.249	O				1.40
88.333	0.00	0.21	0.248	O				1.39
88.417	0.00	0.20	0.246	O				1.39
88.500	0.00	0.20	0.245	O				1.38
88.583	0.00	0.20	0.244	O				1.38
88.667	0.00	0.20	0.242	O				1.37
88.750	0.00	0.20	0.241	O				1.37
88.833	0.00	0.20	0.239	O				1.36
88.917	0.00	0.20	0.238	O				1.36
89.000	0.00	0.20	0.237	O				1.35
89.083	0.00	0.20	0.235	O				1.35
89.167	0.00	0.20	0.234	O				1.35
89.250	0.00	0.20	0.232	O				1.34
89.333	0.00	0.20	0.231	O				1.34
89.417	0.00	0.20	0.230	O				1.33
89.500	0.00	0.20	0.228	O				1.33
89.583	0.00	0.20	0.227	O				1.32
89.667	0.00	0.20	0.226	O				1.32
89.750	0.00	0.20	0.224	O				1.31
89.833	0.00	0.20	0.223	O				1.31
89.917	0.00	0.20	0.221	O				1.30
90.000	0.00	0.20	0.220	O				1.30
90.083	0.00	0.20	0.219	O				1.29
90.167	0.00	0.20	0.217	O				1.29
90.250	0.00	0.20	0.216	O				1.29
90.333	0.00	0.20	0.215	O				1.28
90.417	0.00	0.20	0.213	O				1.28
90.500	0.00	0.20	0.212	O				1.27
90.583	0.00	0.20	0.210	O				1.27
90.667	0.00	0.20	0.209	O				1.26
90.750	0.00	0.20	0.208	O				1.26
90.833	0.00	0.20	0.206	O				1.25
90.917	0.00	0.20	0.205	O				1.25
91.000	0.00	0.20	0.204	O				1.25
91.083	0.00	0.20	0.202	O				1.24
91.167	0.00	0.20	0.201	O				1.24
91.250	0.00	0.19	0.200	O				1.23
91.333	0.00	0.19	0.198	O				1.23
91.417	0.00	0.19	0.197	O				1.22
91.500	0.00	0.19	0.196	O				1.22
91.583	0.00	0.19	0.194	O				1.21
91.667	0.00	0.19	0.193	O				1.21
91.750	0.00	0.19	0.192	O				1.21
91.833	0.00	0.19	0.190	O				1.20
91.917	0.00	0.19	0.189	O				1.20
92.000	0.00	0.19	0.188	O				1.19
92.083	0.00	0.19	0.186	O				1.19
92.167	0.00	0.19	0.185	O				1.18
92.250	0.00	0.19	0.184	O				1.18
92.333	0.00	0.19	0.182	O				1.17
92.417	0.00	0.19	0.181	O				1.17
92.500	0.00	0.19	0.180	O				1.17
92.583	0.00	0.19	0.178	O				1.16
92.667	0.00	0.19	0.177	O				1.16

92.750	0.00	0.19	0.176	O				1.15
92.833	0.00	0.19	0.175	O				1.15
92.917	0.00	0.19	0.173	O				1.14
93.000	0.00	0.19	0.172	O				1.14
93.083	0.00	0.19	0.171	O				1.14
93.167	0.00	0.19	0.169	O				1.13
93.250	0.00	0.19	0.168	O				1.13
93.333	0.00	0.19	0.167	O				1.12
93.417	0.00	0.19	0.165	O				1.12
93.500	0.00	0.19	0.164	O				1.11
93.583	0.00	0.19	0.163	O				1.11
93.667	0.00	0.19	0.162	O				1.11
93.750	0.00	0.19	0.160	O				1.10
93.833	0.00	0.19	0.159	O				1.10
93.917	0.00	0.19	0.158	O				1.09
94.000	0.00	0.19	0.156	O				1.09
94.083	0.00	0.19	0.155	O				1.08
94.167	0.00	0.19	0.154	O				1.08
94.250	0.00	0.18	0.153	O				1.08
94.333	0.00	0.18	0.151	O				1.07
94.417	0.00	0.18	0.150	O				1.07
94.500	0.00	0.18	0.149	O				1.06
94.583	0.00	0.18	0.148	O				1.06
94.667	0.00	0.18	0.146	O				1.05
94.750	0.00	0.18	0.145	O				1.05
94.833	0.00	0.18	0.144	O				1.05
94.917	0.00	0.18	0.143	O				1.04
95.000	0.00	0.18	0.141	O				1.04
95.083	0.00	0.18	0.140	O				1.03
95.167	0.00	0.18	0.139	O				1.03
95.250	0.00	0.18	0.138	O				1.02
95.333	0.00	0.18	0.136	O				1.02
95.417	0.00	0.18	0.135	O				1.02
95.500	0.00	0.18	0.134	O				1.01
95.583	0.00	0.18	0.133	O				1.01
95.667	0.00	0.18	0.131	O				1.00
95.750	0.00	0.18	0.130	O				1.00
95.833	0.00	0.18	0.129	O				0.99
95.917	0.00	0.18	0.128	O				0.99
96.000	0.00	0.18	0.126	O				0.98
96.083	0.00	0.18	0.125	O				0.98
96.167	0.00	0.18	0.124	O				0.97
96.250	0.00	0.18	0.123	O				0.96
96.333	0.00	0.18	0.121	O				0.96
96.417	0.00	0.17	0.120	O				0.95
96.500	0.00	0.17	0.119	O				0.95
96.583	0.00	0.17	0.118	O				0.94
96.667	0.00	0.17	0.117	O				0.94
96.750	0.00	0.17	0.115	O				0.93
96.833	0.00	0.17	0.114	O				0.92
96.917	0.00	0.17	0.113	O				0.92
97.000	0.00	0.17	0.112	O				0.91
97.083	0.00	0.17	0.111	O				0.91
97.167	0.00	0.17	0.110	O				0.90

97.250	0.00	0.17	0.108	O				0.90
97.333	0.00	0.17	0.107	O				0.89
97.417	0.00	0.17	0.106	O				0.88
97.500	0.00	0.17	0.105	O				0.88
97.583	0.00	0.17	0.104	O				0.87
97.667	0.00	0.17	0.103	O				0.87
97.750	0.00	0.16	0.102	O				0.86
97.833	0.00	0.16	0.100	O				0.86
97.917	0.00	0.16	0.099	O				0.85
98.000	0.00	0.16	0.098	O				0.85
98.083	0.00	0.16	0.097	O				0.84
98.167	0.00	0.16	0.096	O				0.83
98.250	0.00	0.16	0.095	O				0.83
98.333	0.00	0.16	0.094	O				0.82
98.417	0.00	0.16	0.093	O				0.82
98.500	0.00	0.16	0.091	O				0.81
98.583	0.00	0.16	0.090	O				0.81
98.667	0.00	0.16	0.089	O				0.80
98.750	0.00	0.16	0.088	O				0.80
98.833	0.00	0.16	0.087	O				0.79
98.917	0.00	0.16	0.086	O				0.79
99.000	0.00	0.16	0.085	O				0.78
99.083	0.00	0.16	0.084	O				0.78
99.167	0.00	0.16	0.083	O				0.77
99.250	0.00	0.15	0.082	O				0.77
99.333	0.00	0.15	0.081	O				0.76
99.417	0.00	0.15	0.080	O				0.76
99.500	0.00	0.15	0.079	O				0.75
99.583	0.00	0.15	0.078	O				0.75
99.667	0.00	0.15	0.076	O				0.74
99.750	0.00	0.15	0.075	O				0.73
99.833	0.00	0.15	0.074	O				0.73
99.917	0.00	0.15	0.073	O				0.72
100.000	0.00	0.15	0.072	O				0.72
100.083	0.00	0.15	0.071	O				0.71
100.167	0.00	0.15	0.070	O				0.71
100.250	0.00	0.15	0.069	O				0.70
100.333	0.00	0.15	0.068	O				0.70
100.417	0.00	0.15	0.067	O				0.70
100.500	0.00	0.15	0.066	O				0.69
100.583	0.00	0.15	0.065	O				0.69
100.667	0.00	0.15	0.064	O				0.68
100.750	0.00	0.14	0.063	O				0.68
100.833	0.00	0.14	0.062	O				0.67
100.917	0.00	0.14	0.061	O				0.67
101.000	0.00	0.14	0.060	O				0.66
101.083	0.00	0.14	0.059	O				0.65
101.167	0.00	0.14	0.058	O				0.65
101.250	0.00	0.14	0.057	O				0.64
101.333	0.00	0.14	0.056	O				0.63
101.417	0.00	0.14	0.055	O				0.62
101.500	0.00	0.14	0.054	O				0.61
101.583	0.00	0.14	0.054	O				0.61
101.667	0.00	0.13	0.053	O				0.60

101.750	0.00	0.13	0.052	O				0.59
101.833	0.00	0.13	0.051	O				0.58
101.917	0.00	0.13	0.050	O				0.58
102.000	0.00	0.13	0.049	O				0.57
102.083	0.00	0.13	0.048	O				0.56
102.167	0.00	0.13	0.047	O				0.55
102.250	0.00	0.13	0.046	O				0.55
102.333	0.00	0.13	0.045	O				0.54
102.417	0.00	0.12	0.045	O				0.53
102.500	0.00	0.12	0.044	O				0.53
102.583	0.00	0.12	0.043	O				0.52
102.667	0.00	0.12	0.042	O				0.51
102.750	0.00	0.12	0.041	O				0.50
102.833	0.00	0.12	0.040	O				0.50
102.917	0.00	0.12	0.040	O				0.49
103.000	0.00	0.12	0.039	O				0.48
103.083	0.00	0.12	0.038	O				0.48
103.167	0.00	0.12	0.037	O				0.47
103.250	0.00	0.11	0.036	O				0.46
103.333	0.00	0.11	0.036	O				0.46
103.417	0.00	0.11	0.035	O				0.45
103.500	0.00	0.11	0.034	O				0.45
103.583	0.00	0.11	0.033	O				0.44
103.667	0.00	0.11	0.032	O				0.43
103.750	0.00	0.11	0.032	O				0.43
103.833	0.00	0.11	0.031	O				0.42
103.917	0.00	0.11	0.030	O				0.41
104.000	0.00	0.11	0.030	O				0.41
104.083	0.00	0.11	0.029	O				0.40
104.167	0.00	0.10	0.028	O				0.40
104.250	0.00	0.10	0.027	O				0.39
104.333	0.00	0.10	0.027	O				0.38
104.417	0.00	0.10	0.026	O				0.38
104.500	0.00	0.10	0.025	O				0.37
104.583	0.00	0.10	0.025	O				0.37
104.667	0.00	0.10	0.024	O				0.36
104.750	0.00	0.10	0.023	O				0.36
104.833	0.00	0.10	0.022	O				0.35
104.917	0.00	0.10	0.022	O				0.34
105.000	0.00	0.10	0.021	O				0.34
105.083	0.00	0.10	0.020	O				0.33
105.167	0.00	0.09	0.020	O				0.33
105.250	0.00	0.09	0.019	O				0.32
105.333	0.00	0.09	0.019	O				0.31
105.417	0.00	0.09	0.018	O				0.30
105.500	0.00	0.08	0.017	O				0.29
105.583	0.00	0.08	0.017	O				0.28
105.667	0.00	0.08	0.016	O				0.27
105.750	0.00	0.07	0.016	O				0.26
105.833	0.00	0.07	0.015	O				0.25
105.917	0.00	0.07	0.015	O				0.24
106.000	0.00	0.07	0.014	O				0.24
106.083	0.00	0.07	0.014	O				0.23
106.167	0.00	0.06	0.013	O				0.22

106.250	0.00	0.06	0.013	O				0.21
106.333	0.00	0.06	0.013	O				0.21
106.417	0.00	0.06	0.012	O				0.20
106.500	0.00	0.06	0.012	O				0.19
106.583	0.00	0.05	0.011	O				0.19
106.667	0.00	0.05	0.011	O				0.18
106.750	0.00	0.05	0.011	O				0.18
106.833	0.00	0.05	0.010	O				0.17
106.917	0.00	0.05	0.010	O				0.16
107.000	0.00	0.05	0.010	O				0.16
107.083	0.00	0.04	0.009	O				0.15
107.167	0.00	0.04	0.009	O				0.15
107.250	0.00	0.04	0.009	O				0.14
107.333	0.00	0.04	0.008	O				0.14
107.417	0.00	0.04	0.008	O				0.14
107.500	0.00	0.04	0.008	O				0.13
107.583	0.00	0.04	0.008	O				0.13
107.667	0.00	0.04	0.007	O				0.12
107.750	0.00	0.03	0.007	O				0.12
107.833	0.00	0.03	0.007	O				0.11
107.917	0.00	0.03	0.007	O				0.11
108.000	0.00	0.03	0.007	O				0.11
108.083	0.00	0.03	0.006	O				0.10
108.167	0.00	0.03	0.006	O				0.10
108.250	0.00	0.03	0.006	O				0.10
108.333	0.00	0.03	0.006	O				0.09
108.417	0.00	0.03	0.006	O				0.09
108.500	0.00	0.03	0.005	O				0.09
108.583	0.00	0.02	0.005	O				0.09
108.667	0.00	0.02	0.005	O				0.08
108.750	0.00	0.02	0.005	O				0.08
108.833	0.00	0.02	0.005	O				0.08
108.917	0.00	0.02	0.005	O				0.08
109.000	0.00	0.02	0.004	O				0.07
109.083	0.00	0.02	0.004	O				0.07
109.167	0.00	0.02	0.004	O				0.07
109.250	0.00	0.02	0.004	O				0.07
109.333	0.00	0.02	0.004	O				0.06
109.417	0.00	0.02	0.004	O				0.06
109.500	0.00	0.02	0.004	O				0.06
109.583	0.00	0.02	0.004	O				0.06
109.667	0.00	0.02	0.003	O				0.06
109.750	0.00	0.02	0.003	O				0.05
109.833	0.00	0.02	0.003	O				0.05
109.917	0.00	0.01	0.003	O				0.05
110.000	0.00	0.01	0.003	O				0.05
110.083	0.00	0.01	0.003	O				0.05
110.167	0.00	0.01	0.003	O				0.05
110.250	0.00	0.01	0.003	O				0.04
110.333	0.00	0.01	0.003	O				0.04
110.417	0.00	0.01	0.003	O				0.04
110.500	0.00	0.01	0.002	O				0.04
110.583	0.00	0.01	0.002	O				0.04
110.667	0.00	0.01	0.002	O				0.04

110.750	0.00	0.01	0.002	O				0.04
110.833	0.00	0.01	0.002	O				0.04
110.917	0.00	0.01	0.002	O				0.03
111.000	0.00	0.01	0.002	O				0.03
111.083	0.00	0.01	0.002	O				0.03
111.167	0.00	0.01	0.002	O				0.03
111.250	0.00	0.01	0.002	O				0.03
111.333	0.00	0.01	0.002	O				0.03
111.417	0.00	0.01	0.002	O				0.03
111.500	0.00	0.01	0.002	O				0.03
111.583	0.00	0.01	0.002	O				0.03
111.667	0.00	0.01	0.002	O				0.03
111.750	0.00	0.01	0.001	O				0.02
111.833	0.00	0.01	0.001	O				0.02
111.917	0.00	0.01	0.001	O				0.02
112.000	0.00	0.01	0.001	O				0.02
112.083	0.00	0.01	0.001	O				0.02
112.167	0.00	0.01	0.001	O				0.02
112.250	0.00	0.01	0.001	O				0.02
112.333	0.00	0.01	0.001	O				0.02
112.417	0.00	0.01	0.001	O				0.02
112.500	0.00	0.01	0.001	O				0.02
112.583	0.00	0.01	0.001	O				0.02
112.667	0.00	0.00	0.001	O				0.02
112.750	0.00	0.00	0.001	O				0.02
112.833	0.00	0.00	0.001	O				0.02
112.917	0.00	0.00	0.001	O				0.02
113.000	0.00	0.00	0.001	O				0.02
113.083	0.00	0.00	0.001	O				0.01
113.167	0.00	0.00	0.001	O				0.01
113.250	0.00	0.00	0.001	O				0.01
113.333	0.00	0.00	0.001	O				0.01
113.417	0.00	0.00	0.001	O				0.01
113.500	0.00	0.00	0.001	O				0.01
113.583	0.00	0.00	0.001	O				0.01
113.667	0.00	0.00	0.001	O				0.01
113.750	0.00	0.00	0.001	O				0.01
113.833	0.00	0.00	0.001	O				0.01
113.917	0.00	0.00	0.001	O				0.01
114.000	0.00	0.00	0.001	O				0.01
114.083	0.00	0.00	0.001	O				0.01
114.167	0.00	0.00	0.001	O				0.01
114.250	0.00	0.00	0.001	O				0.01
114.333	0.00	0.00	0.001	O				0.01
114.417	0.00	0.00	0.001	O				0.01
114.500	0.00	0.00	0.001	O				0.01
114.583	0.00	0.00	0.000	O				0.01
114.667	0.00	0.00	0.000	O				0.01
114.750	0.00	0.00	0.000	O				0.01
114.833	0.00	0.00	0.000	O				0.01
114.917	0.00	0.00	0.000	O				0.01
115.000	0.00	0.00	0.000	O				0.01
115.083	0.00	0.00	0.000	O				0.01
115.167	0.00	0.00	0.000	O				0.01

```
115.250    0.00    0.00      0.000  O       |        |        |        |      0.01
115.333    0.00    0.00      0.000  O       |        |        |        |      0.01
115.417    0.00    0.00      0.000  O       |        |        |        |      0.01
115.500    0.00    0.00      0.000  O       |        |        |        |      0.01
115.583    0.00    0.00      0.000  O       |        |        |        |      0.01
115.667    0.00    0.00      0.000  O       |        |        |        |      0.01
115.750    0.00    0.00      0.000  O       |        |        |        |      0.01
115.833    0.00    0.00      0.000  O       |        |        |        |      0.00
115.917    0.00    0.00      0.000  O       |        |        |        |      0.00
116.000    0.00    0.00      0.000  O       |        |        |        |      0.00
116.083    0.00    0.00      0.000  O       |        |        |        |      0.00
116.167    0.00    0.00      0.000  O       |        |        |        |      0.00
116.250    0.00    0.00      0.000  O       |        |        |        |      0.00
116.333    0.00    0.00      0.000  O       |        |        |        |      0.00
116.417    0.00    0.00      0.000  O       |        |        |        |      0.00
116.500    0.00    0.00      0.000  O       |        |        |        |      0.00
116.583    0.00    0.00      0.000  O       |        |        |        |      0.00
116.667    0.00    0.00      0.000  O       |        |        |        |      0.00
116.750    0.00    0.00      0.000  O       |        |        |        |      0.00

    ****************************HYDROGRAPH DATA****************************
            Number of intervals =  1401
            Time interval =    5.0 (Min.)
            Maximum/Peak flow rate =        2.461 (CFS)
            Total volume =       4.866 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)       0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
    ************************************************************************

    ------------------------------------------------------------------------


    ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
    Process from Point/Station        1.000 to Point/Station        1.000
    **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
    ________________________________________________________________________
    ********************* HYDROGRAPH INFORMATION **********************

            From study/file name: 32786A1N242.rte
    ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    P R I N T   O F   S T O R M
                 R u n o f f     H y d r o g r a p h
    ------------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

    ------------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0        1.1       2.2       3.2       4.3
  ------------------------------------------------------------------------
    0+ 5       0.0187      0.02  Q        |         |         |         |
    0+10       0.0849      0.10  Q        |         |         |         |
    0+15       0.1180      0.14  |Q       |         |         |         |
    0+20       0.1407      0.18  |Q       |         |         |         |
```

0+25	0.1818	0.24	qQ			
0+30	0.2036	0.28	qQ			
0+35	0.2139	0.31	qQ			
0+40	0.2205	0.32	Q			
0+45	0.2250	0.33	qQ			
0+50	0.2374	0.35	qQ			
0+55	0.2731	0.39	qQ			
1+ 0	0.2906	0.41	qQ			
1+ 5	0.2886	0.42	qQ			
1+10	0.2601	0.39	qQ			
1+15	0.2461	0.39	qQ			
1+20	0.2413	0.38	qQ			
1+25	0.2386	0.38	qQ			
1+30	0.2369	0.38	qQ			
1+35	0.2357	0.39	qQ			
1+40	0.2351	0.39	qQ			
1+45	0.2342	0.39	qQ			
1+50	0.2429	0.40	qQ			
1+55	0.2753	0.43	q Q			
2+ 0	0.2919	0.45	q Q			
2+ 5	0.2985	0.46	q Q			
2+10	0.3026	0.47	q Q			
2+15	0.3052	0.47	q Q			
2+20	0.3070	0.48	q Q			
2+25	0.3083	0.48	q Q			
2+30	0.3092	0.49	q Q			
2+35	0.3192	0.50	q Q			
2+40	0.3530	0.53	qQ			
2+45	0.3695	0.55	q Q			
2+50	0.3762	0.56	q Q			
2+55	0.3802	0.57	q Q			
3+ 0	0.3828	0.57	q Q			
3+ 5	0.3846	0.57	q Q			
3+10	0.3859	0.58	q Q			
3+15	0.3868	0.58	q Q			
3+20	0.3875	0.58	q Q			
3+25	0.3881	0.58	q Q			
3+30	0.3881	0.58	q Q			
3+35	0.3881	0.59	q Q			
3+40	0.3881	0.59	q Q			
3+45	0.3881	0.59	q Q			
3+50	0.3975	0.60	q Q			
3+55	0.4306	0.63	q Q			
4+ 0	0.4471	0.65	q Q			
4+ 5	0.4538	0.66	q Q			
4+10	0.4578	0.67	q Q			
4+15	0.4604	0.67	q Q			
4+20	0.4716	0.68	q Q			
4+25	0.5060	0.72	q Q			
4+30	0.5235	0.74	q Q			
4+35	0.5308	0.75	q Q			
4+40	0.5354	0.76	q Q			
4+45	0.5380	0.76	q Q			
4+50	0.5492	0.77	q Q			

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4+55      0.5836     0.81  |    q Q  |         |         |         |
5+ 0      0.6011     0.83  |    q Q  |         |         |         |
5+ 5      0.5897     0.82  |    q Q  |         |         |         |
5+10      0.5282     0.76  |   q  Q  |         |         |         |
5+15      0.4976     0.73  |   q Q   |         |         |         |
5+20      0.4955     0.73  |   q Q   |         |         |         |
5+25      0.5219     0.76  |   q  Q  |         |         |         |
5+30      0.5342     0.78  |   q  Q  |         |         |         |
5+35      0.5472     0.79  |    q Q  |         |         |         |
5+40      0.5823     0.83  |    q Q  |         |         |         |
5+45      0.5996     0.85  |    q Q  |         |         |         |
5+50      0.6068     0.86  |    q Q  |         |         |         |
5+55      0.6109     0.86  |    q Q  |         |         |         |
6+ 0      0.6144     0.87  |    q  Q |         |         |         |
6+ 5      0.6262     0.88  |    q  Q |         |         |         |
6+10      0.6612     0.92  |     q Q |         |         |         |
6+15      0.6787     0.94  |     q Q |         |         |         |
6+20      0.6860     0.95  |     q Q |         |         |         |
6+25      0.6907     0.96  |     q Q |         |         |         |
6+30      0.6933     0.96  |     q Q |         |         |         |
6+35      0.7044     0.98  |     q  Q|         |         |         |
6+40      0.7389     1.02  |     q  Q|         |         |         |
6+45      0.7564     1.04  |      q Q|         |         |         |
6+50      0.7636     1.05  |      q Q|         |         |         |
6+55      0.7683     1.05  |      q Q|         |         |         |
7+ 0      0.7709     1.06  |      q Q|         |         |         |
7+ 5      0.7727     1.06  |      q Q|         |         |         |
7+10      0.7740     1.07  |      q Q|         |         |         |
7+15      0.7750     1.07  |      q Q|         |         |         |
7+20      0.7849     1.09  |      q  Q         |         |         |
7+25      0.8187     1.12  |      q  Q         |         |         |
7+30      0.8353     1.14  |      q  Q         |         |         |
7+35      0.8513     1.16  |      q  Q         |         |         |
7+40      0.8884     1.20  |       q |Q        |         |         |
7+45      0.9076     1.22  |       q |Q        |         |         |
7+50      0.9254     1.25  |       q |Q        |         |         |
7+55      0.9638     1.29  |       q |Q        |         |         |
8+ 0      0.9839     1.31  |        q| Q       |         |         |
8+ 5      1.0117     1.34  |        q| Q       |         |         |
8+10      1.0839     1.42  |         q  Q      |         |         |
8+15      1.1205     1.46  |         q  Q      |         |         |
8+20      1.1363     1.48  |         q  Q      |         |         |
8+25      1.1463     1.50  |         q  Q      |         |         |
8+30      1.1524     1.51  |         q  Q      |         |         |
8+35      1.1660     1.52  |         q   Q     |         |         |
8+40      1.2024     1.56  |         |q  Q     |         |         |
8+45      1.2208     1.59  |         |q  Q     |         |         |
8+50      1.2381     1.61  |         |q  Q     |         |         |
8+55      1.2765     1.65  |         |q   Q    |         |         |
9+ 0      1.2957     1.67  |         |q   Q    |         |         |
9+ 5      1.3228     1.70  |         | q  Q    |         |         |
9+10      1.3944     1.77  |         | q   Q   |         |         |
9+15      1.4310     1.81  |         |  q  Q   |         |         |
9+20      1.4561     1.84  |         |  q   Q  |         |         |
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9+25	1.4993	1.89	
9+30	1.5219	1.92	
9+35	1.5422	1.94	
9+40	1.5826	1.98	
9+45	1.6036	2.01	
9+50	1.6227	2.03	
9+55	1.6624	2.07	
10+ 0	1.6825	2.10	
10+ 5	1.6262	2.05	
10+10	1.4005	1.82	
10+15	1.2880	1.71	
10+20	1.2439	1.67	
10+25	1.2177	1.65	
10+30	1.2004	1.66	
10+35	1.2351	1.72	
10+40	1.3920	1.91	
10+45	1.4684	2.01	
10+50	1.4973	2.07	
10+55	1.5128	2.12	
11+ 0	1.5258	2.16	
11+ 5	1.5255	2.19	
11+10	1.4990	2.20	
11+15	1.4871	2.22	
11+20	1.4836	2.24	
11+25	1.4828	2.27	
11+30	1.4802	2.29	
11+35	1.4597	2.30	
11+40	1.3922	2.26	
11+45	1.3581	2.25	
11+50	1.3535	2.27	
11+55	1.3779	2.32	
12+ 0	1.3893	2.36	
12+ 5	1.4577	2.45	
12+10	1.6909	2.72	
12+15	1.8076	2.87	
12+20	1.8641	2.96	
12+25	1.9253	3.06	
12+30	1.9610	3.14	
12+35	1.9997	3.21	
12+40	2.0798	3.33	
12+45	2.1220	3.42	
12+50	2.1509	3.49	
12+55	2.1979	3.58	
13+ 0	2.2206	3.64	
13+ 5	2.2782	3.74	
13+10	2.4510	3.96	
13+15	2.5383	4.10	
13+20	2.5746	4.18	
13+25	2.5974	4.26	
13+30	2.6113	4.32	
13+35	2.5182	4.27	
13+40	2.1613	3.95	
13+45	1.9836	3.81	
13+50	1.9136	3.77	

13+55	1.8727	3.75	
14+ 0	1.8441	3.75	
14+ 5	1.8615	3.80	
14+10	1.9794	3.95	
14+15	2.0355	4.04	
14+20	2.0459	4.08	
14+25	2.0217	4.09	
14+30	2.0155	4.11	
14+35	2.0161	4.15	
14+40	2.0174	4.18	
14+45	2.0185	4.21	
14+50	2.0098	4.23	
14+55	1.9780	4.23	
15+ 0	1.9605	4.24	
15+ 5	1.9439	4.25	
15+10	1.9061	4.24	
15+15	1.8869	4.24	
15+20	1.8691	4.23	
15+25	1.8307	4.21	
15+30	1.8106	4.20	
15+35	1.7641	4.17	
15+40	1.6257	4.04	
15+45	1.5559	3.98	
15+50	1.5269	3.96	
15+55	1.5088	3.95	
16+ 0	1.4975	3.95	
16+ 5	1.3495	3.81	
16+10	0.8469	3.31	
16+15	0.5947	3.05	
16+20	0.4924	2.94	
16+25	0.4295	2.87	
16+30	0.3905	2.83	
16+35	0.3540	2.79	
16+40	0.3011	2.73	
16+45	0.2707	2.69	
16+50	0.2546	2.66	
16+55	0.2408	2.64	
17+ 0	0.2382	2.63	
17+ 5	0.2551	2.64	
17+10	0.3200	2.70	
17+15	0.3522	2.73	
17+20	0.3649	2.73	
17+25	0.3723	2.74	
17+30	0.3775	2.74	
17+35	0.3811	2.73	
17+40	0.3837	2.73	
17+45	0.3856	2.73	
17+50	0.3775	2.71	
17+55	0.3457	2.68	
18+ 0	0.3291	2.65	
18+ 5	0.3225	2.63	
18+10	0.3184	2.62	
18+15	0.3158	2.61	
18+20	0.3140	2.59	

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18+25      0.3127     2.58  | q       |         |  Q      |         |
18+30      0.3118     2.57  | q       |         |  Q      |         |
18+35      0.3018     2.55  | q       |         |  Q      |         |
18+40      0.2680     2.51  | q       |         |  Q      |         |
18+45      0.2515     2.48  | q       |         | Q       |         |
18+50      0.2355     2.45  | q       |         | Q       |         |
18+55      0.1984     2.40  |q        |         | Q       |         |
19+ 0      0.1792     2.37  |q        |         |Q        |         |
19+ 5      0.1801     2.35  |q        |         |Q        |         |
19+10      0.2078     2.37  |q        |         |Q        |         |
19+15      0.2209     2.37  | q       |         |Q        |         |
19+20      0.2344     2.37  | q       |         |Q        |         |
19+25      0.2696     2.40  | q       |         | Q       |         |
19+30      0.2878     2.41  | q       |         | Q       |         |
19+35      0.2863     2.40  | q       |         | Q       |         |
19+40      0.2579     2.36  | q       |         |Q        |         |
19+45      0.2449     2.33  | q       |         |Q        |         |
19+50      0.2313     2.31  | q       |         |Q        |         |
19+55      0.1962     2.26  |q        |         Q         |         |
20+ 0      0.1779     2.23  |q        |         Q         |         |
20+ 5      0.1794     2.22  |q        |         Q         |         |
20+10      0.2078     2.24  |q        |         Q         |         |
20+15      0.2209     2.24  | q       |         Q         |         |
20+20      0.2251     2.24  | q       |         Q         |         |
20+25      0.2271     2.23  | q       |         Q         |         |
20+30      0.2288     2.22  | q       |         Q         |         |
20+35      0.2300     2.21  | q       |         Q         |         |
20+40      0.2307     2.20  | q       |         Q         |         |
20+45      0.2316     2.19  | q       |         Q         |         |
20+50      0.2229     2.17  | q       |         Q         |         |
20+55      0.1904     2.13  |q        |        Q|         |         |
21+ 0      0.1739     2.10  |q        |        Q|         |         |
21+ 5      0.1765     2.09  |q        |        Q|         |         |
21+10      0.2056     2.11  |q        |        Q|         |         |
21+15      0.2196     2.12  | q       |        Q|         |         |
21+20      0.2151     2.10  |q        |        Q|         |         |
21+25      0.1847     2.06  |q        |        Q|         |         |
21+30      0.1698     2.04  |q        |       Q |         |         |
21+35      0.1737     2.03  |q        |       Q |         |         |
21+40      0.2034     2.05  |q        |       Q |         |         |
21+45      0.2183     2.06  | q       |        Q|         |         |
21+50      0.2144     2.04  |q        |       Q |         |         |
21+55      0.1847     2.00  |q        |       Q |         |         |
22+ 0      0.1698     1.98  |q        |       Q |         |         |
22+ 5      0.1737     1.97  |q        |       Q |         |         |
22+10      0.2034     1.99  |q        |       Q |         |         |
22+15      0.2183     2.00  | q       |       Q |         |         |
22+20      0.2144     1.99  |q        |       Q |         |         |
22+25      0.1847     1.95  |q        |       Q |         |         |
22+30      0.1698     1.92  |q        |      Q  |         |         |
22+35      0.1643     1.91  |q        |      Q  |         |         |
22+40      0.1610     1.89  |q        |      Q  |         |         |
22+45      0.1593     1.88  |q        |      Q  |         |         |
22+50      0.1581     1.87  |q        |      Q  |         |         |
```

```
22+55      0.1575     1.86  |q        |      Q  |         |         |
23+ 0      0.1565     1.85  |q        |      Q  |         |         |
23+ 5      0.1559     1.84  |q        |      Q  |         |         |
23+10      0.1552     1.83  |q        |     Q   |         |         |
23+15      0.1552     1.82  |q        |     Q   |         |         |
23+20      0.1552     1.81  |q        |     Q   |         |         |
23+25      0.1552     1.80  |q        |     Q   |         |         |
23+30      0.1552     1.79  |q        |     Q   |         |         |
23+35      0.1552     1.78  |q        |     Q   |         |         |
23+40      0.1552     1.78  |q        |     Q   |         |         |
23+45      0.1552     1.77  |q        |     Q   |         |         |
23+50      0.1552     1.76  |q        |     Q   |         |         |
23+55      0.1552     1.75  |q        |     Q   |         |         |
24+ 0      0.1552     1.74  |q        |     Q   |         |         |
24+ 5      0.1366     1.71  |q        |    Q    |         |         |
24+10      0.0703     1.64  q         |    Q    |         |         |
24+15      0.0372     1.59  q         |   Q     |         |         |
24+20      0.0239     1.57  q         |   Q     |         |         |
24+25      0.0159     1.55  q         |   Q     |         |         |
24+30      0.0107     1.53  q         |   Q     |         |         |
24+35      0.0070     1.51  q         |   Q     |         |         |
24+40      0.0044     1.50  q         |  Q      |         |         |
24+45      0.0026     1.49  q         |  Q      |         |         |
24+50      0.0013     1.47  q         |  Q      |         |         |
24+55      0.0000     1.46  q         |  Q      |         |         |
25+ 0      0.0000     1.45  q         |  Q      |         |         |
25+ 5      0.0000     1.44  q         |  Q      |         |         |
25+10      0.0000     1.43  q         |  Q      |         |         |
25+15      0.0000     1.42  q         |  Q      |         |         |
25+20      0.0000     1.40  q         |  Q      |         |         |
25+25      0.0000     1.39  q         | Q       |         |         |
25+30      0.0000     1.38  q         | Q       |         |         |
25+35      0.0000     1.37  q         | Q       |         |         |
25+40      0.0000     1.36  q         | Q       |         |         |
25+45      0.0000     1.35  q         | Q       |         |         |
25+50      0.0000     1.34  q         | Q       |         |         |
25+55      0.0000     1.33  q         | Q       |         |         |
26+ 0      0.0000     1.32  q         | Q       |         |         |
26+ 5      0.0000     1.31  q         | Q       |         |         |
26+10      0.0000     1.30  q         | Q       |         |         |
26+15      0.0000     1.29  q         |Q        |         |         |
26+20      0.0000     1.28  q         |Q        |         |         |
26+25      0.0000     1.27  q         |Q        |         |         |
26+30      0.0000     1.26  q         |Q        |         |         |
26+35      0.0000     1.25  q         |Q        |         |         |
26+40      0.0000     1.24  q         |Q        |         |         |
26+45      0.0000     1.23  q         |Q        |         |         |
26+50      0.0000     1.22  q         |Q        |         |         |
26+55      0.0000     1.21  q         |Q        |         |         |
27+ 0      0.0000     1.20  q         |Q        |         |         |
27+ 5      0.0000     1.19  q         |Q        |         |         |
27+10      0.0000     1.18  q         Q         |         |         |
27+15      0.0000     1.17  q         Q         |         |         |
27+20      0.0000     1.16  q         Q         |         |         |
```

27+25	0.0000	1.15	q	Q			
27+30	0.0000	1.15	q	Q			
27+35	0.0000	1.14	q	Q			
27+40	0.0000	1.13	q	Q			
27+45	0.0000	1.12	q	Q			
27+50	0.0000	1.11	q	Q			
27+55	0.0000	1.10	q	Q			
28+ 0	0.0000	1.09	q	Q			
28+ 5	0.0000	1.08	q	Q			
28+10	0.0000	1.08	q	Q			
28+15	0.0000	1.07	q	Q			
28+20	0.0000	1.06	q	Q			
28+25	0.0000	1.05	q	Q			
28+30	0.0000	1.04	q	Q			
28+35	0.0000	1.04	q	Q			
28+40	0.0000	1.03	q	Q			
28+45	0.0000	1.02	q	Q			
28+50	0.0000	1.01	q	Q			
28+55	0.0000	1.00	q	Q			
29+ 0	0.0000	1.00	q	Q			
29+ 5	0.0000	0.99	q	Q			
29+10	0.0000	0.98	q	Q			
29+15	0.0000	0.97	q	Q			
29+20	0.0000	0.96	q	Q			
29+25	0.0000	0.96	q	Q			
29+30	0.0000	0.95	q	Q			
29+35	0.0000	0.94	q	Q			
29+40	0.0000	0.94	q	Q			
29+45	0.0000	0.93	q	Q			
29+50	0.0000	0.92	q	Q			
29+55	0.0000	0.91	q	Q			
30+ 0	0.0000	0.91	q	Q			
30+ 5	0.0000	0.90	q	Q			
30+10	0.0000	0.89	q	Q			
30+15	0.0000	0.89	q	Q			
30+20	0.0000	0.88	q	Q			
30+25	0.0000	0.87	q	Q			
30+30	0.0000	0.87	q	Q			
30+35	0.0000	0.86	q	Q			
30+40	0.0000	0.85	q	Q			
30+45	0.0000	0.85	q	Q			
30+50	0.0000	0.84	q	Q			
30+55	0.0000	0.83	q	Q			
31+ 0	0.0000	0.83	q	Q			
31+ 5	0.0000	0.82	q	Q			
31+10	0.0000	0.81	q	Q			
31+15	0.0000	0.81	q	Q			
31+20	0.0000	0.80	q	Q			
31+25	0.0000	0.79	q	Q			
31+30	0.0000	0.79	q	Q			
31+35	0.0000	0.78	q	Q			
31+40	0.0000	0.78	q	Q			
31+45	0.0000	0.77	q	Q			
31+50	0.0000	0.76	q	Q			

31+55	0.0000	0.76	q	Q				
32+ 0	0.0000	0.75	q	Q				
32+ 5	0.0000	0.75	q	Q				
32+10	0.0000	0.74	q	Q				
32+15	0.0000	0.74	q	Q				
32+20	0.0000	0.73	q	Q				
32+25	0.0000	0.72	q	Q				
32+30	0.0000	0.72	q	Q				
32+35	0.0000	0.71	q	Q				
32+40	0.0000	0.71	q	Q				
32+45	0.0000	0.70	q	Q				
32+50	0.0000	0.70	q	Q				
32+55	0.0000	0.69	q	Q				
33+ 0	0.0000	0.69	q	Q				
33+ 5	0.0000	0.68	q	Q				
33+10	0.0000	0.68	q	Q				
33+15	0.0000	0.67	q	Q				
33+20	0.0000	0.67	q	Q				
33+25	0.0000	0.66	q	Q				
33+30	0.0000	0.66	q	Q				
33+35	0.0000	0.65	q	Q				
33+40	0.0000	0.65	q	Q				
33+45	0.0000	0.64	q	Q				
33+50	0.0000	0.64	q	Q				
33+55	0.0000	0.63	q	Q				
34+ 0	0.0000	0.63	q	Q				
34+ 5	0.0000	0.62	q	Q				
34+10	0.0000	0.62	q	Q				
34+15	0.0000	0.61	q	Q				
34+20	0.0000	0.61	q	Q				
34+25	0.0000	0.60	q	Q				
34+30	0.0000	0.60	q	Q				
34+35	0.0000	0.59	q	Q				
34+40	0.0000	0.59	q	Q				
34+45	0.0000	0.58	q	Q				
34+50	0.0000	0.58	q	Q				
34+55	0.0000	0.58	q	Q				
35+ 0	0.0000	0.57	q	Q				
35+ 5	0.0000	0.57	q	Q				
35+10	0.0000	0.56	q	Q				
35+15	0.0000	0.56	q	Q				
35+20	0.0000	0.55	q	Q				
35+25	0.0000	0.55	q	Q				
35+30	0.0000	0.54	q	Q				
35+35	0.0000	0.54	q	Q				
35+40	0.0000	0.54	q	Q				
35+45	0.0000	0.53	q	Q				
35+50	0.0000	0.53	q	Q				
35+55	0.0000	0.52	q	Q				
36+ 0	0.0000	0.52	q	Q				
36+ 5	0.0000	0.52	q	Q				
36+10	0.0000	0.51	q	Q				
36+15	0.0000	0.51	q	Q				
36+20	0.0000	0.50	q	Q				

36+25	0.0000	0.50	q	Q				
36+30	0.0000	0.50	q	Q				
36+35	0.0000	0.49	q	Q				
36+40	0.0000	0.49	q	Q				
36+45	0.0000	0.49	q	Q				
36+50	0.0000	0.48	q	Q				
36+55	0.0000	0.48	q	Q				
37+ 0	0.0000	0.47	q	Q				
37+ 5	0.0000	0.47	q	Q				
37+10	0.0000	0.47	q	Q				
37+15	0.0000	0.46	q	Q				
37+20	0.0000	0.46	q	Q				
37+25	0.0000	0.46	q	Q				
37+30	0.0000	0.45	q	Q				
37+35	0.0000	0.45	q	Q				
37+40	0.0000	0.45	q	Q				
37+45	0.0000	0.44	q	Q				
37+50	0.0000	0.44	q	Q				
37+55	0.0000	0.44	q	Q				
38+ 0	0.0000	0.43	q	Q				
38+ 5	0.0000	0.43	q	Q				
38+10	0.0000	0.43	q	Q				
38+15	0.0000	0.43	q	Q				
38+20	0.0000	0.43	q	Q				
38+25	0.0000	0.43	q	Q				
38+30	0.0000	0.43	q	Q				
38+35	0.0000	0.43	q	Q				
38+40	0.0000	0.43	q	Q				
38+45	0.0000	0.43	q	Q				
38+50	0.0000	0.43	q	Q				
38+55	0.0000	0.43	q	Q				
39+ 0	0.0000	0.43	q	Q				
39+ 5	0.0000	0.43	q	Q				
39+10	0.0000	0.43	q	Q				
39+15	0.0000	0.43	q	Q				
39+20	0.0000	0.42	q	Q				
39+25	0.0000	0.42	q	Q				
39+30	0.0000	0.42	q	Q				
39+35	0.0000	0.42	q	Q				
39+40	0.0000	0.42	q	Q				
39+45	0.0000	0.42	q	Q				
39+50	0.0000	0.42	q	Q				
39+55	0.0000	0.42	q	Q				
40+ 0	0.0000	0.42	q	Q				
40+ 5	0.0000	0.42	q	Q				
40+10	0.0000	0.42	q	Q				
40+15	0.0000	0.42	q	Q				
40+20	0.0000	0.42	q	Q				
40+25	0.0000	0.42	q	Q				
40+30	0.0000	0.42	q	Q				
40+35	0.0000	0.42	q	Q				
40+40	0.0000	0.42	q	Q				
40+45	0.0000	0.42	q	Q				
40+50	0.0000	0.42	q	Q				

40+55	0.0000	0.42	q	Q				
41+ 0	0.0000	0.42	q	Q				
41+ 5	0.0000	0.42	q	Q				
41+10	0.0000	0.42	q	Q				
41+15	0.0000	0.42	q	Q				
41+20	0.0000	0.42	q	Q				
41+25	0.0000	0.42	q	Q				
41+30	0.0000	0.42	q	Q				
41+35	0.0000	0.42	q	Q				
41+40	0.0000	0.42	q	Q				
41+45	0.0000	0.41	q	Q				
41+50	0.0000	0.41	q	Q				
41+55	0.0000	0.41	q	Q				
42+ 0	0.0000	0.41	q	Q				
42+ 5	0.0000	0.41	q	Q				
42+10	0.0000	0.41	q	Q				
42+15	0.0000	0.41	q	Q				
42+20	0.0000	0.41	q	Q				
42+25	0.0000	0.41	q	Q				
42+30	0.0000	0.41	q	Q				
42+35	0.0000	0.41	q	Q				
42+40	0.0000	0.41	q	Q				
42+45	0.0000	0.41	q	Q				
42+50	0.0000	0.41	q	Q				
42+55	0.0000	0.41	q	Q				
43+ 0	0.0000	0.41	q	Q				
43+ 5	0.0000	0.41	q	Q				
43+10	0.0000	0.41	q	Q				
43+15	0.0000	0.41	q	Q				
43+20	0.0000	0.41	q	Q				
43+25	0.0000	0.41	q	Q				
43+30	0.0000	0.41	q	Q				
43+35	0.0000	0.41	q	Q				
43+40	0.0000	0.41	q	Q				
43+45	0.0000	0.41	q	Q				
43+50	0.0000	0.41	q	Q				
43+55	0.0000	0.41	q	Q				
44+ 0	0.0000	0.41	q	Q				
44+ 5	0.0000	0.41	q	Q				
44+10	0.0000	0.41	q	Q				
44+15	0.0000	0.40	q	Q				
44+20	0.0000	0.40	q	Q				
44+25	0.0000	0.40	q	Q				
44+30	0.0000	0.40	q	Q				
44+35	0.0000	0.40	q	Q				
44+40	0.0000	0.40	q	Q				
44+45	0.0000	0.40	q	Q				
44+50	0.0000	0.40	q	Q				
44+55	0.0000	0.40	q	Q				
45+ 0	0.0000	0.40	q	Q				
45+ 5	0.0000	0.40	q	Q				
45+10	0.0000	0.40	q	Q				
45+15	0.0000	0.40	q	Q				
45+20	0.0000	0.40	q	Q				

45+25	0.0000	0.40	q	Q				
45+30	0.0000	0.40	q	Q				
45+35	0.0000	0.40	q	Q				
45+40	0.0000	0.40	q	Q				
45+45	0.0000	0.40	q	Q				
45+50	0.0000	0.40	q	Q				
45+55	0.0000	0.40	q	Q				
46+ 0	0.0000	0.40	q	Q				
46+ 5	0.0000	0.40	q	Q				
46+10	0.0000	0.40	q	Q				
46+15	0.0000	0.40	q	Q				
46+20	0.0000	0.40	q	Q				
46+25	0.0000	0.40	q	Q				
46+30	0.0000	0.40	q	Q				
46+35	0.0000	0.40	q	Q				
46+40	0.0000	0.40	q	Q				
46+45	0.0000	0.40	q	Q				
46+50	0.0000	0.39	q	Q				
46+55	0.0000	0.39	q	Q				
47+ 0	0.0000	0.39	q	Q				
47+ 5	0.0000	0.39	q	Q				
47+10	0.0000	0.39	q	Q				
47+15	0.0000	0.39	q	Q				
47+20	0.0000	0.39	q	Q				
47+25	0.0000	0.39	q	Q				
47+30	0.0000	0.39	q	Q				
47+35	0.0000	0.39	q	Q				
47+40	0.0000	0.39	q	Q				
47+45	0.0000	0.39	q	Q				
47+50	0.0000	0.39	q	Q				
47+55	0.0000	0.39	q	Q				
48+ 0	0.0000	0.39	q	Q				
48+ 5	0.0000	0.39	q	Q				
48+10	0.0000	0.39	q	Q				
48+15	0.0000	0.39	q	Q				
48+20	0.0000	0.39	q	Q				
48+25	0.0000	0.39	q	Q				
48+30	0.0000	0.39	q	Q				
48+35	0.0000	0.39	q	Q				
48+40	0.0000	0.39	q	Q				
48+45	0.0000	0.39	q	Q				
48+50	0.0000	0.39	q	Q				
48+55	0.0000	0.39	q	Q				
49+ 0	0.0000	0.39	q	Q				
49+ 5	0.0000	0.39	q	Q				
49+10	0.0000	0.39	q	Q				
49+15	0.0000	0.39	q	Q				
49+20	0.0000	0.39	q	Q				
49+25	0.0000	0.39	q	Q				
49+30	0.0000	0.38	q	Q				
49+35	0.0000	0.38	q	Q				
49+40	0.0000	0.38	q	Q				
49+45	0.0000	0.38	q	Q				
49+50	0.0000	0.38	q	Q				

49+55	0.0000	0.38	q	Q				
50+ 0	0.0000	0.38	q	Q				
50+ 5	0.0000	0.38	q	Q				
50+10	0.0000	0.38	q	Q				
50+15	0.0000	0.38	q	Q				
50+20	0.0000	0.38	q	Q				
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50+30	0.0000	0.38	q	Q				
50+35	0.0000	0.38	q	Q				
50+40	0.0000	0.38	q	Q				
50+45	0.0000	0.38	q	Q				
50+50	0.0000	0.38	q	Q				
50+55	0.0000	0.38	q	Q				
51+ 0	0.0000	0.38	q	Q				
51+ 5	0.0000	0.38	q	Q				
51+10	0.0000	0.38	q	Q				
51+15	0.0000	0.38	q	Q				
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51+50	0.0000	0.38	q	Q				
51+55	0.0000	0.38	q	Q				
52+ 0	0.0000	0.38	q	Q				
52+ 5	0.0000	0.38	q	Q				
52+10	0.0000	0.37	q	Q				
52+15	0.0000	0.37	q	Q				
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52+25	0.0000	0.37	q	Q				
52+30	0.0000	0.37	q	Q				
52+35	0.0000	0.37	q	Q				
52+40	0.0000	0.37	q	Q				
52+45	0.0000	0.37	q	Q				
52+50	0.0000	0.37	q	Q				
52+55	0.0000	0.37	q	Q				
53+ 0	0.0000	0.37	q	Q				
53+ 5	0.0000	0.37	q	Q				
53+10	0.0000	0.37	q	Q				
53+15	0.0000	0.37	q	Q				
53+20	0.0000	0.37	q	Q				
53+25	0.0000	0.37	q	Q				
53+30	0.0000	0.37	q	Q				
53+35	0.0000	0.37	q	Q				
53+40	0.0000	0.37	q	Q				
53+45	0.0000	0.37	q	Q				
53+50	0.0000	0.37	q	Q				
53+55	0.0000	0.37	q	Q				
54+ 0	0.0000	0.37	q	Q				
54+ 5	0.0000	0.37	q	Q				
54+10	0.0000	0.37	q	Q				
54+15	0.0000	0.37	q	Q				
54+20	0.0000	0.37	q	Q				

54+25	0.0000	0.37	q	Q				
54+30	0.0000	0.37	q	Q				
54+35	0.0000	0.37	q	Q				
54+40	0.0000	0.36	q	Q				
54+45	0.0000	0.36	q	Q				
54+50	0.0000	0.36	q	Q				
54+55	0.0000	0.36	q	Q				
55+ 0	0.0000	0.36	q	Q				
55+ 5	0.0000	0.36	q	Q				
55+10	0.0000	0.36	q	Q				
55+15	0.0000	0.36	q	Q				
55+20	0.0000	0.36	q	Q				
55+25	0.0000	0.36	q	Q				
55+30	0.0000	0.36	q	Q				
55+35	0.0000	0.36	q	Q				
55+40	0.0000	0.36	q	Q				
55+45	0.0000	0.36	q	Q				
55+50	0.0000	0.36	q	Q				
55+55	0.0000	0.36	q	Q				
56+ 0	0.0000	0.36	q	Q				
56+ 5	0.0000	0.36	q	Q				
56+10	0.0000	0.36	q	Q				
56+15	0.0000	0.36	q	Q				
56+20	0.0000	0.36	q	Q				
56+25	0.0000	0.36	q	Q				
56+30	0.0000	0.36	q	Q				
56+35	0.0000	0.36	q	Q				
56+40	0.0000	0.36	q	Q				
56+45	0.0000	0.36	q	Q				
56+50	0.0000	0.35	q	Q				
56+55	0.0000	0.35	q	Q				
57+ 0	0.0000	0.35	q	Q				
57+ 5	0.0000	0.35	q	Q				
57+10	0.0000	0.35	q	Q				
57+15	0.0000	0.35	q	Q				
57+20	0.0000	0.35	q	Q				
57+25	0.0000	0.35	q	Q				
57+30	0.0000	0.35	q	Q				
57+35	0.0000	0.35	q	Q				
57+40	0.0000	0.35	q	Q				
57+45	0.0000	0.35	q	Q				
57+50	0.0000	0.35	q	Q				
57+55	0.0000	0.35	q	Q				
58+ 0	0.0000	0.35	q	Q				
58+ 5	0.0000	0.35	q	Q				
58+10	0.0000	0.35	q	Q				
58+15	0.0000	0.35	q	Q				
58+20	0.0000	0.35	q	Q				
58+25	0.0000	0.35	q	Q				
58+30	0.0000	0.35	q	Q				
58+35	0.0000	0.35	q	Q				
58+40	0.0000	0.35	q	Q				
58+45	0.0000	0.34	q	Q				
58+50	0.0000	0.34	q	Q				

58+55	0.0000	0.34	q	Q				
59+ 0	0.0000	0.34	q	Q				
59+ 5	0.0000	0.34	q	Q				
59+10	0.0000	0.34	q	Q				
59+15	0.0000	0.34	q	Q				
59+20	0.0000	0.34	q	Q				
59+25	0.0000	0.34	q	Q				
59+30	0.0000	0.34	q	Q				
59+35	0.0000	0.34	q	Q				
59+40	0.0000	0.34	q	Q				
59+45	0.0000	0.34	q	Q				
59+50	0.0000	0.34	q	Q				
59+55	0.0000	0.34	q	Q				
60+ 0	0.0000	0.34	q	Q				
60+ 5	0.0000	0.34	q	Q				
60+10	0.0000	0.34	q	Q				
60+15	0.0000	0.34	q	Q				
60+20	0.0000	0.34	q	Q				
60+25	0.0000	0.33	q	Q				
60+30	0.0000	0.33	q	Q				
60+35	0.0000	0.33	q	Q				
60+40	0.0000	0.33	q	Q				
60+45	0.0000	0.33	q	Q				
60+50	0.0000	0.33	q	Q				
60+55	0.0000	0.33	q	Q				
61+ 0	0.0000	0.33	q	Q				
61+ 5	0.0000	0.33	q	Q				
61+10	0.0000	0.33	q	Q				
61+15	0.0000	0.33	q	Q				
61+20	0.0000	0.33	q	Q				
61+25	0.0000	0.33	q	Q				
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61+40	0.0000	0.33	q	Q				
61+45	0.0000	0.33	q	Q				
61+50	0.0000	0.33	q	Q				
61+55	0.0000	0.33	q	Q				
62+ 0	0.0000	0.33	q	Q				
62+ 5	0.0000	0.33	q	Q				
62+10	0.0000	0.32	q	Q				
62+15	0.0000	0.32	q	Q				
62+20	0.0000	0.32	q	Q				
62+25	0.0000	0.32	q	Q				
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62+50	0.0000	0.32	q	Q				
62+55	0.0000	0.32	q	Q				
63+ 0	0.0000	0.32	q	Q				
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63+20	0.0000	0.32	q	Q				

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63+45	0.0000	0.32	q Q				
63+50	0.0000	0.32	q Q				
63+55	0.0000	0.31	q Q				
64+ 0	0.0000	0.31	q Q				
64+ 5	0.0000	0.31	q Q				
64+10	0.0000	0.31	q Q				
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66+ 0	0.0000	0.30	q Q				
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66+55	0.0000	0.30	q Q				
67+ 0	0.0000	0.30	q Q				
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67+45	0.0000	0.29	q Q				
67+50	0.0000	0.29	q Q				

67+55	0.0000	0.29	q Q				
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68+55	0.0000	0.29	q Q				
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69+50	0.0000	0.28	q Q				
69+55	0.0000	0.28	q Q				
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72+20	0.0000	0.27	q Q				

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72+55	0.0000	0.27	q Q				
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75+45	0.0000	0.26	q Q				
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75+55	0.0000	0.26	q Q				
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76+40	0.0000	0.25	q Q				
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76+50	0.0000	0.25	q Q				

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77+ 0	0.0000	0.25	q Q				
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77+40	0.0000	0.25	q Q				
77+45	0.0000	0.25	q Q				
77+50	0.0000	0.25	q Q				
77+55	0.0000	0.25	q Q				
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79+55	0.0000	0.24	q Q				
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80+50	0.0000	0.23	q Q				
80+55	0.0000	0.23	q Q				
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86+55	0.0000	0.21	qQ				
87+ 0	0.0000	0.21	qQ				
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88+55	0.0000	0.20	qQ				
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89+55	0.0000	0.20	qQ				
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90+55	0.0000	0.20	qQ				
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91+55	0.0000	0.19	qQ				
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93+55	0.0000	0.19	qQ				
94+ 0	0.0000	0.19	qQ				
94+ 5	0.0000	0.19	qQ				
94+10	0.0000	0.19	qQ				
94+15	0.0000	0.18	qQ				
94+20	0.0000	0.18	qQ				
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94+50	0.0000	0.18	qQ				

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95+ 0	0.0000	0.18	qQ				
95+ 5	0.0000	0.18	qQ				
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95+50	0.0000	0.18	qQ				
95+55	0.0000	0.18	qQ				
96+ 0	0.0000	0.18	qQ				
96+ 5	0.0000	0.18	qQ				
96+10	0.0000	0.18	qQ				
96+15	0.0000	0.18	qQ				
96+20	0.0000	0.18	qQ				
96+25	0.0000	0.17	qQ				
96+30	0.0000	0.17	qQ				
96+35	0.0000	0.17	qQ				
96+40	0.0000	0.17	qQ				
96+45	0.0000	0.17	qQ				
96+50	0.0000	0.17	qQ				
96+55	0.0000	0.17	qQ				
97+ 0	0.0000	0.17	qQ				
97+ 5	0.0000	0.17	qQ				
97+10	0.0000	0.17	qQ				
97+15	0.0000	0.17	qQ				
97+20	0.0000	0.17	qQ				
97+25	0.0000	0.17	qQ				
97+30	0.0000	0.17	qQ				
97+35	0.0000	0.17	qQ				
97+40	0.0000	0.17	qQ				
97+45	0.0000	0.16	qQ				
97+50	0.0000	0.16	qQ				
97+55	0.0000	0.16	qQ				
98+ 0	0.0000	0.16	qQ				
98+ 5	0.0000	0.16	qQ				
98+10	0.0000	0.16	qQ				
98+15	0.0000	0.16	qQ				
98+20	0.0000	0.16	qQ				
98+25	0.0000	0.16	qQ				
98+30	0.0000	0.16	qQ				
98+35	0.0000	0.16	qQ				
98+40	0.0000	0.16	qQ				
98+45	0.0000	0.16	qQ				
98+50	0.0000	0.16	qQ				
98+55	0.0000	0.16	qQ				
99+ 0	0.0000	0.16	qQ				
99+ 5	0.0000	0.16	qQ				
99+10	0.0000	0.16	qQ				
99+15	0.0000	0.15	qQ				
99+20	0.0000	0.15	qQ				

99+25	0.0000	0.15	qQ				
99+30	0.0000	0.15	qQ				
99+35	0.0000	0.15	qQ				
99+40	0.0000	0.15	qQ				
99+45	0.0000	0.15	qQ				
99+50	0.0000	0.15	qQ				
99+55	0.0000	0.15	qQ				
100+ 0	0.0000	0.15	qQ				
100+ 5	0.0000	0.15	qQ				
100+10	0.0000	0.15	qQ				
100+15	0.0000	0.15	qQ				
100+20	0.0000	0.15	qQ				
100+25	0.0000	0.15	qQ				
100+30	0.0000	0.15	qQ				
100+35	0.0000	0.15	qQ				
100+40	0.0000	0.15	qQ				
100+45	0.0000	0.14	qQ				
100+50	0.0000	0.14	qQ				
100+55	0.0000	0.14	qQ				
101+ 0	0.0000	0.14	qQ				
101+ 5	0.0000	0.14	qQ				
101+10	0.0000	0.14	qQ				
101+15	0.0000	0.14	qQ				
101+20	0.0000	0.14	qQ				
101+25	0.0000	0.14	qQ				
101+30	0.0000	0.14	qQ				
101+35	0.0000	0.14	qQ				
101+40	0.0000	0.13	qQ				
101+45	0.0000	0.13	qQ				
101+50	0.0000	0.13	qQ				
101+55	0.0000	0.13	qQ				
102+ 0	0.0000	0.13	qQ				
102+ 5	0.0000	0.13	qQ				
102+10	0.0000	0.13	qQ				
102+15	0.0000	0.13	qQ				
102+20	0.0000	0.13	qQ				
102+25	0.0000	0.12	qQ				
102+30	0.0000	0.12	qQ				
102+35	0.0000	0.12	qQ				
102+40	0.0000	0.12	qQ				
102+45	0.0000	0.12	qQ				
102+50	0.0000	0.12	qQ				
102+55	0.0000	0.12	qQ				
103+ 0	0.0000	0.12	qQ				
103+ 5	0.0000	0.12	qQ				
103+10	0.0000	0.12	qQ				
103+15	0.0000	0.11	qQ				
103+20	0.0000	0.11	qQ				
103+25	0.0000	0.11	qQ				
103+30	0.0000	0.11	qQ				
103+35	0.0000	0.11	qQ				
103+40	0.0000	0.11	qQ				
103+45	0.0000	0.11	qQ				
103+50	0.0000	0.11	qQ				

103+55	0.0000	0.11	Q				
104+ 0	0.0000	0.11	Q				
104+ 5	0.0000	0.11	Q				
104+10	0.0000	0.10	Q				
104+15	0.0000	0.10	Q				
104+20	0.0000	0.10	Q				
104+25	0.0000	0.10	Q				
104+30	0.0000	0.10	Q				
104+35	0.0000	0.10	Q				
104+40	0.0000	0.10	Q				
104+45	0.0000	0.10	Q				
104+50	0.0000	0.10	Q				
104+55	0.0000	0.10	Q				
105+ 0	0.0000	0.10	Q				
105+ 5	0.0000	0.10	Q				
105+10	0.0000	0.09	Q				
105+15	0.0000	0.09	Q				
105+20	0.0000	0.09	Q				
105+25	0.0000	0.09	Q				
105+30	0.0000	0.08	Q				
105+35	0.0000	0.08	Q				
105+40	0.0000	0.08	Q				
105+45	0.0000	0.07	Q				
105+50	0.0000	0.07	Q				
105+55	0.0000	0.07	Q				
106+ 0	0.0000	0.07	Q				
106+ 5	0.0000	0.07	Q				
106+10	0.0000	0.06	Q				
106+15	0.0000	0.06	Q				
106+20	0.0000	0.06	Q				
106+25	0.0000	0.06	Q				
106+30	0.0000	0.06	Q				
106+35	0.0000	0.05	Q				
106+40	0.0000	0.05	Q				
106+45	0.0000	0.05	Q				
106+50	0.0000	0.05	Q				
106+55	0.0000	0.05	Q				
107+ 0	0.0000	0.05	Q				
107+ 5	0.0000	0.04	Q				
107+10	0.0000	0.04	Q				
107+15	0.0000	0.04	Q				
107+20	0.0000	0.04	Q				
107+25	0.0000	0.04	Q				
107+30	0.0000	0.04	Q				
107+35	0.0000	0.04	Q				
107+40	0.0000	0.04	Q				
107+45	0.0000	0.03	Q				
107+50	0.0000	0.03	Q				
107+55	0.0000	0.03	Q				
108+ 0	0.0000	0.03	Q				
108+ 5	0.0000	0.03	Q				
108+10	0.0000	0.03	Q				
108+15	0.0000	0.03	Q				
108+20	0.0000	0.03	Q				

108+25	0.0000	0.03	Q				
108+30	0.0000	0.03	Q				
108+35	0.0000	0.02	Q				
108+40	0.0000	0.02	Q				
108+45	0.0000	0.02	Q				
108+50	0.0000	0.02	Q				
108+55	0.0000	0.02	Q				
109+ 0	0.0000	0.02	Q				
109+ 5	0.0000	0.02	Q				
109+10	0.0000	0.02	Q				
109+15	0.0000	0.02	Q				
109+20	0.0000	0.02	Q				
109+25	0.0000	0.02	Q				
109+30	0.0000	0.02	Q				
109+35	0.0000	0.02	Q				
109+40	0.0000	0.02	Q				
109+45	0.0000	0.02	Q				
109+50	0.0000	0.02	Q				
109+55	0.0000	0.01	Q				
110+ 0	0.0000	0.01	Q				
110+ 5	0.0000	0.01	Q				
110+10	0.0000	0.01	Q				
110+15	0.0000	0.01	Q				
110+20	0.0000	0.01	Q				
110+25	0.0000	0.01	Q				
110+30	0.0000	0.01	Q				
110+35	0.0000	0.01	Q				
110+40	0.0000	0.01	Q				
110+45	0.0000	0.01	Q				
110+50	0.0000	0.01	Q				
110+55	0.0000	0.01	Q				
111+ 0	0.0000	0.01	Q				
111+ 5	0.0000	0.01	Q				
111+10	0.0000	0.01	Q				
111+15	0.0000	0.01	Q				
111+20	0.0000	0.01	Q				
111+25	0.0000	0.01	Q				
111+30	0.0000	0.01	Q				
111+35	0.0000	0.01	Q				
111+40	0.0000	0.01	Q				
111+45	0.0000	0.01	Q				
111+50	0.0000	0.01	Q				
111+55	0.0000	0.01	Q				
112+ 0	0.0000	0.01	Q				
112+ 5	0.0000	0.01	Q				
112+10	0.0000	0.01	Q				
112+15	0.0000	0.01	Q				
112+20	0.0000	0.01	Q				
112+25	0.0000	0.01	Q				
112+30	0.0000	0.01	Q				
112+35	0.0000	0.01	Q				
112+40	0.0000	0.00	Q				
112+45	0.0000	0.00	Q				
112+50	0.0000	0.00	Q				

```
 112+55        0.0000       0.00  Q          |           |           |           |
 113+ 0        0.0000       0.00  Q          |           |           |           |
 113+ 5        0.0000       0.00  Q          |           |           |           |
 113+10        0.0000       0.00  Q          |           |           |           |
 113+15        0.0000       0.00  Q          |           |           |           |
 113+20        0.0000       0.00  Q          |           |           |           |
 113+25        0.0000       0.00  Q          |           |           |           |
 113+30        0.0000       0.00  Q          |           |           |           |
 113+35        0.0000       0.00  Q          |           |           |           |
 113+40        0.0000       0.00  Q          |           |           |           |
 113+45        0.0000       0.00  Q          |           |           |           |
 113+50        0.0000       0.00  Q          |           |           |           |
 113+55        0.0000       0.00  Q          |           |           |           |
 114+ 0        0.0000       0.00  Q          |           |           |           |
 114+ 5        0.0000       0.00  Q          |           |           |           |
 114+10        0.0000       0.00  Q          |           |           |           |
 114+15        0.0000       0.00  Q          |           |           |           |
 114+20        0.0000       0.00  Q          |           |           |           |
 114+25        0.0000       0.00  Q          |           |           |           |
 114+30        0.0000       0.00  Q          |           |           |           |
 114+35        0.0000       0.00  Q          |           |           |           |
 114+40        0.0000       0.00  Q          |           |           |           |
 114+45        0.0000       0.00  Q          |           |           |           |
 114+50        0.0000       0.00  Q          |           |           |           |
 114+55        0.0000       0.00  Q          |           |           |           |
 115+ 0        0.0000       0.00  Q          |           |           |           |
 115+ 5        0.0000       0.00  Q          |           |           |           |
 115+10        0.0000       0.00  Q          |           |           |           |
 115+15        0.0000       0.00  Q          |           |           |           |
 115+20        0.0000       0.00  Q          |           |           |           |
 115+25        0.0000       0.00  Q          |           |           |           |
 115+30        0.0000       0.00  Q          |           |           |           |
 115+35        0.0000       0.00  Q          |           |           |           |
 115+40        0.0000       0.00  Q          |           |           |           |
 115+45        0.0000       0.00  Q          |           |           |           |
 115+50        0.0000       0.00  Q          |           |           |           |
 115+55        0.0000       0.00  Q          |           |           |           |
 116+ 0        0.0000       0.00  Q          |           |           |           |
 116+ 5        0.0000       0.00  Q          |           |           |           |
 116+10        0.0000       0.00  Q          |           |           |           |
 116+15        0.0000       0.00  Q          |           |           |           |
 116+20        0.0000       0.00  Q          |           |           |           |
 116+25        0.0000       0.00  Q          |           |           |           |
 116+30        0.0000       0.00  Q          |           |           |           |
 116+35        0.0000       0.00  Q          |           |           |           |
 116+40        0.0000       0.00  Q          |           |           |           |
 116+45        0.0000       0.00  Q          |           |           |           |
----------------------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
              Number of intervals =  1401
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =        4.320 (CFS)
              Total volume =       6.470 (Ac.Ft)
        Status of hydrographs being held in storage
```

```
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*************************************************************************

-------------------------------------------------------------------


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        1.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
_____________________________________________________________________
******************** HYDROGRAPH INFORMATION *********************

            From study/file name: 32786A2N242.rte
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T  O F  S T O R M
               R u n o f f     H y d r o g r a p h
-------------------------------------------------------------------
             Hydrograph in   5   Minute intervals (CFS)

-------------------------------------------------------------------
Time(h+m) Add q(CFS)  Tot. Q   0        1.6       3.3       4.9       6.6
-------------------------------------------------------------------
  0+ 5       0.0109      0.03  Q         |         |         |         |
  0+10       0.0560      0.15  Q         |         |         |         |
  0+15       0.0920      0.23  qQ        |         |         |         |
  0+20       0.1114      0.29  qQ        |         |         |         |
  0+25       0.1422      0.38  q Q       |         |         |         |
  0+30       0.1658      0.44  |qQ       |         |         |         |
  0+35       0.1768      0.48  |qQ       |         |         |         |
  0+40       0.1837      0.50  |q Q      |         |         |         |
  0+45       0.1888      0.52  |q Q      |         |         |         |
  0+50       0.1979      0.55  |q Q      |         |         |         |
  0+55       0.2232      0.61  |q Q      |         |         |         |
  1+ 0       0.2433      0.66  |q Q      |         |         |         |
  1+ 5       0.2465      0.66  |q  Q     |         |         |         |
  1+10       0.2295      0.62  |q Q      |         |         |         |
  1+15       0.2147      0.60  |q Q      |         |         |         |
  1+20       0.2101      0.59  |q Q      |         |         |         |
  1+25       0.2078      0.59  |q Q      |         |         |         |
  1+30       0.2062      0.59  |q Q      |         |         |         |
  1+35       0.2050      0.59  |q Q      |         |         |         |
  1+40       0.2043      0.59  |q Q      |         |         |         |
  1+45       0.2036      0.59  |q Q      |         |         |         |
  1+50       0.2086      0.61  |q Q      |         |         |         |
  1+55       0.2309      0.66  |q  Q     |         |         |         |
  2+ 0       0.2484      0.70  |q  Q     |         |         |         |
  2+ 5       0.2550      0.72  |q  Q     |         |         |         |
  2+10       0.2587      0.73  |q  Q     |         |         |         |
  2+15       0.2615      0.74  |q  Q     |         |         |         |
  2+20       0.2635      0.74  |q  Q     |         |         |         |
  2+25       0.2649      0.75  |q  Q     |         |         |         |
  2+30       0.2661      0.75  |q  Q     |         |         |         |
```

2+35	0.2724	0.77	q Q			
2+40	0.2956	0.83	q Q			
2+45	0.3140	0.87	q Q			
2+50	0.3214	0.88	q Q			
2+55	0.3259	0.89	q Q			
3+ 0	0.3287	0.90	q Q			
3+ 5	0.3307	0.90	q Q			
3+10	0.3321	0.91	q Q			
3+15	0.3333	0.91	q Q			
3+20	0.3341	0.91	q Q			
3+25	0.3348	0.92	q Q			
3+30	0.3353	0.92	q Q			
3+35	0.3357	0.92	q Q			
3+40	0.3360	0.92	q Q			
3+45	0.3360	0.92	q Q			
3+50	0.3415	0.94	q Q			
3+55	0.3641	1.00	q Q			
4+ 0	0.3820	1.03	q Q			
4+ 5	0.3890	1.05	q Q			
4+10	0.3931	1.06	q Q			
4+15	0.3959	1.07	q Q			
4+20	0.4034	1.09	q Q			
4+25	0.4273	1.15	q Q			
4+30	0.4465	1.19	q Q			
4+35	0.4543	1.20	q Q			
4+40	0.4591	1.21	q Q			
4+45	0.4624	1.22	q Q			
4+50	0.4702	1.24	q Q			
4+55	0.4945	1.30	q Q			
5+ 0	0.5137	1.34	q Q			
5+ 5	0.5107	1.33	q Q			
5+10	0.4703	1.23	q Q			
5+15	0.4376	1.17	q Q			
5+20	0.4314	1.16	q Q			
5+25	0.4475	1.21	q Q			
5+30	0.4611	1.24	q Q			
5+35	0.4704	1.26	q Q			
5+40	0.4950	1.32	q Q			
5+45	0.5139	1.36	q Q			
5+50	0.5216	1.38	q Q			
5+55	0.5261	1.39	q Q			
6+ 0	0.5291	1.40	q Q			
6+ 5	0.5366	1.42	q Q			
6+10	0.5605	1.48	q Q			
6+15	0.5801	1.52	q Q			
6+20	0.5884	1.54	q Q			
6+25	0.5935	1.55	q Q			
6+30	0.5968	1.56	q Q			
6+35	0.6046	1.58	q Q			
6+40	0.6290	1.64	q Q			
6+45	0.6481	1.68	q Q			
6+50	0.6560	1.70	q Q			
6+55	0.6607	1.71	q Q			
7+ 0	0.6640	1.72	q Q			

7+ 5	0.6664	1.73	
7+10	0.6682	1.74	
7+15	0.6693	1.74	
7+20	0.6756	1.76	
7+25	0.6988	1.82	
7+30	0.7173	1.86	
7+35	0.7301	1.89	
7+40	0.7572	1.96	
7+45	0.7780	2.00	
7+50	0.7924	2.04	
7+55	0.8205	2.11	
8+ 0	0.8424	2.16	
8+ 5	0.8631	2.21	
8+10	0.9145	2.34	
8+15	0.9548	2.42	
8+20	0.9721	2.45	
8+25	0.9827	2.48	
8+30	0.9900	2.50	
8+35	1.0006	2.52	
8+40	1.0270	2.59	
8+45	1.0478	2.63	
8+50	1.0624	2.67	
8+55	1.0907	2.74	
9+ 0	1.1125	2.78	
9+ 5	1.1331	2.83	
9+10	1.1845	2.96	
9+15	1.2245	3.04	
9+20	1.2467	3.09	
9+25	1.2796	3.17	
9+30	1.3048	3.22	
9+35	1.3225	3.26	
9+40	1.3530	3.34	
9+45	1.3765	3.38	
9+50	1.3931	3.42	
9+55	1.4229	3.50	
10+ 0	1.4457	3.54	
10+ 5	1.4183	3.46	
10+10	1.2673	3.09	
10+15	1.1458	2.86	
10+20	1.1001	2.77	
10+25	1.0737	2.73	
10+30	1.0558	2.72	
10+35	1.0703	2.79	
10+40	1.1744	3.08	
10+45	1.2567	3.27	
10+50	1.2860	3.36	
10+55	1.3024	3.42	
11+ 0	1.3131	3.48	
11+ 5	1.3148	3.51	
11+10	1.2965	3.49	
11+15	1.2843	3.50	
11+20	1.2817	3.52	
11+25	1.2808	3.55	
11+30	1.2804	3.57	

```
11+35      1.2695     3.57  |      q  |          |Q        |          |
11+40      1.2249     3.48  |      q  |          |Q        |          |
11+45      1.1878     3.44  |      q  |          Q         |          |
11+50      1.1784     3.45  |      q  |          |Q        |          |
11+55      1.1920     3.51  |      q  |          |Q        |          |
12+ 0      1.2040     3.56  |      q  |          |Q        |          |
12+ 5      1.2446     3.70  |      q  |          | Q       |          |
12+10      1.4036     4.12  |       q |          |    Q    |          |
12+15      1.5299     4.40  |        q|          |     Q   |          |
12+20      1.5846     4.55  |        q|          |      Q  |          |
12+25      1.6361     4.70  |        q|          |       Q |          |
12+30      1.6738     4.81  |         q          |        Q|          |
12+35      1.7057     4.92  |         q          |        Q|          |
12+40      1.7646     5.10  |         q          |         |Q         |
12+45      1.8119     5.23  |         |q         |         |Q         |
12+50      1.8398     5.33  |         |q         |         | Q        |
12+55      1.8770     5.45  |         |q         |         |  Q       |
13+ 0      1.9050     5.55  |         |q         |         |  Q       |
13+ 5      1.9468     5.69  |         |q         |         |   Q      |
13+10      2.0699     6.03  |         | q        |         |     Q    |
13+15      2.1654     6.26  |         |  q       |         |       Q  |
13+20      2.2045     6.39  |         |  q       |         |       Q  |
13+25      2.2281     6.48  |         |  q       |         |        Q|
13+30      2.2442     6.56  |         |  q       |         |         Q
13+35      2.1960     6.47  |         |  q       |         |        Q|
13+40      1.9561     5.91  |         |q         |         |     Q    |
13+45      1.7646     5.57  |         q          |         |  Q       |
13+50      1.6924     5.46  |         q          |         |  Q       |
13+55      1.6507     5.41  |         q          |         | Q        |
14+ 0      1.6224     5.38  |        q|          |         | Q        |
14+ 5      1.6242     5.42  |        q|          |         |  Q       |
14+10      1.7010     5.65  |         q          |         |   Q      |
14+15      1.7603     5.80  |         q          |         |    Q     |
14+20      1.7733     5.85  |         q          |         |    Q     |
14+25      1.7600     5.85  |         q          |         |    Q     |
14+30      1.7480     5.86  |         q          |         |    Q     |
14+35      1.7446     5.89  |         q          |         |    Q     |
14+40      1.7418     5.92  |         q          |         |     Q    |
14+45      1.7437     5.95  |         q          |         |     Q    |
14+50      1.7397     5.97  |         q          |         |     Q    |
14+55      1.7183     5.95  |         q          |         |     Q    |
15+ 0      1.7011     5.94  |         q          |         |     Q    |
15+ 5      1.6894     5.94  |         q          |         |     Q    |
15+10      1.6636     5.90  |         q          |         |    Q     |
15+15      1.6423     5.88  |         q          |         |    Q     |
15+20      1.6275     5.86  |        q|          |         |    Q     |
15+25      1.5990     5.81  |        q|          |         |    Q     |
15+30      1.5771     5.78  |        q|          |         |    Q     |
15+35      1.5455     5.71  |        q|          |         |   Q      |
15+40      1.4491     5.49  |       q |          |         |  Q       |
15+45      1.3727     5.35  |       q |          |         | Q        |
15+50      1.3415     5.30  |       q |          |         | Q        |
15+55      1.3226     5.28  |       q |          |         | Q        |
16+ 0      1.3098     5.26  |      q  |          |         | Q        |
```

```
16+ 5      1.2190     5.03  |      q  |         |         Q         |
16+10      0.8738     4.18  |    q    |         |    Q    |         |
16+15      0.5989     3.65  |  q      |         | Q       |         |
16+20      0.4902     3.43  | q       |         Q         |         |
16+25      0.4254     3.30  | q       |         Q         |         |
16+30      0.3817     3.21  | q       |        Q|         |         |
16+35      0.3448     3.13  | q       |        Q|         |         |
16+40      0.2997     3.03  |q        |       Q |         |         |
16+45      0.2644     2.95  |q        |      Q  |         |         |
16+50      0.2445     2.91  |q        |      Q  |         |         |
16+55      0.2305     2.87  |q        |      Q  |         |         |
17+ 0      0.2207     2.85  |q        |      Q  |         |         |
17+ 5      0.2236     2.87  |q        |      Q  |         |         |
17+10      0.2616     2.96  |q        |       Q |         |         |
17+15      0.2964     3.02  |q        |       Q |         |         |
17+20      0.3095     3.04  |q        |       Q |         |         |
17+25      0.3171     3.05  |q        |       Q |         |         |
17+30      0.3222     3.06  |q        |       Q |         |         |
17+35      0.3258     3.06  |q        |       Q |         |         |
17+40      0.3282     3.06  | q       |       Q |         |         |
17+45      0.3305     3.06  | q       |       Q |         |         |
17+50      0.3268     3.04  |q        |       Q |         |         |
17+55      0.3055     2.98  |q        |       Q |         |         |
18+ 0      0.2885     2.94  |q        |      Q  |         |         |
18+ 5      0.2823     2.92  |q        |      Q  |         |         |
18+10      0.2789     2.90  |q        |      Q  |         |         |
18+15      0.2762     2.88  |q        |      Q  |         |         |
18+20      0.2742     2.87  |q        |      Q  |         |         |
18+25      0.2728     2.85  |q        |      Q  |         |         |
18+30      0.2716     2.84  |q        |      Q  |         |         |
18+35      0.2653     2.82  |q        |      Q  |         |         |
18+40      0.2421     2.75  |q        |     Q   |         |         |
18+45      0.2236     2.70  |q        |     Q   |         |         |
18+50      0.2108     2.66  |q        |     Q   |         |         |
18+55      0.1837     2.58  |q        |    Q    |         |         |
19+ 0      0.1630     2.53  q         |    Q    |         |         |
19+ 5      0.1594     2.51  q         |    Q    |         |         |
19+10      0.1765     2.55  |q        |    Q    |         |         |
19+15      0.1905     2.56  |q        |    Q    |         |         |
19+20      0.2001     2.57  |q        |    Q    |         |         |
19+25      0.2247     2.62  |q        |    Q    |         |         |
19+30      0.2439     2.65  |q        |     Q   |         |         |
19+35      0.2461     2.64  |q        |     Q   |         |         |
19+40      0.2280     2.59  |q        |    Q    |         |         |
19+45      0.2135     2.55  |q        |    Q    |         |         |
19+50      0.2036     2.51  |q        |    Q    |         |         |
19+55      0.1785     2.44  |q        |   Q     |         |         |
20+ 0      0.1594     2.39  q         |   Q     |         |         |
20+ 5      0.1571     2.38  q         |   Q     |         |         |
20+10      0.1752     2.41  |q        |   Q     |         |         |
20+15      0.1897     2.43  |q        |   Q     |         |         |
20+20      0.1943     2.43  |q        |   Q     |         |         |
20+25      0.1967     2.42  |q        |   Q     |         |         |
20+30      0.1979     2.42  |q        |   Q     |         |         |
```

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20+35      0.1986     2.41  |q        |   Q     |         |         |
20+40      0.1990     2.40  |q        |   Q     |         |         |
20+45      0.1996     2.39  |q        |   Q     |         |         |
20+50      0.1947     2.37  |q        |   Q     |         |         |
20+55      0.1724     2.30  |q        |   Q     |         |         |
21+ 0      0.1549     2.26  q         |  Q      |         |         |
21+ 5      0.1537     2.25  q         |  Q      |         |         |
21+10      0.1725     2.29  |q        |  Q      |         |         |
21+15      0.1877     2.31  |q        |   Q     |         |         |
21+20      0.1873     2.29  |q        |  Q      |         |         |
21+25      0.1674     2.23  |q        |  Q      |         |         |
21+30      0.1511     2.19  q         |  Q      |         |         |
21+35      0.1507     2.18  q         |  Q      |         |         |
21+40      0.1699     2.22  |q        |  Q      |         |         |
21+45      0.1857     2.24  |q        |  Q      |         |         |
21+50      0.1858     2.23  |q        |  Q      |         |         |
21+55      0.1662     2.17  |q        |  Q      |         |         |
22+ 0      0.1503     2.13  q         | Q       |         |         |
22+ 5      0.1503     2.12  q         | Q       |         |         |
22+10      0.1699     2.16  |q        |  Q      |         |         |
22+15      0.1857     2.19  |q        |  Q      |         |         |
22+20      0.1858     2.17  |q        |  Q      |         |         |
22+25      0.1662     2.11  |q        | Q       |         |         |
22+30      0.1503     2.07  q         | Q       |         |         |
22+35      0.1448     2.05  q         | Q       |         |         |
22+40      0.1418     2.04  q         | Q       |         |         |
22+45      0.1397     2.02  q         | Q       |         |         |
22+50      0.1382     2.01  q         | Q       |         |         |
22+55      0.1371     2.00  q         | Q       |         |         |
23+ 0      0.1364     1.99  q         | Q       |         |         |
23+ 5      0.1359     1.98  q         | Q       |         |         |
23+10      0.1357     1.97  q         |Q        |         |         |
23+15      0.1352     1.96  q         |Q        |         |         |
23+20      0.1348     1.95  q         |Q        |         |         |
23+25      0.1344     1.94  q         |Q        |         |         |
23+30      0.1344     1.93  q         |Q        |         |         |
23+35      0.1344     1.92  q         |Q        |         |         |
23+40      0.1344     1.91  q         |Q        |         |         |
23+45      0.1344     1.90  q         |Q        |         |         |
23+50      0.1344     1.89  q         |Q        |         |         |
23+55      0.1344     1.88  q         |Q        |         |         |
24+ 0      0.1344     1.87  q         |Q        |         |         |
24+ 5      0.1235     1.84  q         |Q        |         |         |
24+10      0.0784     1.71  q         Q         |         |         |
24+15      0.0424     1.63  q        Q|         |         |         |
24+20      0.0285     1.59  q        Q|         |         |         |
24+25      0.0202     1.57  q        Q|         |         |         |
24+30      0.0146     1.54  q        Q|         |         |         |
24+35      0.0106     1.52  q        Q|         |         |         |
24+40      0.0079     1.51  q        Q|         |         |         |
24+45      0.0055     1.49  q        Q|         |         |         |
24+50      0.0038     1.48  q       Q |         |         |         |
24+55      0.0025     1.46  q       Q |         |         |         |
25+ 0      0.0016     1.45  q       Q |         |         |         |
```

25+ 5	0.0008	1.44	q	Q				
25+10	0.0000	1.43	q	Q				
25+15	0.0000	1.42	q	Q				
25+20	0.0000	1.40	q	Q				
25+25	0.0000	1.39	q	Q				
25+30	0.0000	1.38	q	Q				
25+35	0.0000	1.37	q	Q				
25+40	0.0000	1.36	q	Q				
25+45	0.0000	1.35	q	Q				
25+50	0.0000	1.34	q	Q				
25+55	0.0000	1.33	q	Q				
26+ 0	0.0000	1.32	q	Q				
26+ 5	0.0000	1.31	q	Q				
26+10	0.0000	1.30	q	Q				
26+15	0.0000	1.29	q	Q				
26+20	0.0000	1.28	q	Q				
26+25	0.0000	1.27	q	Q				
26+30	0.0000	1.26	q	Q				
26+35	0.0000	1.25	q	Q				
26+40	0.0000	1.24	q	Q				
26+45	0.0000	1.23	q	Q				
26+50	0.0000	1.22	q	Q				
26+55	0.0000	1.21	q	Q				
27+ 0	0.0000	1.20	q	Q				
27+ 5	0.0000	1.19	q	Q				
27+10	0.0000	1.18	q	Q				
27+15	0.0000	1.17	q	Q				
27+20	0.0000	1.16	q	Q				
27+25	0.0000	1.15	q	Q				
27+30	0.0000	1.15	q	Q				
27+35	0.0000	1.14	q	Q				
27+40	0.0000	1.13	q	Q				
27+45	0.0000	1.12	q	Q				
27+50	0.0000	1.11	q	Q				
27+55	0.0000	1.10	q	Q				
28+ 0	0.0000	1.09	q	Q				
28+ 5	0.0000	1.08	q	Q				
28+10	0.0000	1.08	q	Q				
28+15	0.0000	1.07	q	Q				
28+20	0.0000	1.06	q	Q				
28+25	0.0000	1.05	q	Q				
28+30	0.0000	1.04	q	Q				
28+35	0.0000	1.04	q	Q				
28+40	0.0000	1.03	q	Q				
28+45	0.0000	1.02	q	Q				
28+50	0.0000	1.01	q	Q				
28+55	0.0000	1.00	q	Q				
29+ 0	0.0000	1.00	q	Q				
29+ 5	0.0000	0.99	q	Q				
29+10	0.0000	0.98	q	Q				
29+15	0.0000	0.97	q	Q				
29+20	0.0000	0.96	q	Q				
29+25	0.0000	0.96	q	Q				
29+30	0.0000	0.95	q	Q				

29+35	0.0000	0.94	q	Q				
29+40	0.0000	0.94	q	Q				
29+45	0.0000	0.93	q	Q				
29+50	0.0000	0.92	q	Q				
29+55	0.0000	0.91	q	Q				
30+ 0	0.0000	0.91	q	Q				
30+ 5	0.0000	0.90	q	Q				
30+10	0.0000	0.89	q	Q				
30+15	0.0000	0.89	q	Q				
30+20	0.0000	0.88	q	Q				
30+25	0.0000	0.87	q	Q				
30+30	0.0000	0.87	q	Q				
30+35	0.0000	0.86	q	Q				
30+40	0.0000	0.85	q	Q				
30+45	0.0000	0.85	q	Q				
30+50	0.0000	0.84	q	Q				
30+55	0.0000	0.83	q	Q				
31+ 0	0.0000	0.83	q	Q				
31+ 5	0.0000	0.82	q	Q				
31+10	0.0000	0.81	q	Q				
31+15	0.0000	0.81	q	Q				
31+20	0.0000	0.80	q	Q				
31+25	0.0000	0.79	q	Q				
31+30	0.0000	0.79	q	Q				
31+35	0.0000	0.78	q	Q				
31+40	0.0000	0.78	q	Q				
31+45	0.0000	0.77	q	Q				
31+50	0.0000	0.76	q	Q				
31+55	0.0000	0.76	q	Q				
32+ 0	0.0000	0.75	q	Q				
32+ 5	0.0000	0.75	q	Q				
32+10	0.0000	0.74	q	Q				
32+15	0.0000	0.74	q	Q				
32+20	0.0000	0.73	q	Q				
32+25	0.0000	0.72	q	Q				
32+30	0.0000	0.72	q	Q				
32+35	0.0000	0.71	q	Q				
32+40	0.0000	0.71	q	Q				
32+45	0.0000	0.70	q	Q				
32+50	0.0000	0.70	q	Q				
32+55	0.0000	0.69	q	Q				
33+ 0	0.0000	0.69	q	Q				
33+ 5	0.0000	0.68	q	Q				
33+10	0.0000	0.68	q	Q				
33+15	0.0000	0.67	q	Q				
33+20	0.0000	0.67	q	Q				
33+25	0.0000	0.66	q	Q				
33+30	0.0000	0.66	q	Q				
33+35	0.0000	0.65	q	Q				
33+40	0.0000	0.65	q	Q				
33+45	0.0000	0.64	q	Q				
33+50	0.0000	0.64	q	Q				
33+55	0.0000	0.63	q	Q				
34+ 0	0.0000	0.63	q	Q				

34+ 5	0.0000	0.62	q	Q				
34+10	0.0000	0.62	q	Q				
34+15	0.0000	0.61	q	Q				
34+20	0.0000	0.61	q	Q				
34+25	0.0000	0.60	q	Q				
34+30	0.0000	0.60	q	Q				
34+35	0.0000	0.59	q	Q				
34+40	0.0000	0.59	q	Q				
34+45	0.0000	0.58	q	Q				
34+50	0.0000	0.58	q	Q				
34+55	0.0000	0.58	q	Q				
35+ 0	0.0000	0.57	q	Q				
35+ 5	0.0000	0.57	q	Q				
35+10	0.0000	0.56	q	Q				
35+15	0.0000	0.56	q	Q				
35+20	0.0000	0.55	q	Q				
35+25	0.0000	0.55	q	Q				
35+30	0.0000	0.54	q	Q				
35+35	0.0000	0.54	q	Q				
35+40	0.0000	0.54	q	Q				
35+45	0.0000	0.53	q	Q				
35+50	0.0000	0.53	q	Q				
35+55	0.0000	0.52	q	Q				
36+ 0	0.0000	0.52	q	Q				
36+ 5	0.0000	0.52	q	Q				
36+10	0.0000	0.51	q	Q				
36+15	0.0000	0.51	q	Q				
36+20	0.0000	0.50	q	Q				
36+25	0.0000	0.50	q	Q				
36+30	0.0000	0.50	q	Q				
36+35	0.0000	0.49	q	Q				
36+40	0.0000	0.49	q	Q				
36+45	0.0000	0.49	q	Q				
36+50	0.0000	0.48	q	Q				
36+55	0.0000	0.48	q	Q				
37+ 0	0.0000	0.47	q	Q				
37+ 5	0.0000	0.47	q	Q				
37+10	0.0000	0.47	q	Q				
37+15	0.0000	0.46	q	Q				
37+20	0.0000	0.46	q	Q				
37+25	0.0000	0.46	q	Q				
37+30	0.0000	0.45	q	Q				
37+35	0.0000	0.45	q	Q				
37+40	0.0000	0.45	q	Q				
37+45	0.0000	0.44	q	Q				
37+50	0.0000	0.44	q	Q				
37+55	0.0000	0.44	q	Q				
38+ 0	0.0000	0.43	q	Q				
38+ 5	0.0000	0.43	q	Q				
38+10	0.0000	0.43	q	Q				
38+15	0.0000	0.43	q	Q				
38+20	0.0000	0.43	q	Q				
38+25	0.0000	0.43	q	Q				
38+30	0.0000	0.43	q	Q				

38+35	0.0000	0.43	q Q				
38+40	0.0000	0.43	q Q				
38+45	0.0000	0.43	q Q				
38+50	0.0000	0.43	q Q				
38+55	0.0000	0.43	q Q				
39+ 0	0.0000	0.43	q Q				
39+ 5	0.0000	0.43	q Q				
39+10	0.0000	0.43	q Q				
39+15	0.0000	0.43	q Q				
39+20	0.0000	0.42	q Q				
39+25	0.0000	0.42	q Q				
39+30	0.0000	0.42	q Q				
39+35	0.0000	0.42	q Q				
39+40	0.0000	0.42	q Q				
39+45	0.0000	0.42	q Q				
39+50	0.0000	0.42	q Q				
39+55	0.0000	0.42	q Q				
40+ 0	0.0000	0.42	q Q				
40+ 5	0.0000	0.42	q Q				
40+10	0.0000	0.42	q Q				
40+15	0.0000	0.42	q Q				
40+20	0.0000	0.42	q Q				
40+25	0.0000	0.42	q Q				
40+30	0.0000	0.42	q Q				
40+35	0.0000	0.42	q Q				
40+40	0.0000	0.42	q Q				
40+45	0.0000	0.42	q Q				
40+50	0.0000	0.42	q Q				
40+55	0.0000	0.42	q Q				
41+ 0	0.0000	0.42	q Q				
41+ 5	0.0000	0.42	q Q				
41+10	0.0000	0.42	q Q				
41+15	0.0000	0.42	q Q				
41+20	0.0000	0.42	q Q				
41+25	0.0000	0.42	q Q				
41+30	0.0000	0.42	q Q				
41+35	0.0000	0.42	q Q				
41+40	0.0000	0.42	q Q				
41+45	0.0000	0.41	q Q				
41+50	0.0000	0.41	q Q				
41+55	0.0000	0.41	q Q				
42+ 0	0.0000	0.41	q Q				
42+ 5	0.0000	0.41	q Q				
42+10	0.0000	0.41	q Q				
42+15	0.0000	0.41	q Q				
42+20	0.0000	0.41	q Q				
42+25	0.0000	0.41	q Q				
42+30	0.0000	0.41	q Q				
42+35	0.0000	0.41	q Q				
42+40	0.0000	0.41	q Q				
42+45	0.0000	0.41	q Q				
42+50	0.0000	0.41	q Q				
42+55	0.0000	0.41	q Q				
43+ 0	0.0000	0.41	q Q				

43+ 5	0.0000	0.41	q Q				
43+10	0.0000	0.41	q Q				
43+15	0.0000	0.41	q Q				
43+20	0.0000	0.41	q Q				
43+25	0.0000	0.41	q Q				
43+30	0.0000	0.41	q Q				
43+35	0.0000	0.41	q Q				
43+40	0.0000	0.41	q Q				
43+45	0.0000	0.41	q Q				
43+50	0.0000	0.41	q Q				
43+55	0.0000	0.41	q Q				
44+ 0	0.0000	0.41	q Q				
44+ 5	0.0000	0.41	q Q				
44+10	0.0000	0.41	q Q				
44+15	0.0000	0.40	q Q				
44+20	0.0000	0.40	q Q				
44+25	0.0000	0.40	q Q				
44+30	0.0000	0.40	q Q				
44+35	0.0000	0.40	q Q				
44+40	0.0000	0.40	q Q				
44+45	0.0000	0.40	q Q				
44+50	0.0000	0.40	q Q				
44+55	0.0000	0.40	q Q				
45+ 0	0.0000	0.40	q Q				
45+ 5	0.0000	0.40	q Q				
45+10	0.0000	0.40	q Q				
45+15	0.0000	0.40	q Q				
45+20	0.0000	0.40	q Q				
45+25	0.0000	0.40	q Q				
45+30	0.0000	0.40	q Q				
45+35	0.0000	0.40	q Q				
45+40	0.0000	0.40	q Q				
45+45	0.0000	0.40	q Q				
45+50	0.0000	0.40	q Q				
45+55	0.0000	0.40	q Q				
46+ 0	0.0000	0.40	q Q				
46+ 5	0.0000	0.40	q Q				
46+10	0.0000	0.40	q Q				
46+15	0.0000	0.40	q Q				
46+20	0.0000	0.40	q Q				
46+25	0.0000	0.40	q Q				
46+30	0.0000	0.40	q Q				
46+35	0.0000	0.40	q Q				
46+40	0.0000	0.40	q Q				
46+45	0.0000	0.40	q Q				
46+50	0.0000	0.39	q Q				
46+55	0.0000	0.39	q Q				
47+ 0	0.0000	0.39	q Q				
47+ 5	0.0000	0.39	q Q				
47+10	0.0000	0.39	q Q				
47+15	0.0000	0.39	q Q				
47+20	0.0000	0.39	q Q				
47+25	0.0000	0.39	q Q				
47+30	0.0000	0.39	q Q				

47+35	0.0000	0.39	q Q				
47+40	0.0000	0.39	q Q				
47+45	0.0000	0.39	q Q				
47+50	0.0000	0.39	q Q				
47+55	0.0000	0.39	q Q				
48+ 0	0.0000	0.39	q Q				
48+ 5	0.0000	0.39	q Q				
48+10	0.0000	0.39	q Q				
48+15	0.0000	0.39	q Q				
48+20	0.0000	0.39	q Q				
48+25	0.0000	0.39	q Q				
48+30	0.0000	0.39	q Q				
48+35	0.0000	0.39	q Q				
48+40	0.0000	0.39	q Q				
48+45	0.0000	0.39	q Q				
48+50	0.0000	0.39	q Q				
48+55	0.0000	0.39	q Q				
49+ 0	0.0000	0.39	q Q				
49+ 5	0.0000	0.39	q Q				
49+10	0.0000	0.39	q Q				
49+15	0.0000	0.39	q Q				
49+20	0.0000	0.39	q Q				
49+25	0.0000	0.39	q Q				
49+30	0.0000	0.38	q Q				
49+35	0.0000	0.38	q Q				
49+40	0.0000	0.38	q Q				
49+45	0.0000	0.38	q Q				
49+50	0.0000	0.38	q Q				
49+55	0.0000	0.38	q Q				
50+ 0	0.0000	0.38	q Q				
50+ 5	0.0000	0.38	q Q				
50+10	0.0000	0.38	q Q				
50+15	0.0000	0.38	q Q				
50+20	0.0000	0.38	q Q				
50+25	0.0000	0.38	q Q				
50+30	0.0000	0.38	q Q				
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50+40	0.0000	0.38	q Q				
50+45	0.0000	0.38	q Q				
50+50	0.0000	0.38	q Q				
50+55	0.0000	0.38	q Q				
51+ 0	0.0000	0.38	q Q				
51+ 5	0.0000	0.38	q Q				
51+10	0.0000	0.38	q Q				
51+15	0.0000	0.38	q Q				
51+20	0.0000	0.38	q Q				
51+25	0.0000	0.38	q Q				
51+30	0.0000	0.38	q Q				
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51+40	0.0000	0.38	q Q				
51+45	0.0000	0.38	q Q				
51+50	0.0000	0.38	q Q				
51+55	0.0000	0.38	q Q				
52+ 0	0.0000	0.38	q Q				

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52+10	0.0000	0.37	q Q				
52+15	0.0000	0.37	q Q				
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52+30	0.0000	0.37	q Q				
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52+40	0.0000	0.37	q Q				
52+45	0.0000	0.37	q Q				
52+50	0.0000	0.37	q Q				
52+55	0.0000	0.37	q Q				
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53+45	0.0000	0.37	q Q				
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53+55	0.0000	0.37	q Q				
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56+55	0.0000	0.35	q Q				
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66+55	0.0000	0.30	qQ				
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68+55	0.0000	0.29	qQ				
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69+45	0.0000	0.28	qQ				
69+50	0.0000	0.28	qQ				
69+55	0.0000	0.28	qQ				
70+ 0	0.0000	0.28	qQ				

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70+45	0.0000	0.28	qQ				
70+50	0.0000	0.28	qQ				
70+55	0.0000	0.28	qQ				
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71+15	0.0000	0.28	qQ				
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73+55	0.0000	0.26	qQ				
74+ 0	0.0000	0.26	qQ				
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75+55	0.0000	0.26	qQ				
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77+55	0.0000	0.25	qQ				
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78+55	0.0000	0.24	qQ				
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79+55	0.0000	0.24	qQ				
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80+ 5	0.0000	0.24	qQ				
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80+55	0.0000	0.23	qQ				
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81+ 5	0.0000	0.23	qQ				
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82+55	0.0000	0.23	qQ				
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83+55	0.0000	0.22	qQ				
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84+50	0.0000	0.22	qQ				
84+55	0.0000	0.22	qQ				
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85+ 5	0.0000	0.22	qQ				
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85+40	0.0000	0.21	qQ				
85+45	0.0000	0.21	qQ				
85+50	0.0000	0.21	qQ				
85+55	0.0000	0.21	qQ				
86+ 0	0.0000	0.21	qQ				
86+ 5	0.0000	0.21	qQ				
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86+50	0.0000	0.21	qQ				
86+55	0.0000	0.21	qQ				
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87+45	0.0000	0.21	qQ				
87+50	0.0000	0.21	qQ				
87+55	0.0000	0.21	qQ				
88+ 0	0.0000	0.21	qQ				

88+ 5	0.0000	0.21	qQ				
88+10	0.0000	0.21	qQ				
88+15	0.0000	0.21	qQ				
88+20	0.0000	0.21	qQ				
88+25	0.0000	0.20	qQ				
88+30	0.0000	0.20	qQ				
88+35	0.0000	0.20	qQ				
88+40	0.0000	0.20	qQ				
88+45	0.0000	0.20	qQ				
88+50	0.0000	0.20	qQ				
88+55	0.0000	0.20	qQ				
89+ 0	0.0000	0.20	qQ				
89+ 5	0.0000	0.20	qQ				
89+10	0.0000	0.20	qQ				
89+15	0.0000	0.20	qQ				
89+20	0.0000	0.20	qQ				
89+25	0.0000	0.20	qQ				
89+30	0.0000	0.20	qQ				
89+35	0.0000	0.20	qQ				
89+40	0.0000	0.20	qQ				
89+45	0.0000	0.20	qQ				
89+50	0.0000	0.20	qQ				
89+55	0.0000	0.20	qQ				
90+ 0	0.0000	0.20	qQ				
90+ 5	0.0000	0.20	qQ				
90+10	0.0000	0.20	qQ				
90+15	0.0000	0.20	qQ				
90+20	0.0000	0.20	qQ				
90+25	0.0000	0.20	qQ				
90+30	0.0000	0.20	qQ				
90+35	0.0000	0.20	qQ				
90+40	0.0000	0.20	qQ				
90+45	0.0000	0.20	qQ				
90+50	0.0000	0.20	qQ				
90+55	0.0000	0.20	qQ				
91+ 0	0.0000	0.20	qQ				
91+ 5	0.0000	0.20	qQ				
91+10	0.0000	0.20	qQ				
91+15	0.0000	0.19	qQ				
91+20	0.0000	0.19	qQ				
91+25	0.0000	0.19	qQ				
91+30	0.0000	0.19	qQ				
91+35	0.0000	0.19	qQ				
91+40	0.0000	0.19	qQ				
91+45	0.0000	0.19	qQ				
91+50	0.0000	0.19	qQ				
91+55	0.0000	0.19	qQ				
92+ 0	0.0000	0.19	qQ				
92+ 5	0.0000	0.19	qQ				
92+10	0.0000	0.19	qQ				
92+15	0.0000	0.19	qQ				
92+20	0.0000	0.19	qQ				
92+25	0.0000	0.19	qQ				
92+30	0.0000	0.19	qQ				

92+35	0.0000	0.19	qQ				
92+40	0.0000	0.19	qQ				
92+45	0.0000	0.19	qQ				
92+50	0.0000	0.19	qQ				
92+55	0.0000	0.19	qQ				
93+ 0	0.0000	0.19	qQ				
93+ 5	0.0000	0.19	qQ				
93+10	0.0000	0.19	qQ				
93+15	0.0000	0.19	qQ				
93+20	0.0000	0.19	qQ				
93+25	0.0000	0.19	qQ				
93+30	0.0000	0.19	qQ				
93+35	0.0000	0.19	qQ				
93+40	0.0000	0.19	qQ				
93+45	0.0000	0.19	qQ				
93+50	0.0000	0.19	qQ				
93+55	0.0000	0.19	qQ				
94+ 0	0.0000	0.19	qQ				
94+ 5	0.0000	0.19	qQ				
94+10	0.0000	0.19	qQ				
94+15	0.0000	0.18	qQ				
94+20	0.0000	0.18	qQ				
94+25	0.0000	0.18	qQ				
94+30	0.0000	0.18	qQ				
94+35	0.0000	0.18	qQ				
94+40	0.0000	0.18	qQ				
94+45	0.0000	0.18	qQ				
94+50	0.0000	0.18	qQ				
94+55	0.0000	0.18	qQ				
95+ 0	0.0000	0.18	qQ				
95+ 5	0.0000	0.18	qQ				
95+10	0.0000	0.18	qQ				
95+15	0.0000	0.18	qQ				
95+20	0.0000	0.18	qQ				
95+25	0.0000	0.18	qQ				
95+30	0.0000	0.18	qQ				
95+35	0.0000	0.18	qQ				
95+40	0.0000	0.18	qQ				
95+45	0.0000	0.18	qQ				
95+50	0.0000	0.18	qQ				
95+55	0.0000	0.18	qQ				
96+ 0	0.0000	0.18	qQ				
96+ 5	0.0000	0.18	qQ				
96+10	0.0000	0.18	qQ				
96+15	0.0000	0.18	qQ				
96+20	0.0000	0.18	qQ				
96+25	0.0000	0.17	qQ				
96+30	0.0000	0.17	qQ				
96+35	0.0000	0.17	qQ				
96+40	0.0000	0.17	qQ				
96+45	0.0000	0.17	qQ				
96+50	0.0000	0.17	qQ				
96+55	0.0000	0.17	qQ				
97+ 0	0.0000	0.17	qQ				

97+ 5	0.0000	0.17	qQ				
97+10	0.0000	0.17	qQ				
97+15	0.0000	0.17	qQ				
97+20	0.0000	0.17	qQ				
97+25	0.0000	0.17	qQ				
97+30	0.0000	0.17	qQ				
97+35	0.0000	0.17	qQ				
97+40	0.0000	0.17	qQ				
97+45	0.0000	0.16	qQ				
97+50	0.0000	0.16	qQ				
97+55	0.0000	0.16	Q				
98+ 0	0.0000	0.16	Q				
98+ 5	0.0000	0.16	Q				
98+10	0.0000	0.16	Q				
98+15	0.0000	0.16	Q				
98+20	0.0000	0.16	Q				
98+25	0.0000	0.16	Q				
98+30	0.0000	0.16	Q				
98+35	0.0000	0.16	Q				
98+40	0.0000	0.16	Q				
98+45	0.0000	0.16	Q				
98+50	0.0000	0.16	Q				
98+55	0.0000	0.16	Q				
99+ 0	0.0000	0.16	Q				
99+ 5	0.0000	0.16	Q				
99+10	0.0000	0.16	Q				
99+15	0.0000	0.15	Q				
99+20	0.0000	0.15	Q				
99+25	0.0000	0.15	Q				
99+30	0.0000	0.15	Q				
99+35	0.0000	0.15	Q				
99+40	0.0000	0.15	Q				
99+45	0.0000	0.15	Q				
99+50	0.0000	0.15	Q				
99+55	0.0000	0.15	Q				
100+ 0	0.0000	0.15	Q				
100+ 5	0.0000	0.15	Q				
100+10	0.0000	0.15	Q				
100+15	0.0000	0.15	Q				
100+20	0.0000	0.15	Q				
100+25	0.0000	0.15	Q				
100+30	0.0000	0.15	Q				
100+35	0.0000	0.15	Q				
100+40	0.0000	0.15	Q				
100+45	0.0000	0.14	Q				
100+50	0.0000	0.14	Q				
100+55	0.0000	0.14	Q				
101+ 0	0.0000	0.14	Q				
101+ 5	0.0000	0.14	Q				
101+10	0.0000	0.14	Q				
101+15	0.0000	0.14	Q				
101+20	0.0000	0.14	Q				
101+25	0.0000	0.14	Q				
101+30	0.0000	0.14	Q				

101+35	0.0000	0.14	Q				
101+40	0.0000	0.13	Q				
101+45	0.0000	0.13	Q				
101+50	0.0000	0.13	Q				
101+55	0.0000	0.13	Q				
102+ 0	0.0000	0.13	Q				
102+ 5	0.0000	0.13	Q				
102+10	0.0000	0.13	Q				
102+15	0.0000	0.13	Q				
102+20	0.0000	0.13	Q				
102+25	0.0000	0.12	Q				
102+30	0.0000	0.12	Q				
102+35	0.0000	0.12	Q				
102+40	0.0000	0.12	Q				
102+45	0.0000	0.12	Q				
102+50	0.0000	0.12	Q				
102+55	0.0000	0.12	Q				
103+ 0	0.0000	0.12	Q				
103+ 5	0.0000	0.12	Q				
103+10	0.0000	0.12	Q				
103+15	0.0000	0.11	Q				
103+20	0.0000	0.11	Q				
103+25	0.0000	0.11	Q				
103+30	0.0000	0.11	Q				
103+35	0.0000	0.11	Q				
103+40	0.0000	0.11	Q				
103+45	0.0000	0.11	Q				
103+50	0.0000	0.11	Q				
103+55	0.0000	0.11	Q				
104+ 0	0.0000	0.11	Q				
104+ 5	0.0000	0.11	Q				
104+10	0.0000	0.10	Q				
104+15	0.0000	0.10	Q				
104+20	0.0000	0.10	Q				
104+25	0.0000	0.10	Q				
104+30	0.0000	0.10	Q				
104+35	0.0000	0.10	Q				
104+40	0.0000	0.10	Q				
104+45	0.0000	0.10	Q				
104+50	0.0000	0.10	Q				
104+55	0.0000	0.10	Q				
105+ 0	0.0000	0.10	Q				
105+ 5	0.0000	0.10	Q				
105+10	0.0000	0.09	Q				
105+15	0.0000	0.09	Q				
105+20	0.0000	0.09	Q				
105+25	0.0000	0.09	Q				
105+30	0.0000	0.08	Q				
105+35	0.0000	0.08	Q				
105+40	0.0000	0.08	Q				
105+45	0.0000	0.07	Q				
105+50	0.0000	0.07	Q				
105+55	0.0000	0.07	Q				
106+ 0	0.0000	0.07	Q				

106+ 5	0.0000	0.07	Q				
106+10	0.0000	0.06	Q				
106+15	0.0000	0.06	Q				
106+20	0.0000	0.06	Q				
106+25	0.0000	0.06	Q				
106+30	0.0000	0.06	Q				
106+35	0.0000	0.05	Q				
106+40	0.0000	0.05	Q				
106+45	0.0000	0.05	Q				
106+50	0.0000	0.05	Q				
106+55	0.0000	0.05	Q				
107+ 0	0.0000	0.05	Q				
107+ 5	0.0000	0.04	Q				
107+10	0.0000	0.04	Q				
107+15	0.0000	0.04	Q				
107+20	0.0000	0.04	Q				
107+25	0.0000	0.04	Q				
107+30	0.0000	0.04	Q				
107+35	0.0000	0.04	Q				
107+40	0.0000	0.04	Q				
107+45	0.0000	0.03	Q				
107+50	0.0000	0.03	Q				
107+55	0.0000	0.03	Q				
108+ 0	0.0000	0.03	Q				
108+ 5	0.0000	0.03	Q				
108+10	0.0000	0.03	Q				
108+15	0.0000	0.03	Q				
108+20	0.0000	0.03	Q				
108+25	0.0000	0.03	Q				
108+30	0.0000	0.03	Q				
108+35	0.0000	0.02	Q				
108+40	0.0000	0.02	Q				
108+45	0.0000	0.02	Q				
108+50	0.0000	0.02	Q				
108+55	0.0000	0.02	Q				
109+ 0	0.0000	0.02	Q				
109+ 5	0.0000	0.02	Q				
109+10	0.0000	0.02	Q				
109+15	0.0000	0.02	Q				
109+20	0.0000	0.02	Q				
109+25	0.0000	0.02	Q				
109+30	0.0000	0.02	Q				
109+35	0.0000	0.02	Q				
109+40	0.0000	0.02	Q				
109+45	0.0000	0.02	Q				
109+50	0.0000	0.02	Q				
109+55	0.0000	0.01	Q				
110+ 0	0.0000	0.01	Q				
110+ 5	0.0000	0.01	Q				
110+10	0.0000	0.01	Q				
110+15	0.0000	0.01	Q				
110+20	0.0000	0.01	Q				
110+25	0.0000	0.01	Q				
110+30	0.0000	0.01	Q				

110+35	0.0000	0.01	Q				
110+40	0.0000	0.01	Q				
110+45	0.0000	0.01	Q				
110+50	0.0000	0.01	Q				
110+55	0.0000	0.01	Q				
111+ 0	0.0000	0.01	Q				
111+ 5	0.0000	0.01	Q				
111+10	0.0000	0.01	Q				
111+15	0.0000	0.01	Q				
111+20	0.0000	0.01	Q				
111+25	0.0000	0.01	Q				
111+30	0.0000	0.01	Q				
111+35	0.0000	0.01	Q				
111+40	0.0000	0.01	Q				
111+45	0.0000	0.01	Q				
111+50	0.0000	0.01	Q				
111+55	0.0000	0.01	Q				
112+ 0	0.0000	0.01	Q				
112+ 5	0.0000	0.01	Q				
112+10	0.0000	0.01	Q				
112+15	0.0000	0.01	Q				
112+20	0.0000	0.01	Q				
112+25	0.0000	0.01	Q				
112+30	0.0000	0.01	Q				
112+35	0.0000	0.01	Q				
112+40	0.0000	0.00	Q				
112+45	0.0000	0.00	Q				
112+50	0.0000	0.00	Q				
112+55	0.0000	0.00	Q				
113+ 0	0.0000	0.00	Q				
113+ 5	0.0000	0.00	Q				
113+10	0.0000	0.00	Q				
113+15	0.0000	0.00	Q				
113+20	0.0000	0.00	Q				
113+25	0.0000	0.00	Q				
113+30	0.0000	0.00	Q				
113+35	0.0000	0.00	Q				
113+40	0.0000	0.00	Q				
113+45	0.0000	0.00	Q				
113+50	0.0000	0.00	Q				
113+55	0.0000	0.00	Q				
114+ 0	0.0000	0.00	Q				
114+ 5	0.0000	0.00	Q				
114+10	0.0000	0.00	Q				
114+15	0.0000	0.00	Q				
114+20	0.0000	0.00	Q				
114+25	0.0000	0.00	Q				
114+30	0.0000	0.00	Q				
114+35	0.0000	0.00	Q				
114+40	0.0000	0.00	Q				
114+45	0.0000	0.00	Q				
114+50	0.0000	0.00	Q				
114+55	0.0000	0.00	Q				
115+ 0	0.0000	0.00	Q				

```
 115+ 5        0.0000       0.00  Q          |          |          |          |
 115+10        0.0000       0.00  Q          |          |          |          |
 115+15        0.0000       0.00  Q          |          |          |          |
 115+20        0.0000       0.00  Q          |          |          |          |
 115+25        0.0000       0.00  Q          |          |          |          |
 115+30        0.0000       0.00  Q          |          |          |          |
 115+35        0.0000       0.00  Q          |          |          |          |
 115+40        0.0000       0.00  Q          |          |          |          |
 115+45        0.0000       0.00  Q          |          |          |          |
 115+50        0.0000       0.00  Q          |          |          |          |
 115+55        0.0000       0.00  Q          |          |          |          |
 116+ 0        0.0000       0.00  Q          |          |          |          |
 116+ 5        0.0000       0.00  Q          |          |          |          |
 116+10        0.0000       0.00  Q          |          |          |          |
 116+15        0.0000       0.00  Q          |          |          |          |
 116+20        0.0000       0.00  Q          |          |          |          |
 116+25        0.0000       0.00  Q          |          |          |          |
 116+30        0.0000       0.00  Q          |          |          |          |
 116+35        0.0000       0.00  Q          |          |          |          |
 116+40        0.0000       0.00  Q          |          |          |          |
 116+45        0.0000       0.00  Q          |          |          |          |
----------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
               Number of intervals =  1401
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =        6.564 (CFS)
               Total volume =       7.859 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)       0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     **********************************************************************

     ----------------------------------------------------------------------


     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
     Process from Point/Station        1.000 to Point/Station        2.000
     **** STREAM ROUTING SCS CONVEX METHOD ****

     ______________________________________________________________________
     HYDROGRAPH STREAM ROUTING DATA:
     Length of stream =   2253.00 (Ft.)
     Elevation difference =   52.00 (Ft.)
     Slope of channel =  0.023080 (Vert/Horiz)
     Channel type - Irregular Channel


     Channel evaluation using mean flow rate of hydrograph
     Depth of flow =     0.888(Ft.)
     Average velocity =     3.475(Ft/s)
     Total flow rate =     2.739(CFS)
          ******* Irregular Channel Data ***********
     ----------------------------------------------------------------
     Information entered for subchannel number 1 :
```

```
Point number      'X' coordinate     'Y' coordinate
     1              0.00               5.00
     2              5.00               0.00
     3             10.00               5.00
Manning's 'N' friction factor =   0.030
-----------------------------------------------------------------
Sub-Channel flow  =      2.739(CFS)
  '     '    flow top width =      1.775(Ft.)
  '     '    velocity=    3.475(Ft/s)
  '     '    area =      0.788(Sq.Ft)
  '     '    Froude number =     0.919

Travel time  =    0.00 min.
Depth of flow =   0.888(Ft.)
Average velocity =   3.475(Ft/s)
Total irregular channel flow =     2.739(CFS)
Irregular channel normal depth above invert elev. =   0.888(Ft.)
Average velocity of channel(s) =   3.475(Ft/s)

Sub-Channel No. 1 Critical depth =      0.859(Ft.)
  '     '       '     Critical flow top width =      1.719(Ft.)
  '     '       '     Critical flow velocity=    3.708(Ft/s)
  '     '       '     Critical flow area =      0.739(Sq.Ft)


Channel evaluation using maximum flow rate of hydrograph
Depth of flow =     1.232(Ft.)
Average velocity =     4.324(Ft/s)
Total flow rate =     6.564(CFS)
      ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Sub-Channel flow  =      6.564(CFS)
  '     '    flow top width =      2.464(Ft.)
  '     '    velocity=    4.324(Ft/s)
  '     '    area =      1.518(Sq.Ft)
  '     '    Froude number =     0.971

Travel time  =    0.00 min.
Depth of flow =   1.232(Ft.)
Average velocity =   4.324(Ft/s)
Total irregular channel flow =     6.564(CFS)
Irregular channel normal depth above invert elev. =   1.232(Ft.)
Average velocity of channel(s) =   4.324(Ft/s)

Sub-Channel No. 1 Critical depth =      1.219(Ft.)
  '     '       '     Critical flow top width =      2.438(Ft.)
  '     '       '     Critical flow velocity=    4.419(Ft/s)
  '     '       '     Critical flow area =      1.485(Sq.Ft)


********************** SCS CONVEX CHANNEL ROUTING ********************
Convex method of stream routing  data items:
```

```
Using equation: Outflow =
O(t+dt) = (1-c*)O(t+dt-dt*) + Input(c*)
        where c* = 1 - (1-c)^e and dt = c(length)/velocity
        c(v/v+1.7) =   0.7178   Travel time =   8.68 (min.)
      dt*(unit time interval) =   5.00(min.),  e=   0.8681
      dt(routing time-step) =   6.23 (min.),   c* =   0.6666

Output hydrograph delayed by 0  unit time increments


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T  O F  S T O R M
               R u n o f f     H y d r o g r a p h
----------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

----------------------------------------------------------------------
Time(h+m) Out = O(CFS) In = I  0        1.6       3.3       4.9       6.6
----------------------------------------------------------------------
  0+ 5       0.0042      0.03  O         |         |         |         |
  0+10       0.0383      0.15  O         |         |         |         |
  0+15       0.1243      0.23  OI        |         |         |         |
  0+20       0.2040      0.29  |O        |         |         |         |
  0+25       0.2725      0.38  |OI       |         |         |         |
  0+30       0.3517      0.44  | O       |         |         |         |
  0+35       0.4183      0.48  | O       |         |         |         |
  0+40       0.4650      0.50  | OI      |         |         |         |
  0+45       0.4928      0.52  |  O      |         |         |         |
  0+50       0.5134      0.55  |  O      |         |         |         |
  0+55       0.5434      0.61  |  O      |         |         |         |
  1+ 0       0.5951      0.66  |  O      |         |         |         |
  1+ 5       0.6368      0.66  |  OI     |         |         |         |
  1+10       0.6495      0.62  |  O      |         |         |         |
  1+15       0.6292      0.60  |  O      |         |         |         |
  1+20       0.6091      0.59  |  O      |         |         |         |
  1+25       0.5993      0.59  |  O      |         |         |         |
  1+30       0.5942      0.59  |  O      |         |         |         |
  1+35       0.5918      0.59  |  O      |         |         |         |
  1+40       0.5910      0.59  |  O      |         |         |         |
  1+45       0.5911      0.59  |  O      |         |         |         |
  1+50       0.5934      0.61  |  O      |         |         |         |
  1+55       0.6102      0.66  |  OI     |         |         |         |
  2+ 0       0.6512      0.70  |  OI     |         |         |         |
  2+ 5       0.6867      0.72  |   O     |         |         |         |
  2+10       0.7085      0.73  |   O     |         |         |         |
  2+15       0.7225      0.74  |   O     |         |         |         |
  2+20       0.7324      0.74  |   O     |         |         |         |
  2+25       0.7399      0.75  |   O     |         |         |         |
  2+30       0.7461      0.75  |   O     |         |         |         |
  2+35       0.7532      0.77  |   O     |         |         |         |
  2+40       0.7733      0.83  |   OI    |         |         |         |
  2+45       0.8160      0.87  |   OI    |         |         |         |
  2+50       0.8517      0.88  |    O    |         |         |         |
  2+55       0.8732      0.89  |    O    |         |         |         |
```

3+ 0	0.8866	0.90	O			
3+ 5	0.8954	0.90	O			
3+10	0.9017	0.91	O			
3+15	0.9065	0.91	O			
3+20	0.9104	0.91	O			
3+25	0.9136	0.92	O			
3+30	0.9164	0.92	O			
3+35	0.9186	0.92	O			
3+40	0.9205	0.92	O			
3+45	0.9223	0.92	O			
3+50	0.9259	0.94	O			
3+55	0.9433	1.00	OI			
4+ 0	0.9845	1.03	OI			
4+ 5	1.0197	1.05	O			
4+10	1.0409	1.06	O			
4+15	1.0542	1.07	O			
4+20	1.0652	1.09	O			
4+25	1.0877	1.15	O			
4+30	1.1326	1.19	OI			
4+35	1.1705	1.20	O			
4+40	1.1938	1.21	O			
4+45	1.2088	1.22	O			
4+50	1.2209	1.24	O			
4+55	1.2442	1.30	O			
5+ 0	1.2898	1.34	OI			
5+ 5	1.3243	1.33	O			
5+10	1.3161	1.23	IO			
5+15	1.2519	1.17	O			
5+20	1.1968	1.16	O			
5+25	1.1808	1.21	O			
5+30	1.2029	1.24	O			
5+35	1.2284	1.26	O			
5+40	1.2581	1.32	OI			
5+45	1.3062	1.36	OI			
5+50	1.3451	1.38	O			
5+55	1.3688	1.39	O			
6+ 0	1.3837	1.40	O			
6+ 5	1.3963	1.42	O			
6+10	1.4202	1.48	OI			
6+15	1.4663	1.52	OI			
6+20	1.5054	1.54	O			
6+25	1.5298	1.55	O			
6+30	1.5458	1.56	O			
6+35	1.5585	1.58	O			
6+40	1.5826	1.64	OI			
6+45	1.6288	1.68	OI			
6+50	1.6677	1.70	O			
6+55	1.6921	1.71	O			
7+ 0	1.7080	1.72	O			
7+ 5	1.7191	1.73	O			
7+10	1.7274	1.74	O			
7+15	1.7341	1.74	O			
7+20	1.7416	1.76	O			
7+25	1.7624	1.82	OI			

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 7+30       1.8066      1.86  |          |O        |          |          |
 7+35       1.8460      1.89  |          |O        |          |          |
 7+40       1.8853      1.96  |          |O        |          |          |
 7+45       1.9404      2.00  |          |OI       |          |          |
 7+50       1.9867      2.04  |          | O       |          |          |
 7+55       2.0307      2.11  |          | O       |          |          |
 8+ 0       2.0890      2.16  |          | OI      |          |          |
 8+ 5       2.1400      2.21  |          |  O      |          |          |
 8+10       2.2020      2.34  |          |  OI     |          |          |
 8+15       2.3018      2.42  |          |   O     |          |          |
 8+20       2.3836      2.45  |          |   O     |          |          |
 8+25       2.4343      2.48  |          |   OI    |          |          |
 8+30       2.4668      2.50  |          |    O    |          |          |
 8+35       2.4902      2.52  |          |    O    |          |          |
 8+40       2.5216      2.59  |          |    O    |          |          |
 8+45       2.5731      2.63  |          |    OI   |          |          |
 8+50       2.6178      2.67  |          |    OI   |          |          |
 8+55       2.6609      2.74  |          |     O   |          |          |
 9+ 0       2.7186      2.78  |          |     O   |          |          |
 9+ 5       2.7679      2.83  |          |     OI  |          |          |
 9+10       2.8281      2.96  |          |      OI |          |          |
 9+15       2.9262      3.04  |          |      OI |          |          |
 9+20       3.0082      3.09  |          |       O |          |          |
 9+25       3.0731      3.17  |          |       OI|          |          |
 9+30       3.1440      3.22  |          |        O|          |          |
 9+35       3.2005      3.26  |          |        O|          |          |
 9+40       3.2514      3.34  |          |        OI          |          |
 9+45       3.3145      3.38  |          |         O          |          |
 9+50       3.3666      3.42  |          |         O          |          |
 9+55       3.4146      3.50  |          |         OI         |          |
10+ 0       3.4760      3.54  |          |         |O         |          |
10+ 5       3.5109      3.46  |          |         |O         |          |
10+10       3.4304      3.09  |          |       I O          |          |
10+15       3.1733      2.86  |          |      I O|          |          |
10+20       2.9525      2.77  |          |     IO  |          |          |
10+25       2.8264      2.73  |          |     IO  |          |          |
10+30       2.7591      2.72  |          |     O   |          |          |
10+35       2.7404      2.79  |          |     OI  |          |          |
10+40       2.8119      3.08  |          |      OI |          |          |
10+45       3.0154      3.27  |          |       OI|          |          |
10+50       3.1964      3.36  |          |        OI          |          |
10+55       3.3129      3.42  |          |         O          |          |
11+ 0       3.3929      3.48  |          |         OI         |          |
11+ 5       3.4533      3.51  |          |         |O         |          |
11+10       3.4888      3.49  |          |         |O         |          |
11+15       3.4935      3.50  |          |         |O         |          |
11+20       3.5008      3.52  |          |         |O         |          |
11+25       3.5189      3.55  |          |         |O         |          |
11+30       3.5427      3.57  |          |         |O         |          |
11+35       3.5637      3.57  |          |         |O         |          |
11+40       3.5573      3.48  |          |         |O         |          |
11+45       3.5030      3.44  |          |         IO         |          |
11+50       3.4614      3.45  |          |         |O         |          |
11+55       3.4615      3.51  |          |         |O         |          |
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12+ 0	3.5018	3.56			O	
12+ 5	3.5593	3.70			OI	
12+10	3.7073	4.12			O I	
12+15	4.0202	4.40			O I	
12+20	4.2931	4.55			OI	
12+25	4.4831	4.70			OI	
12+30	4.6417	4.81			OI	
12+35	4.7688	4.92			O	
12+40	4.8933	5.10			O I	
12+45	5.0478	5.23			OI	
12+50	5.1820	5.33			OI	
12+55	5.2958	5.45			OI	
13+ 0	5.4133	5.55			OI	
13+ 5	5.5210	5.69			OI	
13+10	5.6784	6.03			O I	
13+15	5.9446	6.26			O I	
13+20	6.1738	6.39			OI	
13+25	6.3296	6.48			OI	
13+30	6.4433	6.56			OI	
13+35	6.5111	6.47			O	
13+40	6.4091	5.91			I O	
13+45	6.0317	5.57			I O	
13+50	5.7105	5.46			IO	
13+55	5.5360	5.41			IO	
14+ 0	5.4450	5.38			IO	
14+ 5	5.4053	5.42			OI	
14+10	5.4474	5.65			OI	
14+15	5.6016	5.80			OI	
14+20	5.7398	5.85			OI	
14+25	5.8154	5.85			O	
14+30	5.8397	5.86			O	
14+35	5.8589	5.89			O	
14+40	5.8845	5.92			OI	
14+45	5.9134	5.95			O	
14+50	5.9434	5.97			O	
14+55	5.9598	5.95			O	
15+ 0	5.9517	5.94			O	
15+ 5	5.9457	5.94			O	
15+10	5.9383	5.90			IO	
15+15	5.9116	5.88			IO	
15+20	5.8868	5.86			O	
15+25	5.8620	5.81			O	
15+30	5.8219	5.78			O	
15+35	5.7848	5.71			IO	
15+40	5.7083	5.49			IO	
15+45	5.5452	5.35			IO	
15+50	5.4113	5.30			O	
15+55	5.3359	5.28			O	
16+ 0	5.2940	5.26			O	
16+ 5	5.2415	5.03			IO	
16+10	4.9881	4.18			I O	
16+15	4.3806	3.65			I O	
16+20	3.8654	3.43			I O	
16+25	3.5602	3.30			IO	

16+30	3.3750	3.21			IO		
16+35	3.2549	3.13			O		
16+40	3.1581	3.03			IO		
16+45	3.0598	2.95			IO		
16+50	2.9822	2.91			IO		
16+55	2.9283	2.87			O		
17+ 0	2.8887	2.85			O		
17+ 5	2.8665	2.87			O		
17+10	2.8785	2.96			OI		
17+15	2.9421	3.02			OI		
17+20	2.9988	3.04			O		
17+25	3.0298	3.05			O		
17+30	3.0459	3.06			O		
17+35	3.0541	3.06			O		
17+40	3.0579	3.06			O		
17+45	3.0589	3.06			O		
17+50	3.0563	3.04			O		
17+55	3.0386	2.98			O		
18+ 0	2.9955	2.94			IO		
18+ 5	2.9549	2.92			IO		
18+10	2.9265	2.90			O		
18+15	2.9053	2.88			O		
18+20	2.8878	2.87			O		
18+25	2.8726	2.85			O		
18+30	2.8589	2.84			O		
18+35	2.8441	2.82			O		
18+40	2.8159	2.75			IO		
18+45	2.7639	2.70			O		
18+50	2.7163	2.66			O		
18+55	2.6684	2.58			IO		
19+ 0	2.6044	2.53			O		
19+ 5	2.5526	2.51			O		
19+10	2.5313	2.55			O		
19+15	2.5436	2.56			O		
19+20	2.5576	2.57			O		
19+25	2.5752	2.62			O		
19+30	2.6113	2.65			OI		
19+35	2.6370	2.64			O		
19+40	2.6334	2.59			IO		
19+45	2.5969	2.55			O		
19+50	2.5598	2.51			O		
19+55	2.5195	2.44			IO		
20+ 0	2.4612	2.39			O		
20+ 5	2.4136	2.38			O		
20+10	2.3956	2.41			O		
20+15	2.4108	2.43			O		
20+20	2.4247	2.43			O		
20+25	2.4277	2.42			O		
20+30	2.4246	2.42			O		
20+35	2.4187	2.41			O		
20+40	2.4112	2.40			O		
20+45	2.4029	2.39			O		
20+50	2.3926	2.37			O		
20+55	2.3678	2.30			O		

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21+ 0      2.3186     2.26  |          |  IO     |          |          |
21+ 5      2.2768     2.25  |          |  O      |          |          |
21+10      2.2628     2.29  |          |  O      |          |          |
21+15      2.2809     2.31  |          |  OI     |          |          |
21+20      2.2954     2.29  |          |  O      |          |          |
21+25      2.2844     2.23  |          |  O      |          |          |
21+30      2.2429     2.19  |          |  O      |          |          |
21+35      2.2057     2.18  |          |  O      |          |          |
21+40      2.1948     2.22  |          |  O      |          |          |
21+45      2.2149     2.24  |          |  O      |          |          |
21+50      2.2315     2.23  |          |  O      |          |          |
21+55      2.2222     2.17  |          |  O      |          |          |
22+ 0      2.1821     2.13  |          | IO      |          |          |
22+ 5      2.1460     2.12  |          | IO      |          |          |
22+10      2.1359     2.16  |          |  O      |          |          |
22+15      2.1569     2.19  |          |  O      |          |          |
22+20      2.1740     2.17  |          |  O      |          |          |
22+25      2.1652     2.11  |          | IO      |          |          |
22+30      2.1256     2.07  |          | O       |          |          |
22+35      2.0880     2.05  |          | O       |          |          |
22+40      2.0622     2.04  |          | O       |          |          |
22+45      2.0431     2.02  |          | O       |          |          |
22+50      2.0279     2.01  |          | O       |          |          |
22+55      2.0146     2.00  |          | O       |          |          |
23+ 0      2.0026     1.99  |          | O       |          |          |
23+ 5      1.9911     1.98  |          | O       |          |          |
23+10      1.9803     1.97  |          |IO       |          |          |
23+15      1.9698     1.96  |          |IO       |          |          |
23+20      1.9598     1.95  |          |O        |          |          |
23+25      1.9500     1.94  |          |O        |          |          |
23+30      1.9404     1.93  |          |O        |          |          |
23+35      1.9311     1.92  |          |O        |          |          |
23+40      1.9219     1.91  |          |O        |          |          |
23+45      1.9129     1.90  |          |O        |          |          |
23+50      1.9039     1.89  |          |O        |          |          |
23+55      1.8950     1.88  |          |O        |          |          |
24+ 0      1.8862     1.87  |          |O        |          |          |
24+ 5      1.8734     1.84  |          |O        |          |          |
24+10      1.8324     1.71  |          IO        |          |          |
24+15      1.7429     1.63  |         IO         |          |          |
24+20      1.6647     1.59  |         IO         |          |          |
24+25      1.6140     1.57  |         O|         |          |          |
24+30      1.5791     1.54  |         O|         |          |          |
24+35      1.5528     1.52  |         O|         |          |          |
24+40      1.5313     1.51  |         O|         |          |          |
24+45      1.5129     1.49  |         O|         |          |          |
24+50      1.4964     1.48  |        IO|         |          |          |
24+55      1.4813     1.46  |        IO|         |          |          |
25+ 0      1.4671     1.45  |        O |         |          |          |
25+ 5      1.4542     1.44  |        O |         |          |          |
25+10      1.4419     1.43  |        O |         |          |          |
25+15      1.4299     1.42  |        O |         |          |          |
25+20      1.4185     1.40  |        O |         |          |          |
25+25      1.4074     1.39  |        O |         |          |          |
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25+30	1.3964	1.38	O				
25+35	1.3855	1.37	O				
25+40	1.3747	1.36	O				
25+45	1.3640	1.35	O				
25+50	1.3534	1.34	O				
25+55	1.3429	1.33	O				
26+ 0	1.3324	1.32	O				
26+ 5	1.3220	1.31	IO				
26+10	1.3118	1.30	O				
26+15	1.3015	1.29	O				
26+20	1.2914	1.28	O				
26+25	1.2814	1.27	O				
26+30	1.2714	1.26	O				
26+35	1.2615	1.25	O				
26+40	1.2517	1.24	O				
26+45	1.2419	1.23	O				
26+50	1.2322	1.22	O				
26+55	1.2226	1.21	O				
27+ 0	1.2131	1.20	O				
27+ 5	1.2037	1.19	O				
27+10	1.1943	1.18	O				
27+15	1.1850	1.17	O				
27+20	1.1758	1.16	O				
27+25	1.1666	1.15	O				
27+30	1.1575	1.15	IO				
27+35	1.1485	1.14	O				
27+40	1.1396	1.13	O				
27+45	1.1307	1.12	O				
27+50	1.1219	1.11	O				
27+55	1.1132	1.10	O				
28+ 0	1.1045	1.09	O				
28+ 5	1.0959	1.08	O				
28+10	1.0874	1.08	O				
28+15	1.0789	1.07	O				
28+20	1.0705	1.06	O				
28+25	1.0622	1.05	O				
28+30	1.0539	1.04	O				
28+35	1.0457	1.04	O				
28+40	1.0376	1.03	O				
28+45	1.0295	1.02	O				
28+50	1.0215	1.01	O				
28+55	1.0135	1.00	O				
29+ 0	1.0056	1.00	O				
29+ 5	0.9978	0.99	O				
29+10	0.9900	0.98	IO				
29+15	0.9823	0.97	O				
29+20	0.9747	0.96	O				
29+25	0.9671	0.96	O				
29+30	0.9596	0.95	O				
29+35	0.9521	0.94	O				
29+40	0.9447	0.94	O				
29+45	0.9373	0.93	O				
29+50	0.9300	0.92	O				
29+55	0.9228	0.91	O				

30+ 0	0.9156	0.91	O				
30+ 5	0.9085	0.90	O				
30+10	0.9014	0.89	O				
30+15	0.8945	0.89	O				
30+20	0.8876	0.88	O				
30+25	0.8808	0.87	O				
30+30	0.8740	0.87	O				
30+35	0.8673	0.86	O				
30+40	0.8606	0.85	O				
30+45	0.8540	0.85	O				
30+50	0.8475	0.84	O				
30+55	0.8410	0.83	O				
31+ 0	0.8345	0.83	O				
31+ 5	0.8281	0.82	IO				
31+10	0.8217	0.81	IO				
31+15	0.8154	0.81	O				
31+20	0.8092	0.80	O				
31+25	0.8030	0.79	O				
31+30	0.7968	0.79	O				
31+35	0.7907	0.78	O				
31+40	0.7846	0.78	O				
31+45	0.7786	0.77	O				
31+50	0.7726	0.76	O				
31+55	0.7667	0.76	O				
32+ 0	0.7608	0.75	O				
32+ 5	0.7550	0.75	O				
32+10	0.7492	0.74	O				
32+15	0.7434	0.74	O				
32+20	0.7377	0.73	O				
32+25	0.7320	0.72	O				
32+30	0.7264	0.72	O				
32+35	0.7208	0.71	O				
32+40	0.7153	0.71	O				
32+45	0.7098	0.70	O				
32+50	0.7044	0.70	O				
32+55	0.6990	0.69	O				
33+ 0	0.6936	0.69	O				
33+ 5	0.6883	0.68	O				
33+10	0.6830	0.68	O				
33+15	0.6777	0.67	O				
33+20	0.6725	0.67	O				
33+25	0.6674	0.66	O				
33+30	0.6622	0.66	IO				
33+35	0.6572	0.65	IO				
33+40	0.6521	0.65	O				
33+45	0.6471	0.64	O				
33+50	0.6421	0.64	O				
33+55	0.6372	0.63	O				
34+ 0	0.6323	0.63	O				
34+ 5	0.6275	0.62	O				
34+10	0.6226	0.62	O				
34+15	0.6179	0.61	O				
34+20	0.6131	0.61	O				
34+25	0.6084	0.60	O				

34+30	0.6037	0.60	O				
34+35	0.5991	0.59	O				
34+40	0.5945	0.59	O				
34+45	0.5899	0.58	O				
34+50	0.5854	0.58	O				
34+55	0.5809	0.58	O				
35+ 0	0.5765	0.57	O				
35+ 5	0.5720	0.57	O				
35+10	0.5676	0.56	O				
35+15	0.5633	0.56	O				
35+20	0.5590	0.55	O				
35+25	0.5547	0.55	O				
35+30	0.5504	0.54	O				
35+35	0.5462	0.54	O				
35+40	0.5420	0.54	O				
35+45	0.5378	0.53	O				
35+50	0.5337	0.53	O				
35+55	0.5296	0.52	O				
36+ 0	0.5255	0.52	O				
36+ 5	0.5215	0.52	O				
36+10	0.5175	0.51	O				
36+15	0.5135	0.51	O				
36+20	0.5096	0.50	O				
36+25	0.5057	0.50	O				
36+30	0.5018	0.50	O				
36+35	0.4979	0.49	O				
36+40	0.4941	0.49	IO				
36+45	0.4903	0.49	O				
36+50	0.4866	0.48	O				
36+55	0.4828	0.48	O				
37+ 0	0.4791	0.47	O				
37+ 5	0.4754	0.47	O				
37+10	0.4718	0.47	O				
37+15	0.4682	0.46	O				
37+20	0.4646	0.46	O				
37+25	0.4610	0.46	O				
37+30	0.4575	0.45	O				
37+35	0.4540	0.45	O				
37+40	0.4505	0.45	O				
37+45	0.4470	0.44	O				
37+50	0.4436	0.44	O				
37+55	0.4402	0.44	O				
38+ 0	0.4368	0.43	O				
38+ 5	0.4335	0.43	O				
38+10	0.4311	0.43	O				
38+15	0.4300	0.43	O				
38+20	0.4294	0.43	O				
38+25	0.4290	0.43	O				
38+30	0.4286	0.43	O				
38+35	0.4283	0.43	O				
38+40	0.4279	0.43	O				
38+45	0.4276	0.43	O				
38+50	0.4272	0.43	O				
38+55	0.4269	0.43	O				

39+ 0	0.4265	0.43	O				
39+ 5	0.4262	0.43	O				
39+10	0.4258	0.43	O				
39+15	0.4255	0.43	O				
39+20	0.4252	0.42	O				
39+25	0.4248	0.42	O				
39+30	0.4245	0.42	O				
39+35	0.4241	0.42	O				
39+40	0.4238	0.42	O				
39+45	0.4234	0.42	O				
39+50	0.4231	0.42	O				
39+55	0.4228	0.42	O				
40+ 0	0.4224	0.42	O				
40+ 5	0.4221	0.42	O				
40+10	0.4217	0.42	O				
40+15	0.4214	0.42	O				
40+20	0.4210	0.42	O				
40+25	0.4207	0.42	O				
40+30	0.4204	0.42	O				
40+35	0.4200	0.42	O				
40+40	0.4197	0.42	O				
40+45	0.4193	0.42	O				
40+50	0.4190	0.42	O				
40+55	0.4187	0.42	O				
41+ 0	0.4183	0.42	O				
41+ 5	0.4180	0.42	O				
41+10	0.4176	0.42	O				
41+15	0.4173	0.42	O				
41+20	0.4170	0.42	O				
41+25	0.4166	0.42	O				
41+30	0.4163	0.42	O				
41+35	0.4160	0.42	O				
41+40	0.4156	0.42	O				
41+45	0.4153	0.41	O				
41+50	0.4150	0.41	O				
41+55	0.4146	0.41	O				
42+ 0	0.4143	0.41	O				
42+ 5	0.4139	0.41	O				
42+10	0.4136	0.41	O				
42+15	0.4133	0.41	O				
42+20	0.4129	0.41	O				
42+25	0.4126	0.41	O				
42+30	0.4123	0.41	O				
42+35	0.4119	0.41	O				
42+40	0.4116	0.41	O				
42+45	0.4113	0.41	O				
42+50	0.4109	0.41	O				
42+55	0.4106	0.41	O				
43+ 0	0.4103	0.41	O				
43+ 5	0.4099	0.41	O				
43+10	0.4096	0.41	O				
43+15	0.4093	0.41	O				
43+20	0.4089	0.41	O				
43+25	0.4086	0.41	O				

43+30	0.4083	0.41	O				
43+35	0.4079	0.41	O				
43+40	0.4076	0.41	O				
43+45	0.4073	0.41	O				
43+50	0.4070	0.41	O				
43+55	0.4066	0.41	O				
44+ 0	0.4063	0.41	O				
44+ 5	0.4060	0.41	O				
44+10	0.4056	0.41	O				
44+15	0.4053	0.40	O				
44+20	0.4050	0.40	O				
44+25	0.4047	0.40	O				
44+30	0.4043	0.40	O				
44+35	0.4040	0.40	O				
44+40	0.4037	0.40	O				
44+45	0.4033	0.40	O				
44+50	0.4030	0.40	O				
44+55	0.4027	0.40	O				
45+ 0	0.4024	0.40	O				
45+ 5	0.4020	0.40	O				
45+10	0.4017	0.40	O				
45+15	0.4014	0.40	O				
45+20	0.4011	0.40	O				
45+25	0.4007	0.40	O				
45+30	0.4004	0.40	O				
45+35	0.4001	0.40	O				
45+40	0.3998	0.40	O				
45+45	0.3994	0.40	O				
45+50	0.3991	0.40	O				
45+55	0.3988	0.40	O				
46+ 0	0.3985	0.40	O				
46+ 5	0.3982	0.40	O				
46+10	0.3978	0.40	O				
46+15	0.3975	0.40	O				
46+20	0.3972	0.40	O				
46+25	0.3969	0.40	O				
46+30	0.3965	0.40	O				
46+35	0.3962	0.40	O				
46+40	0.3959	0.40	O				
46+45	0.3956	0.40	O				
46+50	0.3953	0.39	O				
46+55	0.3949	0.39	O				
47+ 0	0.3946	0.39	O				
47+ 5	0.3943	0.39	O				
47+10	0.3940	0.39	O				
47+15	0.3937	0.39	O				
47+20	0.3933	0.39	O				
47+25	0.3930	0.39	O				
47+30	0.3927	0.39	O				
47+35	0.3924	0.39	O				
47+40	0.3921	0.39	O				
47+45	0.3918	0.39	O				
47+50	0.3914	0.39	O				
47+55	0.3911	0.39	O				

48+ 0	0.3908	0.39	O			
48+ 5	0.3905	0.39	O			
48+10	0.3902	0.39	O			
48+15	0.3899	0.39	O			
48+20	0.3895	0.39	O			
48+25	0.3892	0.39	O			
48+30	0.3889	0.39	O			
48+35	0.3886	0.39	O			
48+40	0.3883	0.39	O			
48+45	0.3880	0.39	O			
48+50	0.3876	0.39	O			
48+55	0.3873	0.39	O			
49+ 0	0.3870	0.39	O			
49+ 5	0.3867	0.39	O			
49+10	0.3864	0.39	O			
49+15	0.3861	0.39	O			
49+20	0.3858	0.39	O			
49+25	0.3855	0.39	O			
49+30	0.3851	0.38	O			
49+35	0.3848	0.38	O			
49+40	0.3845	0.38	O			
49+45	0.3842	0.38	O			
49+50	0.3839	0.38	O			
49+55	0.3836	0.38	O			
50+ 0	0.3833	0.38	O			
50+ 5	0.3830	0.38	O			
50+10	0.3827	0.38	O			
50+15	0.3823	0.38	O			
50+20	0.3820	0.38	O			
50+25	0.3817	0.38	O			
50+30	0.3814	0.38	O			
50+35	0.3811	0.38	O			
50+40	0.3808	0.38	O			
50+45	0.3805	0.38	O			
50+50	0.3802	0.38	O			
50+55	0.3799	0.38	O			
51+ 0	0.3796	0.38	O			
51+ 5	0.3793	0.38	O			
51+10	0.3790	0.38	O			
51+15	0.3786	0.38	O			
51+20	0.3783	0.38	O			
51+25	0.3780	0.38	O			
51+30	0.3777	0.38	O			
51+35	0.3774	0.38	O			
51+40	0.3771	0.38	O			
51+45	0.3768	0.38	O			
51+50	0.3765	0.38	O			
51+55	0.3762	0.38	O			
52+ 0	0.3759	0.38	O			
52+ 5	0.3756	0.38	O			
52+10	0.3753	0.37	O			
52+15	0.3750	0.37	O			
52+20	0.3747	0.37	O			
52+25	0.3744	0.37	O			

52+30	0.3741	0.37	O				
52+35	0.3738	0.37	O				
52+40	0.3735	0.37	O				
52+45	0.3732	0.37	O				
52+50	0.3729	0.37	O				
52+55	0.3726	0.37	O				
53+ 0	0.3723	0.37	O				
53+ 5	0.3720	0.37	O				
53+10	0.3717	0.37	O				
53+15	0.3714	0.37	O				
53+20	0.3711	0.37	O				
53+25	0.3708	0.37	O				
53+30	0.3705	0.37	O				
53+35	0.3701	0.37	O				
53+40	0.3698	0.37	O				
53+45	0.3694	0.37	O				
53+50	0.3690	0.37	O				
53+55	0.3686	0.37	O				
54+ 0	0.3682	0.37	O				
54+ 5	0.3679	0.37	O				
54+10	0.3675	0.37	O				
54+15	0.3671	0.37	O				
54+20	0.3667	0.37	O				
54+25	0.3663	0.37	O				
54+30	0.3659	0.37	O				
54+35	0.3655	0.37	O				
54+40	0.3651	0.36	O				
54+45	0.3647	0.36	O				
54+50	0.3644	0.36	O				
54+55	0.3640	0.36	O				
55+ 0	0.3636	0.36	O				
55+ 5	0.3632	0.36	O				
55+10	0.3628	0.36	O				
55+15	0.3624	0.36	O				
55+20	0.3621	0.36	O				
55+25	0.3617	0.36	O				
55+30	0.3613	0.36	O				
55+35	0.3609	0.36	O				
55+40	0.3605	0.36	O				
55+45	0.3601	0.36	O				
55+50	0.3598	0.36	O				
55+55	0.3594	0.36	O				
56+ 0	0.3590	0.36	O				
56+ 5	0.3586	0.36	O				
56+10	0.3582	0.36	O				
56+15	0.3579	0.36	O				
56+20	0.3575	0.36	O				
56+25	0.3571	0.36	O				
56+30	0.3567	0.36	O				
56+35	0.3563	0.36	O				
56+40	0.3560	0.36	O				
56+45	0.3556	0.36	O				
56+50	0.3552	0.35	O				
56+55	0.3548	0.35	O				

57+ 0	0.3545	0.35	O				
57+ 5	0.3541	0.35	O				
57+10	0.3537	0.35	O				
57+15	0.3533	0.35	O				
57+20	0.3530	0.35	O				
57+25	0.3526	0.35	O				
57+30	0.3522	0.35	O				
57+35	0.3518	0.35	O				
57+40	0.3515	0.35	O				
57+45	0.3511	0.35	O				
57+50	0.3507	0.35	O				
57+55	0.3503	0.35	O				
58+ 0	0.3499	0.35	O				
58+ 5	0.3494	0.35	O				
58+10	0.3489	0.35	O				
58+15	0.3484	0.35	O				
58+20	0.3479	0.35	O				
58+25	0.3474	0.35	O				
58+30	0.3469	0.35	O				
58+35	0.3464	0.35	O				
58+40	0.3459	0.35	O				
58+45	0.3454	0.34	O				
58+50	0.3449	0.34	O				
58+55	0.3444	0.34	O				
59+ 0	0.3439	0.34	O				
59+ 5	0.3434	0.34	O				
59+10	0.3429	0.34	O				
59+15	0.3424	0.34	O				
59+20	0.3419	0.34	O				
59+25	0.3414	0.34	O				
59+30	0.3409	0.34	O				
59+35	0.3404	0.34	O				
59+40	0.3399	0.34	O				
59+45	0.3394	0.34	O				
59+50	0.3389	0.34	O				
59+55	0.3384	0.34	O				
60+ 0	0.3379	0.34	O				
60+ 5	0.3374	0.34	O				
60+10	0.3369	0.34	O				
60+15	0.3364	0.34	O				
60+20	0.3359	0.34	O				
60+25	0.3354	0.33	O				
60+30	0.3349	0.33	O				
60+35	0.3345	0.33	O				
60+40	0.3340	0.33	O				
60+45	0.3335	0.33	O				
60+50	0.3330	0.33	O				
60+55	0.3325	0.33	O				
61+ 0	0.3320	0.33	O				
61+ 5	0.3315	0.33	O				
61+10	0.3310	0.33	O				
61+15	0.3306	0.33	O				
61+20	0.3301	0.33	O				
61+25	0.3296	0.33	O				

61+30	0.3291	0.33	O				
61+35	0.3286	0.33	IO				
61+40	0.3282	0.33	O				
61+45	0.3277	0.33	O				
61+50	0.3272	0.33	O				
61+55	0.3267	0.33	O				
62+ 0	0.3262	0.33	O				
62+ 5	0.3258	0.33	O				
62+10	0.3253	0.32	O				
62+15	0.3248	0.32	O				
62+20	0.3243	0.32	O				
62+25	0.3239	0.32	O				
62+30	0.3234	0.32	O				
62+35	0.3229	0.32	O				
62+40	0.3224	0.32	O				
62+45	0.3220	0.32	O				
62+50	0.3215	0.32	O				
62+55	0.3210	0.32	O				
63+ 0	0.3206	0.32	O				
63+ 5	0.3201	0.32	O				
63+10	0.3196	0.32	O				
63+15	0.3192	0.32	O				
63+20	0.3187	0.32	O				
63+25	0.3182	0.32	O				
63+30	0.3178	0.32	O				
63+35	0.3173	0.32	O				
63+40	0.3168	0.32	O				
63+45	0.3164	0.32	O				
63+50	0.3159	0.32	O				
63+55	0.3154	0.31	O				
64+ 0	0.3150	0.31	O				
64+ 5	0.3145	0.31	O				
64+10	0.3141	0.31	O				
64+15	0.3136	0.31	O				
64+20	0.3131	0.31	O				
64+25	0.3127	0.31	O				
64+30	0.3122	0.31	O				
64+35	0.3118	0.31	O				
64+40	0.3113	0.31	O				
64+45	0.3109	0.31	O				
64+50	0.3104	0.31	O				
64+55	0.3099	0.31	O				
65+ 0	0.3095	0.31	O				
65+ 5	0.3090	0.31	O				
65+10	0.3086	0.31	O				
65+15	0.3081	0.31	O				
65+20	0.3077	0.31	O				
65+25	0.3072	0.31	O				
65+30	0.3068	0.31	O				
65+35	0.3063	0.31	O				
65+40	0.3059	0.31	O				
65+45	0.3054	0.30	O				
65+50	0.3050	0.30	O				
65+55	0.3046	0.30	O				

66+ 0	0.3041	0.30	O				
66+ 5	0.3037	0.30	O				
66+10	0.3032	0.30	O				
66+15	0.3028	0.30	O				
66+20	0.3023	0.30	O				
66+25	0.3019	0.30	O				
66+30	0.3014	0.30	O				
66+35	0.3010	0.30	O				
66+40	0.3006	0.30	O				
66+45	0.3001	0.30	O				
66+50	0.2997	0.30	O				
66+55	0.2992	0.30	O				
67+ 0	0.2988	0.30	O				
67+ 5	0.2984	0.30	O				
67+10	0.2979	0.30	O				
67+15	0.2975	0.30	O				
67+20	0.2971	0.30	O				
67+25	0.2966	0.30	O				
67+30	0.2962	0.30	O				
67+35	0.2958	0.30	O				
67+40	0.2953	0.29	O				
67+45	0.2949	0.29	O				
67+50	0.2945	0.29	O				
67+55	0.2940	0.29	O				
68+ 0	0.2936	0.29	O				
68+ 5	0.2932	0.29	O				
68+10	0.2928	0.29	O				
68+15	0.2923	0.29	O				
68+20	0.2919	0.29	O				
68+25	0.2915	0.29	O				
68+30	0.2910	0.29	O				
68+35	0.2906	0.29	O				
68+40	0.2902	0.29	O				
68+45	0.2898	0.29	O				
68+50	0.2893	0.29	O				
68+55	0.2889	0.29	O				
69+ 0	0.2885	0.29	O				
69+ 5	0.2881	0.29	O				
69+10	0.2877	0.29	O				
69+15	0.2872	0.29	O				
69+20	0.2868	0.29	O				
69+25	0.2864	0.29	O				
69+30	0.2860	0.29	O				
69+35	0.2856	0.29	O				
69+40	0.2851	0.28	O				
69+45	0.2847	0.28	O				
69+50	0.2843	0.28	O				
69+55	0.2839	0.28	O				
70+ 0	0.2835	0.28	O				
70+ 5	0.2831	0.28	O				
70+10	0.2826	0.28	O				
70+15	0.2822	0.28	O				
70+20	0.2818	0.28	O				
70+25	0.2814	0.28	O				

70+30	0.2810	0.28	O				
70+35	0.2806	0.28	O				
70+40	0.2802	0.28	O				
70+45	0.2798	0.28	O				
70+50	0.2794	0.28	O				
70+55	0.2789	0.28	O				
71+ 0	0.2785	0.28	O				
71+ 5	0.2781	0.28	O				
71+10	0.2777	0.28	O				
71+15	0.2773	0.28	O				
71+20	0.2769	0.28	O				
71+25	0.2765	0.28	O				
71+30	0.2761	0.28	O				
71+35	0.2757	0.28	O				
71+40	0.2753	0.27	O				
71+45	0.2749	0.27	O				
71+50	0.2745	0.27	O				
71+55	0.2741	0.27	O				
72+ 0	0.2737	0.27	O				
72+ 5	0.2733	0.27	O				
72+10	0.2729	0.27	O				
72+15	0.2725	0.27	O				
72+20	0.2721	0.27	O				
72+25	0.2717	0.27	O				
72+30	0.2713	0.27	O				
72+35	0.2709	0.27	O				
72+40	0.2705	0.27	O				
72+45	0.2701	0.27	O				
72+50	0.2697	0.27	O				
72+55	0.2693	0.27	O				
73+ 0	0.2689	0.27	O				
73+ 5	0.2685	0.27	O				
73+10	0.2681	0.27	O				
73+15	0.2677	0.27	O				
73+20	0.2674	0.27	O				
73+25	0.2670	0.27	O				
73+30	0.2666	0.27	O				
73+35	0.2662	0.27	O				
73+40	0.2658	0.27	O				
73+45	0.2654	0.26	O				
73+50	0.2650	0.26	O				
73+55	0.2646	0.26	O				
74+ 0	0.2642	0.26	O				
74+ 5	0.2639	0.26	O				
74+10	0.2635	0.26	O				
74+15	0.2631	0.26	O				
74+20	0.2627	0.26	O				
74+25	0.2623	0.26	O				
74+30	0.2619	0.26	O				
74+35	0.2616	0.26	O				
74+40	0.2612	0.26	O				
74+45	0.2608	0.26	O				
74+50	0.2604	0.26	O				
74+55	0.2600	0.26	O				

75+ 0	0.2596	0.26	O				
75+ 5	0.2593	0.26	O				
75+10	0.2589	0.26	O				
75+15	0.2585	0.26	O				
75+20	0.2581	0.26	O				
75+25	0.2578	0.26	O				
75+30	0.2574	0.26	O				
75+35	0.2570	0.26	O				
75+40	0.2566	0.26	O				
75+45	0.2562	0.26	O				
75+50	0.2559	0.26	O				
75+55	0.2555	0.26	O				
76+ 0	0.2551	0.25	O				
76+ 5	0.2548	0.25	O				
76+10	0.2544	0.25	O				
76+15	0.2540	0.25	O				
76+20	0.2536	0.25	O				
76+25	0.2533	0.25	O				
76+30	0.2529	0.25	O				
76+35	0.2525	0.25	O				
76+40	0.2522	0.25	O				
76+45	0.2518	0.25	O				
76+50	0.2514	0.25	O				
76+55	0.2511	0.25	O				
77+ 0	0.2507	0.25	O				
77+ 5	0.2503	0.25	O				
77+10	0.2500	0.25	O				
77+15	0.2496	0.25	O				
77+20	0.2492	0.25	O				
77+25	0.2489	0.25	O				
77+30	0.2485	0.25	O				
77+35	0.2481	0.25	O				
77+40	0.2478	0.25	O				
77+45	0.2474	0.25	O				
77+50	0.2470	0.25	O				
77+55	0.2467	0.25	O				
78+ 0	0.2463	0.25	O				
78+ 5	0.2460	0.25	O				
78+10	0.2456	0.25	O				
78+15	0.2452	0.24	O				
78+20	0.2449	0.24	O				
78+25	0.2445	0.24	O				
78+30	0.2442	0.24	O				
78+35	0.2438	0.24	O				
78+40	0.2435	0.24	O				
78+45	0.2431	0.24	O				
78+50	0.2427	0.24	O				
78+55	0.2424	0.24	O				
79+ 0	0.2420	0.24	O				
79+ 5	0.2417	0.24	O				
79+10	0.2413	0.24	O				
79+15	0.2410	0.24	O				
79+20	0.2406	0.24	O				
79+25	0.2403	0.24	O				

79+30	0.2399	0.24	O				
79+35	0.2396	0.24	O				
79+40	0.2392	0.24	O				
79+45	0.2389	0.24	O				
79+50	0.2385	0.24	O				
79+55	0.2382	0.24	O				
80+ 0	0.2378	0.24	O				
80+ 5	0.2375	0.24	O				
80+10	0.2371	0.24	O				
80+15	0.2368	0.24	O				
80+20	0.2364	0.24	O				
80+25	0.2361	0.24	O				
80+30	0.2357	0.24	O				
80+35	0.2354	0.23	O				
80+40	0.2350	0.23	O				
80+45	0.2347	0.23	O				
80+50	0.2344	0.23	O				
80+55	0.2340	0.23	O				
81+ 0	0.2337	0.23	O				
81+ 5	0.2333	0.23	O				
81+10	0.2330	0.23	O				
81+15	0.2327	0.23	O				
81+20	0.2323	0.23	O				
81+25	0.2320	0.23	O				
81+30	0.2316	0.23	O				
81+35	0.2313	0.23	O				
81+40	0.2310	0.23	O				
81+45	0.2306	0.23	O				
81+50	0.2303	0.23	O				
81+55	0.2299	0.23	O				
82+ 0	0.2296	0.23	O				
82+ 5	0.2293	0.23	O				
82+10	0.2289	0.23	O				
82+15	0.2286	0.23	O				
82+20	0.2283	0.23	O				
82+25	0.2279	0.23	O				
82+30	0.2276	0.23	O				
82+35	0.2273	0.23	O				
82+40	0.2269	0.23	O				
82+45	0.2266	0.23	O				
82+50	0.2263	0.23	O				
82+55	0.2259	0.23	O				
83+ 0	0.2256	0.23	O				
83+ 5	0.2253	0.22	O				
83+10	0.2250	0.22	O				
83+15	0.2246	0.22	O				
83+20	0.2243	0.22	O				
83+25	0.2240	0.22	O				
83+30	0.2236	0.22	O				
83+35	0.2233	0.22	O				
83+40	0.2230	0.22	O				
83+45	0.2227	0.22	O				
83+50	0.2223	0.22	O				
83+55	0.2220	0.22	O				

84+ 0	0.2217	0.22	O				
84+ 5	0.2214	0.22	O				
84+10	0.2210	0.22	O				
84+15	0.2207	0.22	O				
84+20	0.2204	0.22	O				
84+25	0.2201	0.22	O				
84+30	0.2197	0.22	O				
84+35	0.2194	0.22	O				
84+40	0.2191	0.22	O				
84+45	0.2188	0.22	O				
84+50	0.2185	0.22	O				
84+55	0.2181	0.22	O				
85+ 0	0.2178	0.22	O				
85+ 5	0.2175	0.22	O				
85+10	0.2172	0.22	O				
85+15	0.2169	0.22	O				
85+20	0.2166	0.22	O				
85+25	0.2162	0.22	O				
85+30	0.2159	0.22	O				
85+35	0.2156	0.22	O				
85+40	0.2153	0.21	O				
85+45	0.2150	0.21	O				
85+50	0.2147	0.21	O				
85+55	0.2143	0.21	O				
86+ 0	0.2140	0.21	O				
86+ 5	0.2137	0.21	O				
86+10	0.2134	0.21	O				
86+15	0.2131	0.21	O				
86+20	0.2128	0.21	O				
86+25	0.2125	0.21	O				
86+30	0.2122	0.21	O				
86+35	0.2119	0.21	O				
86+40	0.2115	0.21	O				
86+45	0.2112	0.21	O				
86+50	0.2109	0.21	O				
86+55	0.2106	0.21	O				
87+ 0	0.2103	0.21	O				
87+ 5	0.2100	0.21	O				
87+10	0.2097	0.21	O				
87+15	0.2094	0.21	O				
87+20	0.2091	0.21	O				
87+25	0.2088	0.21	O				
87+30	0.2085	0.21	O				
87+35	0.2082	0.21	O				
87+40	0.2079	0.21	O				
87+45	0.2076	0.21	O				
87+50	0.2073	0.21	O				
87+55	0.2069	0.21	O				
88+ 0	0.2066	0.21	O				
88+ 5	0.2063	0.21	O				
88+10	0.2060	0.21	O				
88+15	0.2057	0.21	O				
88+20	0.2054	0.21	O				
88+25	0.2051	0.20	O				

88+30	0.2048	0.20	O				
88+35	0.2045	0.20	O				
88+40	0.2042	0.20	O				
88+45	0.2039	0.20	O				
88+50	0.2036	0.20	O				
88+55	0.2033	0.20	O				
89+ 0	0.2030	0.20	O				
89+ 5	0.2028	0.20	O				
89+10	0.2025	0.20	O				
89+15	0.2022	0.20	O				
89+20	0.2019	0.20	O				
89+25	0.2016	0.20	O				
89+30	0.2013	0.20	O				
89+35	0.2010	0.20	O				
89+40	0.2007	0.20	O				
89+45	0.2004	0.20	O				
89+50	0.2001	0.20	O				
89+55	0.1998	0.20	O				
90+ 0	0.1995	0.20	O				
90+ 5	0.1992	0.20	O				
90+10	0.1989	0.20	O				
90+15	0.1986	0.20	O				
90+20	0.1983	0.20	O				
90+25	0.1981	0.20	O				
90+30	0.1978	0.20	O				
90+35	0.1975	0.20	O				
90+40	0.1972	0.20	O				
90+45	0.1969	0.20	O				
90+50	0.1966	0.20	O				
90+55	0.1963	0.20	O				
91+ 0	0.1960	0.20	O				
91+ 5	0.1958	0.20	O				
91+10	0.1955	0.20	O				
91+15	0.1952	0.19	O				
91+20	0.1949	0.19	O				
91+25	0.1946	0.19	O				
91+30	0.1943	0.19	O				
91+35	0.1940	0.19	O				
91+40	0.1938	0.19	O				
91+45	0.1935	0.19	O				
91+50	0.1932	0.19	O				
91+55	0.1929	0.19	O				
92+ 0	0.1926	0.19	O				
92+ 5	0.1923	0.19	O				
92+10	0.1921	0.19	O				
92+15	0.1918	0.19	O				
92+20	0.1915	0.19	O				
92+25	0.1912	0.19	O				
92+30	0.1909	0.19	O				
92+35	0.1907	0.19	O				
92+40	0.1904	0.19	O				
92+45	0.1901	0.19	O				
92+50	0.1898	0.19	O				
92+55	0.1896	0.19	O				

93+ 0	0.1893	0.19	O				
93+ 5	0.1890	0.19	O				
93+10	0.1887	0.19	O				
93+15	0.1884	0.19	O				
93+20	0.1882	0.19	O				
93+25	0.1879	0.19	O				
93+30	0.1876	0.19	O				
93+35	0.1873	0.19	O				
93+40	0.1871	0.19	O				
93+45	0.1868	0.19	O				
93+50	0.1865	0.19	O				
93+55	0.1863	0.19	O				
94+ 0	0.1860	0.19	O				
94+ 5	0.1857	0.19	O				
94+10	0.1854	0.19	O				
94+15	0.1852	0.18	O				
94+20	0.1849	0.18	O				
94+25	0.1846	0.18	O				
94+30	0.1844	0.18	O				
94+35	0.1841	0.18	O				
94+40	0.1838	0.18	O				
94+45	0.1835	0.18	O				
94+50	0.1833	0.18	O				
94+55	0.1830	0.18	O				
95+ 0	0.1827	0.18	O				
95+ 5	0.1825	0.18	O				
95+10	0.1822	0.18	O				
95+15	0.1819	0.18	O				
95+20	0.1817	0.18	O				
95+25	0.1814	0.18	O				
95+30	0.1811	0.18	O				
95+35	0.1809	0.18	O				
95+40	0.1806	0.18	O				
95+45	0.1804	0.18	O				
95+50	0.1800	0.18	O				
95+55	0.1795	0.18	O				
96+ 0	0.1789	0.18	O				
96+ 5	0.1783	0.18	O				
96+10	0.1776	0.18	O				
96+15	0.1770	0.18	O				
96+20	0.1763	0.18	O				
96+25	0.1757	0.17	O				
96+30	0.1750	0.17	O				
96+35	0.1744	0.17	O				
96+40	0.1738	0.17	O				
96+45	0.1731	0.17	O				
96+50	0.1725	0.17	O				
96+55	0.1719	0.17	O				
97+ 0	0.1713	0.17	O				
97+ 5	0.1706	0.17	O				
97+10	0.1700	0.17	O				
97+15	0.1694	0.17	O				
97+20	0.1688	0.17	O				
97+25	0.1682	0.17	O				

97+30	0.1676	0.17	|O	|	|	|	|
97+35	0.1670	0.17	|O	|	|	|	|
97+40	0.1663	0.17	|O	|	|	|	|
97+45	0.1657	0.16	|O	|	|	|	|
97+50	0.1651	0.16	|O	|	|	|	|
97+55	0.1645	0.16	IO	|	|	|	|
98+ 0	0.1639	0.16	O	|	|	|	|
98+ 5	0.1633	0.16	O	|	|	|	|
98+10	0.1628	0.16	O	|	|	|	|
98+15	0.1622	0.16	O	|	|	|	|
98+20	0.1616	0.16	O	|	|	|	|
98+25	0.1610	0.16	O	|	|	|	|
98+30	0.1604	0.16	O	|	|	|	|
98+35	0.1598	0.16	O	|	|	|	|
98+40	0.1592	0.16	O	|	|	|	|
98+45	0.1587	0.16	O	|	|	|	|
98+50	0.1581	0.16	O	|	|	|	|
98+55	0.1575	0.16	O	|	|	|	|
99+ 0	0.1569	0.16	O	|	|	|	|
99+ 5	0.1564	0.16	O	|	|	|	|
99+10	0.1558	0.16	O	|	|	|	|
99+15	0.1552	0.15	O	|	|	|	|
99+20	0.1547	0.15	O	|	|	|	|
99+25	0.1541	0.15	O	|	|	|	|
99+30	0.1535	0.15	O	|	|	|	|
99+35	0.1530	0.15	O	|	|	|	|
99+40	0.1524	0.15	O	|	|	|	|
99+45	0.1519	0.15	O	|	|	|	|
99+50	0.1513	0.15	O	|	|	|	|
99+55	0.1508	0.15	O	|	|	|	|
100+ 0	0.1502	0.15	O	|	|	|	|
100+ 5	0.1497	0.15	O	|	|	|	|
100+10	0.1491	0.15	O	|	|	|	|
100+15	0.1486	0.15	O	|	|	|	|
100+20	0.1481	0.15	O	|	|	|	|
100+25	0.1475	0.15	O	|	|	|	|
100+30	0.1470	0.15	O	|	|	|	|
100+35	0.1464	0.15	O	|	|	|	|
100+40	0.1459	0.15	O	|	|	|	|
100+45	0.1454	0.14	O	|	|	|	|
100+50	0.1449	0.14	O	|	|	|	|
100+55	0.1443	0.14	O	|	|	|	|
101+ 0	0.1438	0.14	O	|	|	|	|
101+ 5	0.1432	0.14	O	|	|	|	|
101+10	0.1423	0.14	O	|	|	|	|
101+15	0.1412	0.14	O	|	|	|	|
101+20	0.1401	0.14	O	|	|	|	|
101+25	0.1390	0.14	O	|	|	|	|
101+30	0.1378	0.14	O	|	|	|	|
101+35	0.1367	0.14	O	|	|	|	|
101+40	0.1356	0.13	O	|	|	|	|
101+45	0.1345	0.13	O	|	|	|	|
101+50	0.1333	0.13	O	|	|	|	|
101+55	0.1323	0.13	O	|	|	|	|

102+ 0	0.1312	0.13	O	|	|	|	|
102+ 5	0.1301	0.13	O	|	|	|	|
102+10	0.1290	0.13	O	|	|	|	|
102+15	0.1280	0.13	O	|	|	|	|
102+20	0.1269	0.13	O	|	|	|	|
102+25	0.1259	0.12	O	|	|	|	|
102+30	0.1248	0.12	O	|	|	|	|
102+35	0.1238	0.12	O	|	|	|	|
102+40	0.1228	0.12	O	|	|	|	|
102+45	0.1218	0.12	O	|	|	|	|
102+50	0.1208	0.12	O	|	|	|	|
102+55	0.1198	0.12	O	|	|	|	|
103+ 0	0.1188	0.12	O	|	|	|	|
103+ 5	0.1178	0.12	O	|	|	|	|
103+10	0.1168	0.12	O	|	|	|	|
103+15	0.1159	0.11	O	|	|	|	|
103+20	0.1149	0.11	O	|	|	|	|
103+25	0.1140	0.11	O	|	|	|	|
103+30	0.1130	0.11	O	|	|	|	|
103+35	0.1121	0.11	O	|	|	|	|
103+40	0.1112	0.11	O	|	|	|	|
103+45	0.1103	0.11	O	|	|	|	|
103+50	0.1094	0.11	O	|	|	|	|
103+55	0.1085	0.11	O	|	|	|	|
104+ 0	0.1076	0.11	O	|	|	|	|
104+ 5	0.1067	0.11	O	|	|	|	|
104+10	0.1058	0.10	O	|	|	|	|
104+15	0.1049	0.10	O	|	|	|	|
104+20	0.1041	0.10	O	|	|	|	|
104+25	0.1032	0.10	O	|	|	|	|
104+30	0.1024	0.10	O	|	|	|	|
104+35	0.1015	0.10	O	|	|	|	|
104+40	0.1007	0.10	O	|	|	|	|
104+45	0.0999	0.10	O	|	|	|	|
104+50	0.0990	0.10	O	|	|	|	|
104+55	0.0982	0.10	O	|	|	|	|
105+ 0	0.0974	0.10	O	|	|	|	|
105+ 5	0.0966	0.10	O	|	|	|	|
105+10	0.0957	0.09	O	|	|	|	|
105+15	0.0943	0.09	O	|	|	|	|
105+20	0.0918	0.09	O	|	|	|	|
105+25	0.0890	0.09	O	|	|	|	|
105+30	0.0862	0.08	O	|	|	|	|
105+35	0.0835	0.08	O	|	|	|	|
105+40	0.0808	0.08	O	|	|	|	|
105+45	0.0782	0.07	O	|	|	|	|
105+50	0.0757	0.07	O	|	|	|	|
105+55	0.0732	0.07	O	|	|	|	|
106+ 0	0.0709	0.07	O	|	|	|	|
106+ 5	0.0686	0.07	O	|	|	|	|
106+10	0.0664	0.06	O	|	|	|	|
106+15	0.0642	0.06	O	|	|	|	|
106+20	0.0622	0.06	O	|	|	|	|
106+25	0.0602	0.06	O	|	|	|	|

106+30	0.0582	0.06	O	|	|	|	|
106+35	0.0564	0.05	O	|	|	|	|
106+40	0.0546	0.05	O	|	|	|	|
106+45	0.0528	0.05	O	|	|	|	|
106+50	0.0511	0.05	O	|	|	|	|
106+55	0.0495	0.05	O	|	|	|	|
107+ 0	0.0479	0.05	O	|	|	|	|
107+ 5	0.0463	0.04	O	|	|	|	|
107+10	0.0448	0.04	O	|	|	|	|
107+15	0.0434	0.04	O	|	|	|	|
107+20	0.0420	0.04	O	|	|	|	|
107+25	0.0406	0.04	O	|	|	|	|
107+30	0.0393	0.04	O	|	|	|	|
107+35	0.0381	0.04	O	|	|	|	|
107+40	0.0368	0.04	O	|	|	|	|
107+45	0.0357	0.03	O	|	|	|	|
107+50	0.0345	0.03	O	|	|	|	|
107+55	0.0334	0.03	O	|	|	|	|
108+ 0	0.0323	0.03	O	|	|	|	|
108+ 5	0.0313	0.03	O	|	|	|	|
108+10	0.0303	0.03	O	|	|	|	|
108+15	0.0293	0.03	O	|	|	|	|
108+20	0.0284	0.03	O	|	|	|	|
108+25	0.0274	0.03	O	|	|	|	|
108+30	0.0266	0.03	O	|	|	|	|
108+35	0.0257	0.02	O	|	|	|	|
108+40	0.0249	0.02	O	|	|	|	|
108+45	0.0241	0.02	O	|	|	|	|
108+50	0.0233	0.02	O	|	|	|	|
108+55	0.0226	0.02	O	|	|	|	|
109+ 0	0.0218	0.02	O	|	|	|	|
109+ 5	0.0211	0.02	O	|	|	|	|
109+10	0.0204	0.02	O	|	|	|	|
109+15	0.0198	0.02	O	|	|	|	|
109+20	0.0191	0.02	O	|	|	|	|
109+25	0.0185	0.02	O	|	|	|	|
109+30	0.0179	0.02	O	|	|	|	|
109+35	0.0174	0.02	O	|	|	|	|
109+40	0.0168	0.02	O	|	|	|	|
109+45	0.0163	0.02	O	|	|	|	|
109+50	0.0157	0.02	O	|	|	|	|
109+55	0.0152	0.01	O	|	|	|	|
110+ 0	0.0147	0.01	O	|	|	|	|
110+ 5	0.0143	0.01	O	|	|	|	|
110+10	0.0138	0.01	O	|	|	|	|
110+15	0.0134	0.01	O	|	|	|	|
110+20	0.0129	0.01	O	|	|	|	|
110+25	0.0125	0.01	O	|	|	|	|
110+30	0.0121	0.01	O	|	|	|	|
110+35	0.0117	0.01	O	|	|	|	|
110+40	0.0113	0.01	O	|	|	|	|
110+45	0.0110	0.01	O	|	|	|	|
110+50	0.0106	0.01	O	|	|	|	|
110+55	0.0103	0.01	O	|	|	|	|

111+ 0	0.0100	0.01	O				
111+ 5	0.0096	0.01	O				
111+10	0.0093	0.01	O				
111+15	0.0090	0.01	O				
111+20	0.0087	0.01	O				
111+25	0.0085	0.01	O				
111+30	0.0082	0.01	O				
111+35	0.0079	0.01	O				
111+40	0.0077	0.01	O				
111+45	0.0074	0.01	O				
111+50	0.0072	0.01	O				
111+55	0.0069	0.01	O				
112+ 0	0.0067	0.01	O				
112+ 5	0.0065	0.01	O				
112+10	0.0063	0.01	O				
112+15	0.0061	0.01	O				
112+20	0.0059	0.01	O				
112+25	0.0057	0.01	O				
112+30	0.0055	0.01	O				
112+35	0.0053	0.01	O				
112+40	0.0052	0.00	O				
112+45	0.0050	0.00	O				
112+50	0.0048	0.00	O				
112+55	0.0047	0.00	O				
113+ 0	0.0045	0.00	O				
113+ 5	0.0044	0.00	O				
113+10	0.0043	0.00	O				
113+15	0.0041	0.00	O				
113+20	0.0040	0.00	O				
113+25	0.0039	0.00	O				
113+30	0.0037	0.00	O				
113+35	0.0036	0.00	O				
113+40	0.0035	0.00	O				
113+45	0.0034	0.00	O				
113+50	0.0033	0.00	O				
113+55	0.0032	0.00	O				
114+ 0	0.0031	0.00	O				
114+ 5	0.0030	0.00	O				
114+10	0.0029	0.00	O				
114+15	0.0028	0.00	O				
114+20	0.0027	0.00	O				
114+25	0.0026	0.00	O				
114+30	0.0025	0.00	O				
114+35	0.0024	0.00	O				
114+40	0.0024	0.00	O				
114+45	0.0023	0.00	O				
114+50	0.0022	0.00	O				
114+55	0.0021	0.00	O				
115+ 0	0.0021	0.00	O				
115+ 5	0.0020	0.00	O				
115+10	0.0019	0.00	O				
115+15	0.0019	0.00	O				
115+20	0.0018	0.00	O				
115+25	0.0018	0.00	O				

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115+30        0.0017       0.00  O          |          |          |          |
115+35        0.0016       0.00  O          |          |          |          |
115+40        0.0016       0.00  O          |          |          |          |
115+45        0.0015       0.00  O          |          |          |          |
115+50        0.0015       0.00  O          |          |          |          |
115+55        0.0014       0.00  O          |          |          |          |
116+ 0        0.0014       0.00  O          |          |          |          |
116+ 5        0.0014       0.00  O          |          |          |          |
116+10        0.0013       0.00  O          |          |          |          |
116+15        0.0013       0.00  O          |          |          |          |
116+20        0.0012       0.00  O          |          |          |          |
116+25        0.0012       0.00  O          |          |          |          |
116+30        0.0011       0.00  O          |          |          |          |
116+35        0.0011       0.00  O          |          |          |          |
116+40        0.0011       0.00  O          |          |          |          |
116+45        0.0010       0.00  O          |          |          |          |
116+50        0.0000       0.00  O          |          |          |          |
-----------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
                Number of intervals =  1402
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        6.511 (CFS)
                Total volume =       7.859 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)       0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     ***********************************************************************

     -----------------------------------------------------------------------


     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
     Process from Point/Station        2.000 to Point/Station        2.000
     **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
     _______________________________________________________________________
     ********************** HYDROGRAPH INFORMATION **********************

                From study/file name: 32786A4N242.rte
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                       P R I N T   O F   S T O R M
                    R u n o f f     H y d r o g r a p h
     -----------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

     -----------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0        2.1       4.2       6.4       8.5
  -----------------------------------------------------------------------
    0+ 5       0.0136      0.02  Q          |          |          |          |
    0+10       0.0636      0.10  Q          |          |          |          |
    0+15       0.0905      0.21  qQ         |          |          |          |
    0+20       0.1079      0.31  qQ         |          |          |          |
    0+25       0.1394      0.41  qQ         |          |          |          |
    0+30       0.1571      0.51  q Q        |          |          |          |
```

```
0+35      0.1653      0.58  q Q       |         |         |         |
0+40      0.1707      0.64  q  Q      |         |         |         |
0+45      0.1743      0.67  q  Q      |         |         |         |
0+50      0.1836      0.70  q  Q      |         |         |         |
0+55      0.2106      0.75  q  Q      |         |         |         |
1+ 0      0.2253      0.82  |q Q      |         |         |         |
1+ 5      0.2243      0.86  |q  Q     |         |         |         |
1+10      0.2030      0.85  q   Q     |         |         |         |
1+15      0.1919      0.82  q  Q      |         |         |         |
1+20      0.1880      0.80  q  Q      |         |         |         |
1+25      0.1859      0.79  q  Q      |         |         |         |
1+30      0.1845      0.78  q  Q      |         |         |         |
1+35      0.1836      0.78  q  Q      |         |         |         |
1+40      0.1830      0.77  q  Q      |         |         |         |
1+45      0.1824      0.77  q  Q      |         |         |         |
1+50      0.1887      0.78  q  Q      |         |         |         |
1+55      0.2132      0.82  |q Q      |         |         |         |
2+ 0      0.2265      0.88  |q  Q     |         |         |         |
2+ 5      0.2318      0.92  |q  Q     |         |         |         |
2+10      0.2350      0.94  |q  Q     |         |         |         |
2+15      0.2371      0.96  |q  Q     |         |         |         |
2+20      0.2386      0.97  |q  Q     |         |         |         |
2+25      0.2397      0.98  |q  Q     |         |         |         |
2+30      0.2404      0.99  |q  Q     |         |         |         |
2+35      0.2478      1.00  |q  Q     |         |         |         |
2+40      0.2732      1.05  |q  Q     |         |         |         |
2+45      0.2869      1.10  |q   Q    |         |         |         |
2+50      0.2922      1.14  |q   Q    |         |         |         |
2+55      0.2954      1.17  |q   Q    |         |         |         |
3+ 0      0.2975      1.18  |q   Q    |         |         |         |
3+ 5      0.2990      1.19  |q   Q    |         |         |         |
3+10      0.3001      1.20  |q   Q    |         |         |         |
3+15      0.3008      1.21  |q   Q    |         |         |         |
3+20      0.3014      1.21  |q   Q    |         |         |         |
3+25      0.3018      1.22  |q   Q    |         |         |         |
3+30      0.3020      1.22  |q   Q    |         |         |         |
3+35      0.3020      1.22  |q   Q    |         |         |         |
3+40      0.3020      1.22  |q   Q    |         |         |         |
3+45      0.3020      1.22  |q   Q    |         |         |         |
3+50      0.3088      1.23  |q   Q    |         |         |         |
3+55      0.3338      1.28  |q    Q   |         |         |         |
4+ 0      0.3473      1.33  |q    Q   |         |         |         |
4+ 5      0.3526      1.37  |q    Q   |         |         |         |
4+10      0.3558      1.40  |q    Q   |         |         |         |
4+15      0.3579      1.41  |q    Q   |         |         |         |
4+20      0.3662      1.43  |q    Q   |         |         |         |
4+25      0.3923      1.48  |q    Q   |         |         |         |
4+30      0.4065      1.54  |q     Q  |         |         |         |
4+35      0.4123      1.58  |q     Q  |         |         |         |
4+40      0.4160      1.61  |q     Q  |         |         |         |
4+45      0.4183      1.63  |q     Q  |         |         |         |
4+50      0.4266      1.65  | q    Q  |         |         |         |
4+55      0.4527      1.70  | q     Q |         |         |         |
5+ 0      0.4669      1.76  | q     Q |         |         |         |
```

```
5+ 5        0.4591      1.78  | q     Q |         |         |         |
5+10        0.4128      1.73  |q      Q |         |         |         |
5+15        0.3882      1.64  |q     Q  |         |         |         |
5+20        0.3859      1.58  |q     Q  |         |         |         |
5+25        0.4055      1.59  |q     Q  |         |         |         |
5+30        0.4155      1.62  |q     Q  |         |         |         |
5+35        0.4253      1.65  | q    Q  |         |         |         |
5+40        0.4517      1.71  | q     Q |         |         |         |
5+45        0.4660      1.77  | q     Q |         |         |         |
5+50        0.4717      1.82  | q     Q |         |         |         |
5+55        0.4751      1.84  | q     Q |         |         |         |
6+ 0        0.4776      1.86  | q     Q |         |         |         |
6+ 5        0.4863      1.88  | q     Q |         |         |         |
6+10        0.5128      1.93  | q      Q|         |         |         |
6+15        0.5273      1.99  | q      Q|         |         |         |
6+20        0.5332      2.04  | q      Q|         |         |         |
6+25        0.5368      2.07  | q      Q|         |         |         |
6+30        0.5392      2.08  | q      Q|         |         |         |
6+35        0.5474      2.11  | q      Q|         |         |         |
6+40        0.5735      2.16  | q       Q         |         |         |
6+45        0.5877      2.22  | q       Q         |         |         |
6+50        0.5936      2.26  | q       Q         |         |         |
6+55        0.5972      2.29  | q       Q         |         |         |
7+ 0        0.5996      2.31  | q       Q         |         |         |
7+ 5        0.6010      2.32  | q       Q         |         |         |
7+10        0.6021      2.33  | q       Q         |         |         |
7+15        0.6029      2.34  | q       |Q        |         |         |
7+20        0.6102      2.35  | q       |Q        |         |         |
7+25        0.6356      2.40  |  q      |Q        |         |         |
7+30        0.6493      2.46  |  q      |Q        |         |         |
7+35        0.6615      2.51  |  q      |Q        |         |         |
7+40        0.6897      2.57  |  q      | Q       |         |         |
7+45        0.7052      2.65  |  q      | Q       |         |         |
7+50        0.7188      2.71  |  q      | Q       |         |         |
7+55        0.7481      2.78  |  q      |  Q      |         |         |
8+ 0        0.7644      2.85  |  q      |  Q      |         |         |
8+ 5        0.7853      2.93  |  q      |  Q      |         |         |
8+10        0.8401      3.04  |  q      |   Q     |         |         |
8+15        0.8701      3.17  |   q     |   Q     |         |         |
8+20        0.8827      3.27  |   q     |    Q    |         |         |
8+25        0.8907      3.33  |   q     |    Q    |         |         |
8+30        0.8959      3.36  |   q     |    Q    |         |         |
8+35        0.9061      3.40  |   q     |     Q   |         |         |
8+40        0.9337      3.46  |   q     |     Q   |         |         |
8+45        0.9490      3.52  |   q     |     Q   |         |         |
8+50        0.9621      3.58  |   q     |     Q   |         |         |
8+55        0.9912      3.65  |   q     |      Q  |         |         |
9+ 0        1.0073      3.73  |   q     |      Q  |         |         |
9+ 5        1.0276      3.80  |   q     |      Q  |         |         |
9+10        1.0819      3.91  |    q    |       Q |         |         |
9+15        1.1117      4.04  |    q    |        Q|         |         |
9+20        1.1311      4.14  |    q    |        Q|         |         |
9+25        1.1641      4.24  |    q    |         Q         |         |
9+30        1.1828      4.33  |    q    |         Q         |         |
```

9+35	1.1983	4.40	
9+40	1.2291	4.48	
9+45	1.2465	4.56	
9+50	1.2611	4.63	
9+55	1.2913	4.71	
10+ 0	1.3081	4.78	
10+ 5	1.2677	4.78	
10+10	1.0976	4.53	
10+15	1.0065	4.18	
10+20	0.9712	3.92	
10+25	0.9502	3.78	
10+30	0.9364	3.70	
10+35	0.9609	3.70	
10+40	1.0786	3.89	
10+45	1.1408	4.16	
10+50	1.1637	4.36	
10+55	1.1767	4.49	
11+ 0	1.1856	4.58	
11+ 5	1.1860	4.64	
11+10	1.1665	4.66	
11+15	1.1569	4.65	
11+20	1.1542	4.65	
11+25	1.1532	4.67	
11+30	1.1522	4.69	
11+35	1.1372	4.70	
11+40	1.0861	4.64	
11+45	1.0584	4.56	
11+50	1.0541	4.52	
11+55	1.0722	4.53	
12+ 0	1.0812	4.58	
12+ 5	1.1313	4.69	
12+10	1.3072	5.01	
12+15	1.4020	5.42	
12+20	1.4464	5.74	
12+25	1.4942	5.98	
12+30	1.5227	6.16	
12+35	1.5523	6.32	
12+40	1.6135	6.51	
12+45	1.6482	6.70	
12+50	1.6708	6.85	
12+55	1.7064	7.00	
13+ 0	1.7265	7.14	
13+ 5	1.7692	7.29	
13+10	1.9000	7.58	
13+15	1.9712	7.92	
13+20	2.0002	8.17	
13+25	2.0183	8.35	
13+30	2.0301	8.47	
13+35	1.9630	8.47	
13+40	1.6941	8.10	
13+45	1.5500	7.58	
13+50	1.4942	7.20	
13+55	1.4609	7.00	
14+ 0	1.4389	6.88	

14+ 5	1.4503	6.86	
14+10	1.5382	6.99	
14+15	1.5836	7.19	
14+20	1.5922	7.33	
14+25	1.5753	7.39	
14+30	1.5677	7.41	
14+35	1.5682	7.43	
14+40	1.5693	7.45	
14+45	1.5703	7.48	
14+50	1.5642	7.51	
14+55	1.5398	7.50	
15+ 0	1.5265	7.48	
15+ 5	1.5139	7.46	
15+10	1.4852	7.42	
15+15	1.4694	7.38	
15+20	1.4559	7.34	
15+25	1.4266	7.29	
15+30	1.4102	7.23	
15+35	1.3757	7.16	
15+40	1.2710	6.98	
15+45	1.2140	6.76	
15+50	1.1908	6.60	
15+55	1.1764	6.51	
16+ 0	1.1669	6.46	
16+ 5	1.0585	6.30	
16+10	0.6790	5.67	
16+15	0.4737	4.85	
16+20	0.3919	4.26	
16+25	0.3418	3.90	
16+30	0.3092	3.68	
16+35	0.2807	3.54	
16+40	0.2394	3.40	
16+45	0.2143	3.27	
16+50	0.2011	3.18	
16+55	0.1913	3.12	
17+ 0	0.1857	3.07	
17+ 5	0.1979	3.06	
17+10	0.2468	3.13	
17+15	0.2729	3.22	
17+20	0.2830	3.28	
17+25	0.2890	3.32	
17+30	0.2930	3.34	
17+35	0.2959	3.35	
17+40	0.2981	3.36	
17+45	0.2996	3.36	
17+50	0.2939	3.35	
17+55	0.2698	3.31	
18+ 0	0.2568	3.25	
18+ 5	0.2515	3.21	
18+10	0.2482	3.17	
18+15	0.2461	3.15	
18+20	0.2447	3.13	
18+25	0.2436	3.12	
18+30	0.2428	3.10	

```
18+35      0.2355     3.08  |q        |   Q     |         |         |
18+40      0.2101     3.03  q         |   Q     |         |         |
18+45      0.1964     2.96  q         |  Q      |         |         |
18+50      0.1842     2.90  q         |  Q      |         |         |
18+55      0.1560     2.82  q         |  Q      |         |         |
19+ 0      0.1405     2.74  q         | Q       |         |         |
19+ 5      0.1405     2.69  q         | Q       |         |         |
19+10      0.1612     2.69  q         | Q       |         |         |
19+15      0.1718     2.72  q         | Q       |         |         |
19+20      0.1819     2.74  q         | Q       |         |         |
19+25      0.2086     2.78  q         |  Q      |         |         |
19+30      0.2232     2.83  |q        |  Q      |         |         |
19+35      0.2226     2.86  |q        |  Q      |         |         |
19+40      0.2015     2.83  q         |  Q      |         |         |
19+45      0.1907     2.79  q         |  Q      |         |         |
19+50      0.1805     2.74  q         | Q       |         |         |
19+55      0.1538     2.67  q         | Q       |         |         |
20+ 0      0.1393     2.60  q         | Q       |         |         |
20+ 5      0.1399     2.55  q         | Q       |         |         |
20+10      0.1610     2.56  q         | Q       |         |         |
20+15      0.1718     2.58  q         | Q       |         |         |
20+20      0.1751     2.60  q         | Q       |         |         |
20+25      0.1768     2.60  q         | Q       |         |         |
20+30      0.1779     2.60  q         | Q       |         |         |
20+35      0.1788     2.60  q         | Q       |         |         |
20+40      0.1795     2.59  q         | Q       |         |         |
20+45      0.1800     2.58  q         | Q       |         |         |
20+50      0.1737     2.57  q         | Q       |         |         |
20+55      0.1492     2.52  q         |Q        |         |         |
21+ 0      0.1360     2.45  q         |Q        |         |         |
21+ 5      0.1375     2.41  q         |Q        |         |         |
21+10      0.1592     2.42  q         |Q        |         |         |
21+15      0.1706     2.45  q         |Q        |         |         |
21+20      0.1676     2.46  q         |Q        |         |         |
21+25      0.1448     2.43  q         |Q        |         |         |
21+30      0.1327     2.38  q         |Q        |         |         |
21+35      0.1351     2.34  q         |Q        |         |         |
21+40      0.1575     2.35  q         |Q        |         |         |
21+45      0.1694     2.38  q         |Q        |         |         |
21+50      0.1670     2.40  q         |Q        |         |         |
21+55      0.1446     2.37  q         |Q        |         |         |
22+ 0      0.1327     2.31  q         Q         |         |         |
22+ 5      0.1351     2.28  q         Q         |         |         |
22+10      0.1575     2.29  q         Q         |         |         |
22+15      0.1694     2.33  q         Q         |         |         |
22+20      0.1670     2.34  q         |Q        |         |         |
22+25      0.1446     2.31  q         Q         |         |         |
22+30      0.1327     2.26  q         Q         |         |         |
22+35      0.1283     2.22  q         Q         |         |         |
22+40      0.1257     2.19  q         Q         |         |         |
22+45      0.1241     2.17  q         Q         |         |         |
22+50      0.1232     2.15  q         Q         |         |         |
22+55      0.1226     2.14  q         Q         |         |         |
23+ 0      0.1220     2.12  q         Q         |         |         |
```

23+ 5	0.1215	2.11	q	Q			
23+10	0.1210	2.10	q	Q			
23+15	0.1208	2.09	q	Q			
23+20	0.1208	2.08	q	Q			
23+25	0.1208	2.07	q	Q			
23+30	0.1208	2.06	q	Q			
23+35	0.1208	2.05	q	Q			
23+40	0.1208	2.04	q	Q			
23+45	0.1208	2.03	q	Q			
23+50	0.1208	2.02	q	Q			
23+55	0.1208	2.02	q	Q			
24+ 0	0.1208	2.01	q	Q			
24+ 5	0.1072	1.98	q	Q			
24+10	0.0572	1.89	q	Q			
24+15	0.0303	1.77	q	Q			
24+20	0.0197	1.68	q	Q			
24+25	0.0132	1.63	q	Q			
24+30	0.0090	1.59	q	Q			
24+35	0.0061	1.56	q	Q			
24+40	0.0039	1.54	q	Q			
24+45	0.0024	1.52	q	Q			
24+50	0.0013	1.50	q	Q			
24+55	0.0005	1.48	q	Q			
25+ 0	0.0000	1.47	q	Q			
25+ 5	0.0000	1.45	q	Q			
25+10	0.0000	1.44	q	Q			
25+15	0.0000	1.43	q	Q			
25+20	0.0000	1.42	q	Q			
25+25	0.0000	1.41	q	Q			
25+30	0.0000	1.40	q	Q			
25+35	0.0000	1.39	q	Q			
25+40	0.0000	1.37	q	Q			
25+45	0.0000	1.36	q	Q			
25+50	0.0000	1.35	q	Q			
25+55	0.0000	1.34	q	Q			
26+ 0	0.0000	1.33	q	Q			
26+ 5	0.0000	1.32	q	Q			
26+10	0.0000	1.31	q	Q			
26+15	0.0000	1.30	q	Q			
26+20	0.0000	1.29	q	Q			
26+25	0.0000	1.28	q	Q			
26+30	0.0000	1.27	q	Q			
26+35	0.0000	1.26	q	Q			
26+40	0.0000	1.25	q	Q			
26+45	0.0000	1.24	q	Q			
26+50	0.0000	1.23	q	Q			
26+55	0.0000	1.22	q	Q			
27+ 0	0.0000	1.21	q	Q			
27+ 5	0.0000	1.20	q	Q			
27+10	0.0000	1.19	q	Q			
27+15	0.0000	1.19	q	Q			
27+20	0.0000	1.18	q	Q			
27+25	0.0000	1.17	q	Q			
27+30	0.0000	1.16	q	Q			

27+35	0.0000	1.15	q	Q			
27+40	0.0000	1.14	q	Q			
27+45	0.0000	1.13	q	Q			
27+50	0.0000	1.12	q	Q			
27+55	0.0000	1.11	q	Q			
28+ 0	0.0000	1.10	q	Q			
28+ 5	0.0000	1.10	q	Q			
28+10	0.0000	1.09	q	Q			
28+15	0.0000	1.08	q	Q			
28+20	0.0000	1.07	q	Q			
28+25	0.0000	1.06	q	Q			
28+30	0.0000	1.05	q	Q			
28+35	0.0000	1.05	q	Q			
28+40	0.0000	1.04	q	Q			
28+45	0.0000	1.03	q	Q			
28+50	0.0000	1.02	q	Q			
28+55	0.0000	1.01	q	Q			
29+ 0	0.0000	1.01	q	Q			
29+ 5	0.0000	1.00	q	Q			
29+10	0.0000	0.99	q	Q			
29+15	0.0000	0.98	q	Q			
29+20	0.0000	0.97	q	Q			
29+25	0.0000	0.97	q	Q			
29+30	0.0000	0.96	q	Q			
29+35	0.0000	0.95	q	Q			
29+40	0.0000	0.94	q	Q			
29+45	0.0000	0.94	q	Q			
29+50	0.0000	0.93	q	Q			
29+55	0.0000	0.92	q	Q			
30+ 0	0.0000	0.92	q	Q			
30+ 5	0.0000	0.91	q	Q			
30+10	0.0000	0.90	q	Q			
30+15	0.0000	0.89	q	Q			
30+20	0.0000	0.89	q	Q			
30+25	0.0000	0.88	q	Q			
30+30	0.0000	0.87	q	Q			
30+35	0.0000	0.87	q	Q			
30+40	0.0000	0.86	q	Q			
30+45	0.0000	0.85	q	Q			
30+50	0.0000	0.85	q	Q			
30+55	0.0000	0.84	q	Q			
31+ 0	0.0000	0.83	q	Q			
31+ 5	0.0000	0.83	q	Q			
31+10	0.0000	0.82	q	Q			
31+15	0.0000	0.82	q	Q			
31+20	0.0000	0.81	q	Q			
31+25	0.0000	0.80	q	Q			
31+30	0.0000	0.80	q	Q			
31+35	0.0000	0.79	q	Q			
31+40	0.0000	0.78	q	Q			
31+45	0.0000	0.78	q	Q			
31+50	0.0000	0.77	q	Q			
31+55	0.0000	0.77	q	Q			
32+ 0	0.0000	0.76	q	Q			

32+ 5	0.0000	0.75	q	Q			
32+10	0.0000	0.75	q	Q			
32+15	0.0000	0.74	q	Q			
32+20	0.0000	0.74	q	Q			
32+25	0.0000	0.73	q	Q			
32+30	0.0000	0.73	q	Q			
32+35	0.0000	0.72	q	Q			
32+40	0.0000	0.72	q	Q			
32+45	0.0000	0.71	q	Q			
32+50	0.0000	0.70	q	Q			
32+55	0.0000	0.70	q	Q			
33+ 0	0.0000	0.69	q	Q			
33+ 5	0.0000	0.69	q	Q			
33+10	0.0000	0.68	q	Q			
33+15	0.0000	0.68	q	Q			
33+20	0.0000	0.67	q	Q			
33+25	0.0000	0.67	q	Q			
33+30	0.0000	0.66	q	Q			
33+35	0.0000	0.66	q	Q			
33+40	0.0000	0.65	q	Q			
33+45	0.0000	0.65	q	Q			
33+50	0.0000	0.64	q	Q			
33+55	0.0000	0.64	q	Q			
34+ 0	0.0000	0.63	q	Q			
34+ 5	0.0000	0.63	q	Q			
34+10	0.0000	0.62	q	Q			
34+15	0.0000	0.62	q	Q			
34+20	0.0000	0.61	q	Q			
34+25	0.0000	0.61	q	Q			
34+30	0.0000	0.60	q	Q			
34+35	0.0000	0.60	q	Q			
34+40	0.0000	0.59	q	Q			
34+45	0.0000	0.59	q	Q			
34+50	0.0000	0.59	q	Q			
34+55	0.0000	0.58	q	Q			
35+ 0	0.0000	0.58	q	Q			
35+ 5	0.0000	0.57	q	Q			
35+10	0.0000	0.57	q	Q			
35+15	0.0000	0.56	q	Q			
35+20	0.0000	0.56	q	Q			
35+25	0.0000	0.55	q	Q			
35+30	0.0000	0.55	q	Q			
35+35	0.0000	0.55	q	Q			
35+40	0.0000	0.54	q	Q			
35+45	0.0000	0.54	q	Q			
35+50	0.0000	0.53	q	Q			
35+55	0.0000	0.53	q	Q			
36+ 0	0.0000	0.53	q	Q			
36+ 5	0.0000	0.52	q	Q			
36+10	0.0000	0.52	q	Q			
36+15	0.0000	0.51	q	Q			
36+20	0.0000	0.51	q	Q			
36+25	0.0000	0.51	q	Q			
36+30	0.0000	0.50	q	Q			

36+35	0.0000	0.50	q Q				
36+40	0.0000	0.49	q Q				
36+45	0.0000	0.49	q Q				
36+50	0.0000	0.49	q Q				
36+55	0.0000	0.48	q Q				
37+ 0	0.0000	0.48	q Q				
37+ 5	0.0000	0.48	q Q				
37+10	0.0000	0.47	q Q				
37+15	0.0000	0.47	q Q				
37+20	0.0000	0.46	q Q				
37+25	0.0000	0.46	q Q				
37+30	0.0000	0.46	q Q				
37+35	0.0000	0.45	q Q				
37+40	0.0000	0.45	q Q				
37+45	0.0000	0.45	q Q				
37+50	0.0000	0.44	q Q				
37+55	0.0000	0.44	q Q				
38+ 0	0.0000	0.44	q Q				
38+ 5	0.0000	0.43	q Q				
38+10	0.0000	0.43	q Q				
38+15	0.0000	0.43	q Q				
38+20	0.0000	0.43	q Q				
38+25	0.0000	0.43	q Q				
38+30	0.0000	0.43	q Q				
38+35	0.0000	0.43	q Q				
38+40	0.0000	0.43	q Q				
38+45	0.0000	0.43	q Q				
38+50	0.0000	0.43	q Q				
38+55	0.0000	0.43	q Q				
39+ 0	0.0000	0.43	q Q				
39+ 5	0.0000	0.43	q Q				
39+10	0.0000	0.43	q Q				
39+15	0.0000	0.43	q Q				
39+20	0.0000	0.43	q Q				
39+25	0.0000	0.42	q Q				
39+30	0.0000	0.42	q Q				
39+35	0.0000	0.42	q Q				
39+40	0.0000	0.42	q Q				
39+45	0.0000	0.42	qQ				
39+50	0.0000	0.42	qQ				
39+55	0.0000	0.42	qQ				
40+ 0	0.0000	0.42	qQ				
40+ 5	0.0000	0.42	qQ				
40+10	0.0000	0.42	qQ				
40+15	0.0000	0.42	qQ				
40+20	0.0000	0.42	qQ				
40+25	0.0000	0.42	qQ				
40+30	0.0000	0.42	qQ				
40+35	0.0000	0.42	qQ				
40+40	0.0000	0.42	qQ				
40+45	0.0000	0.42	qQ				
40+50	0.0000	0.42	qQ				
40+55	0.0000	0.42	qQ				
41+ 0	0.0000	0.42	qQ				

41+ 5	0.0000	0.42	qQ				
41+10	0.0000	0.42	qQ				
41+15	0.0000	0.42	qQ				
41+20	0.0000	0.42	qQ				
41+25	0.0000	0.42	qQ				
41+30	0.0000	0.42	qQ				
41+35	0.0000	0.42	qQ				
41+40	0.0000	0.42	qQ				
41+45	0.0000	0.42	qQ				
41+50	0.0000	0.41	qQ				
41+55	0.0000	0.41	qQ				
42+ 0	0.0000	0.41	qQ				
42+ 5	0.0000	0.41	qQ				
42+10	0.0000	0.41	qQ				
42+15	0.0000	0.41	qQ				
42+20	0.0000	0.41	qQ				
42+25	0.0000	0.41	qQ				
42+30	0.0000	0.41	qQ				
42+35	0.0000	0.41	qQ				
42+40	0.0000	0.41	qQ				
42+45	0.0000	0.41	qQ				
42+50	0.0000	0.41	qQ				
42+55	0.0000	0.41	qQ				
43+ 0	0.0000	0.41	qQ				
43+ 5	0.0000	0.41	qQ				
43+10	0.0000	0.41	qQ				
43+15	0.0000	0.41	qQ				
43+20	0.0000	0.41	qQ				
43+25	0.0000	0.41	qQ				
43+30	0.0000	0.41	qQ				
43+35	0.0000	0.41	qQ				
43+40	0.0000	0.41	qQ				
43+45	0.0000	0.41	qQ				
43+50	0.0000	0.41	qQ				
43+55	0.0000	0.41	qQ				
44+ 0	0.0000	0.41	qQ				
44+ 5	0.0000	0.41	qQ				
44+10	0.0000	0.41	qQ				
44+15	0.0000	0.41	qQ				
44+20	0.0000	0.40	qQ				
44+25	0.0000	0.40	qQ				
44+30	0.0000	0.40	qQ				
44+35	0.0000	0.40	qQ				
44+40	0.0000	0.40	qQ				
44+45	0.0000	0.40	qQ				
44+50	0.0000	0.40	qQ				
44+55	0.0000	0.40	qQ				
45+ 0	0.0000	0.40	qQ				
45+ 5	0.0000	0.40	qQ				
45+10	0.0000	0.40	qQ				
45+15	0.0000	0.40	qQ				
45+20	0.0000	0.40	qQ				
45+25	0.0000	0.40	qQ				
45+30	0.0000	0.40	qQ				

45+35	0.0000	0.40	qQ				
45+40	0.0000	0.40	qQ				
45+45	0.0000	0.40	qQ				
45+50	0.0000	0.40	qQ				
45+55	0.0000	0.40	qQ				
46+ 0	0.0000	0.40	qQ				
46+ 5	0.0000	0.40	qQ				
46+10	0.0000	0.40	qQ				
46+15	0.0000	0.40	qQ				
46+20	0.0000	0.40	qQ				
46+25	0.0000	0.40	qQ				
46+30	0.0000	0.40	qQ				
46+35	0.0000	0.40	qQ				
46+40	0.0000	0.40	qQ				
46+45	0.0000	0.40	qQ				
46+50	0.0000	0.40	qQ				
46+55	0.0000	0.39	qQ				
47+ 0	0.0000	0.39	qQ				
47+ 5	0.0000	0.39	qQ				
47+10	0.0000	0.39	qQ				
47+15	0.0000	0.39	qQ				
47+20	0.0000	0.39	qQ				
47+25	0.0000	0.39	qQ				
47+30	0.0000	0.39	qQ				
47+35	0.0000	0.39	qQ				
47+40	0.0000	0.39	qQ				
47+45	0.0000	0.39	qQ				
47+50	0.0000	0.39	qQ				
47+55	0.0000	0.39	qQ				
48+ 0	0.0000	0.39	qQ				
48+ 5	0.0000	0.39	qQ				
48+10	0.0000	0.39	qQ				
48+15	0.0000	0.39	qQ				
48+20	0.0000	0.39	qQ				
48+25	0.0000	0.39	qQ				
48+30	0.0000	0.39	qQ				
48+35	0.0000	0.39	qQ				
48+40	0.0000	0.39	qQ				
48+45	0.0000	0.39	qQ				
48+50	0.0000	0.39	qQ				
48+55	0.0000	0.39	qQ				
49+ 0	0.0000	0.39	qQ				
49+ 5	0.0000	0.39	qQ				
49+10	0.0000	0.39	qQ				
49+15	0.0000	0.39	qQ				
49+20	0.0000	0.39	qQ				
49+25	0.0000	0.39	qQ				
49+30	0.0000	0.39	qQ				
49+35	0.0000	0.38	qQ				
49+40	0.0000	0.38	qQ				
49+45	0.0000	0.38	qQ				
49+50	0.0000	0.38	qQ				
49+55	0.0000	0.38	qQ				
50+ 0	0.0000	0.38	qQ				

50+ 5	0.0000	0.38	qQ				
50+10	0.0000	0.38	qQ				
50+15	0.0000	0.38	qQ				
50+20	0.0000	0.38	qQ				
50+25	0.0000	0.38	qQ				
50+30	0.0000	0.38	qQ				
50+35	0.0000	0.38	qQ				
50+40	0.0000	0.38	qQ				
50+45	0.0000	0.38	qQ				
50+50	0.0000	0.38	qQ				
50+55	0.0000	0.38	qQ				
51+ 0	0.0000	0.38	qQ				
51+ 5	0.0000	0.38	qQ				
51+10	0.0000	0.38	qQ				
51+15	0.0000	0.38	qQ				
51+20	0.0000	0.38	qQ				
51+25	0.0000	0.38	qQ				
51+30	0.0000	0.38	qQ				
51+35	0.0000	0.38	qQ				
51+40	0.0000	0.38	qQ				
51+45	0.0000	0.38	qQ				
51+50	0.0000	0.38	qQ				
51+55	0.0000	0.38	qQ				
52+ 0	0.0000	0.38	qQ				
52+ 5	0.0000	0.38	qQ				
52+10	0.0000	0.38	qQ				
52+15	0.0000	0.37	qQ				
52+20	0.0000	0.37	qQ				
52+25	0.0000	0.37	qQ				
52+30	0.0000	0.37	qQ				
52+35	0.0000	0.37	qQ				
52+40	0.0000	0.37	qQ				
52+45	0.0000	0.37	qQ				
52+50	0.0000	0.37	qQ				
52+55	0.0000	0.37	qQ				
53+ 0	0.0000	0.37	qQ				
53+ 5	0.0000	0.37	qQ				
53+10	0.0000	0.37	qQ				
53+15	0.0000	0.37	qQ				
53+20	0.0000	0.37	qQ				
53+25	0.0000	0.37	qQ				
53+30	0.0000	0.37	qQ				
53+35	0.0000	0.37	qQ				
53+40	0.0000	0.37	qQ				
53+45	0.0000	0.37	qQ				
53+50	0.0000	0.37	qQ				
53+55	0.0000	0.37	qQ				
54+ 0	0.0000	0.37	qQ				
54+ 5	0.0000	0.37	qQ				
54+10	0.0000	0.37	qQ				
54+15	0.0000	0.37	qQ				
54+20	0.0000	0.37	qQ				
54+25	0.0000	0.37	qQ				
54+30	0.0000	0.37	qQ				

54+35	0.0000	0.37	qQ				
54+40	0.0000	0.37	qQ				
54+45	0.0000	0.36	qQ				
54+50	0.0000	0.36	qQ				
54+55	0.0000	0.36	qQ				
55+ 0	0.0000	0.36	qQ				
55+ 5	0.0000	0.36	qQ				
55+10	0.0000	0.36	qQ				
55+15	0.0000	0.36	qQ				
55+20	0.0000	0.36	qQ				
55+25	0.0000	0.36	qQ				
55+30	0.0000	0.36	qQ				
55+35	0.0000	0.36	qQ				
55+40	0.0000	0.36	qQ				
55+45	0.0000	0.36	qQ				
55+50	0.0000	0.36	qQ				
55+55	0.0000	0.36	qQ				
56+ 0	0.0000	0.36	qQ				
56+ 5	0.0000	0.36	qQ				
56+10	0.0000	0.36	qQ				
56+15	0.0000	0.36	qQ				
56+20	0.0000	0.36	qQ				
56+25	0.0000	0.36	qQ				
56+30	0.0000	0.36	qQ				
56+35	0.0000	0.36	qQ				
56+40	0.0000	0.36	qQ				
56+45	0.0000	0.36	qQ				
56+50	0.0000	0.36	qQ				
56+55	0.0000	0.35	qQ				
57+ 0	0.0000	0.35	qQ				
57+ 5	0.0000	0.35	qQ				
57+10	0.0000	0.35	qQ				
57+15	0.0000	0.35	qQ				
57+20	0.0000	0.35	qQ				
57+25	0.0000	0.35	qQ				
57+30	0.0000	0.35	qQ				
57+35	0.0000	0.35	qQ				
57+40	0.0000	0.35	qQ				
57+45	0.0000	0.35	qQ				
57+50	0.0000	0.35	qQ				
57+55	0.0000	0.35	qQ				
58+ 0	0.0000	0.35	qQ				
58+ 5	0.0000	0.35	qQ				
58+10	0.0000	0.35	qQ				
58+15	0.0000	0.35	qQ				
58+20	0.0000	0.35	qQ				
58+25	0.0000	0.35	qQ				
58+30	0.0000	0.35	qQ				
58+35	0.0000	0.35	qQ				
58+40	0.0000	0.35	qQ				
58+45	0.0000	0.35	qQ				
58+50	0.0000	0.34	qQ				
58+55	0.0000	0.34	qQ				
59+ 0	0.0000	0.34	qQ				

59+ 5	0.0000	0.34	qQ				
59+10	0.0000	0.34	qQ				
59+15	0.0000	0.34	qQ				
59+20	0.0000	0.34	qQ				
59+25	0.0000	0.34	qQ				
59+30	0.0000	0.34	qQ				
59+35	0.0000	0.34	qQ				
59+40	0.0000	0.34	qQ				
59+45	0.0000	0.34	qQ				
59+50	0.0000	0.34	qQ				
59+55	0.0000	0.34	qQ				
60+ 0	0.0000	0.34	qQ				
60+ 5	0.0000	0.34	qQ				
60+10	0.0000	0.34	qQ				
60+15	0.0000	0.34	qQ				
60+20	0.0000	0.34	qQ				
60+25	0.0000	0.34	qQ				
60+30	0.0000	0.33	qQ				
60+35	0.0000	0.33	qQ				
60+40	0.0000	0.33	qQ				
60+45	0.0000	0.33	qQ				
60+50	0.0000	0.33	qQ				
60+55	0.0000	0.33	qQ				
61+ 0	0.0000	0.33	qQ				
61+ 5	0.0000	0.33	qQ				
61+10	0.0000	0.33	qQ				
61+15	0.0000	0.33	qQ				
61+20	0.0000	0.33	qQ				
61+25	0.0000	0.33	qQ				
61+30	0.0000	0.33	qQ				
61+35	0.0000	0.33	qQ				
61+40	0.0000	0.33	qQ				
61+45	0.0000	0.33	qQ				
61+50	0.0000	0.33	qQ				
61+55	0.0000	0.33	qQ				
62+ 0	0.0000	0.33	qQ				
62+ 5	0.0000	0.33	qQ				
62+10	0.0000	0.33	qQ				
62+15	0.0000	0.32	qQ				
62+20	0.0000	0.32	qQ				
62+25	0.0000	0.32	qQ				
62+30	0.0000	0.32	qQ				
62+35	0.0000	0.32	qQ				
62+40	0.0000	0.32	qQ				
62+45	0.0000	0.32	qQ				
62+50	0.0000	0.32	qQ				
62+55	0.0000	0.32	qQ				
63+ 0	0.0000	0.32	qQ				
63+ 5	0.0000	0.32	qQ				
63+10	0.0000	0.32	qQ				
63+15	0.0000	0.32	qQ				
63+20	0.0000	0.32	qQ				
63+25	0.0000	0.32	qQ				
63+30	0.0000	0.32	qQ				

63+35	0.0000	0.32	qQ				
63+40	0.0000	0.32	qQ				
63+45	0.0000	0.32	qQ				
63+50	0.0000	0.32	qQ				
63+55	0.0000	0.32	qQ				
64+ 0	0.0000	0.31	qQ				
64+ 5	0.0000	0.31	qQ				
64+10	0.0000	0.31	qQ				
64+15	0.0000	0.31	qQ				
64+20	0.0000	0.31	qQ				
64+25	0.0000	0.31	qQ				
64+30	0.0000	0.31	qQ				
64+35	0.0000	0.31	qQ				
64+40	0.0000	0.31	qQ				
64+45	0.0000	0.31	qQ				
64+50	0.0000	0.31	qQ				
64+55	0.0000	0.31	qQ				
65+ 0	0.0000	0.31	qQ				
65+ 5	0.0000	0.31	qQ				
65+10	0.0000	0.31	qQ				
65+15	0.0000	0.31	qQ				
65+20	0.0000	0.31	qQ				
65+25	0.0000	0.31	qQ				
65+30	0.0000	0.31	qQ				
65+35	0.0000	0.31	qQ				
65+40	0.0000	0.31	qQ				
65+45	0.0000	0.31	qQ				
65+50	0.0000	0.30	qQ				
65+55	0.0000	0.30	qQ				
66+ 0	0.0000	0.30	qQ				
66+ 5	0.0000	0.30	qQ				
66+10	0.0000	0.30	qQ				
66+15	0.0000	0.30	qQ				
66+20	0.0000	0.30	qQ				
66+25	0.0000	0.30	qQ				
66+30	0.0000	0.30	qQ				
66+35	0.0000	0.30	qQ				
66+40	0.0000	0.30	qQ				
66+45	0.0000	0.30	qQ				
66+50	0.0000	0.30	qQ				
66+55	0.0000	0.30	qQ				
67+ 0	0.0000	0.30	qQ				
67+ 5	0.0000	0.30	qQ				
67+10	0.0000	0.30	qQ				
67+15	0.0000	0.30	qQ				
67+20	0.0000	0.30	qQ				
67+25	0.0000	0.30	qQ				
67+30	0.0000	0.30	qQ				
67+35	0.0000	0.30	qQ				
67+40	0.0000	0.30	qQ				
67+45	0.0000	0.29	qQ				
67+50	0.0000	0.29	qQ				
67+55	0.0000	0.29	qQ				
68+ 0	0.0000	0.29	qQ				

68+ 5	0.0000	0.29	qQ				
68+10	0.0000	0.29	qQ				
68+15	0.0000	0.29	qQ				
68+20	0.0000	0.29	qQ				
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68+35	0.0000	0.29	qQ				
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68+45	0.0000	0.29	qQ				
68+50	0.0000	0.29	qQ				
68+55	0.0000	0.29	qQ				
69+ 0	0.0000	0.29	qQ				
69+ 5	0.0000	0.29	qQ				
69+10	0.0000	0.29	qQ				
69+15	0.0000	0.29	qQ				
69+20	0.0000	0.29	qQ				
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69+30	0.0000	0.29	qQ				
69+35	0.0000	0.29	qQ				
69+40	0.0000	0.29	qQ				
69+45	0.0000	0.28	qQ				
69+50	0.0000	0.28	qQ				
69+55	0.0000	0.28	qQ				
70+ 0	0.0000	0.28	qQ				
70+ 5	0.0000	0.28	qQ				
70+10	0.0000	0.28	qQ				
70+15	0.0000	0.28	qQ				
70+20	0.0000	0.28	qQ				
70+25	0.0000	0.28	qQ				
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70+40	0.0000	0.28	qQ				
70+45	0.0000	0.28	qQ				
70+50	0.0000	0.28	qQ				
70+55	0.0000	0.28	qQ				
71+ 0	0.0000	0.28	qQ				
71+ 5	0.0000	0.28	qQ				
71+10	0.0000	0.28	qQ				
71+15	0.0000	0.28	qQ				
71+20	0.0000	0.28	qQ				
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71+40	0.0000	0.28	qQ				
71+45	0.0000	0.27	qQ				
71+50	0.0000	0.27	qQ				
71+55	0.0000	0.27	qQ				
72+ 0	0.0000	0.27	qQ				
72+ 5	0.0000	0.27	qQ				
72+10	0.0000	0.27	qQ				
72+15	0.0000	0.27	qQ				
72+20	0.0000	0.27	qQ				
72+25	0.0000	0.27	qQ				
72+30	0.0000	0.27	qQ				

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72+45	0.0000	0.27	qQ				
72+50	0.0000	0.27	qQ				
72+55	0.0000	0.27	qQ				
73+ 0	0.0000	0.27	qQ				
73+ 5	0.0000	0.27	qQ				
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73+15	0.0000	0.27	qQ				
73+20	0.0000	0.27	qQ				
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73+55	0.0000	0.26	qQ				
74+ 0	0.0000	0.26	qQ				
74+ 5	0.0000	0.26	qQ				
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74+15	0.0000	0.26	qQ				
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74+55	0.0000	0.26	qQ				
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75+45	0.0000	0.26	qQ				
75+50	0.0000	0.26	qQ				
75+55	0.0000	0.26	qQ				
76+ 0	0.0000	0.26	qQ				
76+ 5	0.0000	0.25	qQ				
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76+55	0.0000	0.25	qQ				
77+ 0	0.0000	0.25	qQ				

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77+55	0.0000	0.25	qQ				
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82+55	0.0000	0.23	qQ				
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84+55	0.0000	0.22	qQ				
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86+40	0.0000	0.21	Q				
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86+55	0.0000	0.21	Q				
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87+55	0.0000	0.21	Q				
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88+40	0.0000	0.20	Q				
88+45	0.0000	0.20	Q				
88+50	0.0000	0.20	Q				
88+55	0.0000	0.20	Q				
89+ 0	0.0000	0.20	Q				
89+ 5	0.0000	0.20	Q				
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89+15	0.0000	0.20	Q				
89+20	0.0000	0.20	Q				
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89+35	0.0000	0.20	Q				
89+40	0.0000	0.20	Q				
89+45	0.0000	0.20	Q				
89+50	0.0000	0.20	Q				
89+55	0.0000	0.20	Q				
90+ 0	0.0000	0.20	Q				
90+ 5	0.0000	0.20	Q				
90+10	0.0000	0.20	Q				
90+15	0.0000	0.20	Q				
90+20	0.0000	0.20	Q				
90+25	0.0000	0.20	Q				
90+30	0.0000	0.20	Q				

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90+40	0.0000	0.20	Q				
90+45	0.0000	0.20	Q				
90+50	0.0000	0.20	Q				
90+55	0.0000	0.20	Q				
91+ 0	0.0000	0.20	Q				
91+ 5	0.0000	0.20	Q				
91+10	0.0000	0.20	Q				
91+15	0.0000	0.20	Q				
91+20	0.0000	0.19	Q				
91+25	0.0000	0.19	Q				
91+30	0.0000	0.19	Q				
91+35	0.0000	0.19	Q				
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91+45	0.0000	0.19	Q				
91+50	0.0000	0.19	Q				
91+55	0.0000	0.19	Q				
92+ 0	0.0000	0.19	Q				
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92+15	0.0000	0.19	Q				
92+20	0.0000	0.19	Q				
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92+40	0.0000	0.19	Q				
92+45	0.0000	0.19	Q				
92+50	0.0000	0.19	Q				
92+55	0.0000	0.19	Q				
93+ 0	0.0000	0.19	Q				
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93+45	0.0000	0.19	Q				
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93+55	0.0000	0.19	Q				
94+ 0	0.0000	0.19	Q				
94+ 5	0.0000	0.19	Q				
94+10	0.0000	0.19	Q				
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94+20	0.0000	0.18	Q				
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94+30	0.0000	0.18	Q				
94+35	0.0000	0.18	Q				
94+40	0.0000	0.18	Q				
94+45	0.0000	0.18	Q				
94+50	0.0000	0.18	Q				
94+55	0.0000	0.18	Q				
95+ 0	0.0000	0.18	Q				

95+ 5	0.0000	0.18	Q				
95+10	0.0000	0.18	Q				
95+15	0.0000	0.18	Q				
95+20	0.0000	0.18	Q				
95+25	0.0000	0.18	Q				
95+30	0.0000	0.18	Q				
95+35	0.0000	0.18	Q				
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95+45	0.0000	0.18	Q				
95+50	0.0000	0.18	Q				
95+55	0.0000	0.18	Q				
96+ 0	0.0000	0.18	Q				
96+ 5	0.0000	0.18	Q				
96+10	0.0000	0.18	Q				
96+15	0.0000	0.18	Q				
96+20	0.0000	0.18	Q				
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96+45	0.0000	0.17	Q				
96+50	0.0000	0.17	Q				
96+55	0.0000	0.17	Q				
97+ 0	0.0000	0.17	Q				
97+ 5	0.0000	0.17	Q				
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97+15	0.0000	0.17	Q				
97+20	0.0000	0.17	Q				
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97+35	0.0000	0.17	Q				
97+40	0.0000	0.17	Q				
97+45	0.0000	0.17	Q				
97+50	0.0000	0.17	Q				
97+55	0.0000	0.16	Q				
98+ 0	0.0000	0.16	Q				
98+ 5	0.0000	0.16	Q				
98+10	0.0000	0.16	Q				
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98+20	0.0000	0.16	Q				
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98+40	0.0000	0.16	Q				
98+45	0.0000	0.16	Q				
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98+55	0.0000	0.16	Q				
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99+ 5	0.0000	0.16	Q				
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99+15	0.0000	0.16	Q				
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99+30	0.0000	0.15	Q				

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99+40	0.0000	0.15	Q				
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99+50	0.0000	0.15	Q				
99+55	0.0000	0.15	Q				
100+ 0	0.0000	0.15	Q				
100+ 5	0.0000	0.15	Q				
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100+40	0.0000	0.15	Q				
100+45	0.0000	0.15	Q				
100+50	0.0000	0.14	Q				
100+55	0.0000	0.14	Q				
101+ 0	0.0000	0.14	Q				
101+ 5	0.0000	0.14	Q				
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101+15	0.0000	0.14	Q				
101+20	0.0000	0.14	Q				
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101+40	0.0000	0.14	Q				
101+45	0.0000	0.13	Q				
101+50	0.0000	0.13	Q				
101+55	0.0000	0.13	Q				
102+ 0	0.0000	0.13	Q				
102+ 5	0.0000	0.13	Q				
102+10	0.0000	0.13	Q				
102+15	0.0000	0.13	Q				
102+20	0.0000	0.13	Q				
102+25	0.0000	0.13	Q				
102+30	0.0000	0.12	Q				
102+35	0.0000	0.12	Q				
102+40	0.0000	0.12	Q				
102+45	0.0000	0.12	Q				
102+50	0.0000	0.12	Q				
102+55	0.0000	0.12	Q				
103+ 0	0.0000	0.12	Q				
103+ 5	0.0000	0.12	Q				
103+10	0.0000	0.12	Q				
103+15	0.0000	0.12	Q				
103+20	0.0000	0.11	Q				
103+25	0.0000	0.11	Q				
103+30	0.0000	0.11	Q				
103+35	0.0000	0.11	Q				
103+40	0.0000	0.11	Q				
103+45	0.0000	0.11	Q				
103+50	0.0000	0.11	Q				
103+55	0.0000	0.11	Q				
104+ 0	0.0000	0.11	Q				

104+ 5	0.0000	0.11	Q	|	|	|	|
104+10	0.0000	0.11	Q	|	|	|	|
104+15	0.0000	0.10	Q	|	|	|	|
104+20	0.0000	0.10	Q	|	|	|	|
104+25	0.0000	0.10	Q	|	|	|	|
104+30	0.0000	0.10	Q	|	|	|	|
104+35	0.0000	0.10	Q	|	|	|	|
104+40	0.0000	0.10	Q	|	|	|	|
104+45	0.0000	0.10	Q	|	|	|	|
104+50	0.0000	0.10	Q	|	|	|	|
104+55	0.0000	0.10	Q	|	|	|	|
105+ 0	0.0000	0.10	Q	|	|	|	|
105+ 5	0.0000	0.10	Q	|	|	|	|
105+10	0.0000	0.10	Q	|	|	|	|
105+15	0.0000	0.09	Q	|	|	|	|
105+20	0.0000	0.09	Q	|	|	|	|
105+25	0.0000	0.09	Q	|	|	|	|
105+30	0.0000	0.09	Q	|	|	|	|
105+35	0.0000	0.08	Q	|	|	|	|
105+40	0.0000	0.08	Q	|	|	|	|
105+45	0.0000	0.08	Q	|	|	|	|
105+50	0.0000	0.08	Q	|	|	|	|
105+55	0.0000	0.07	Q	|	|	|	|
106+ 0	0.0000	0.07	Q	|	|	|	|
106+ 5	0.0000	0.07	Q	|	|	|	|
106+10	0.0000	0.07	Q	|	|	|	|
106+15	0.0000	0.06	Q	|	|	|	|
106+20	0.0000	0.06	Q	|	|	|	|
106+25	0.0000	0.06	Q	|	|	|	|
106+30	0.0000	0.06	Q	|	|	|	|
106+35	0.0000	0.06	Q	|	|	|	|
106+40	0.0000	0.05	Q	|	|	|	|
106+45	0.0000	0.05	Q	|	|	|	|
106+50	0.0000	0.05	Q	|	|	|	|
106+55	0.0000	0.05	Q	|	|	|	|
107+ 0	0.0000	0.05	Q	|	|	|	|
107+ 5	0.0000	0.05	Q	|	|	|	|
107+10	0.0000	0.04	Q	|	|	|	|
107+15	0.0000	0.04	Q	|	|	|	|
107+20	0.0000	0.04	Q	|	|	|	|
107+25	0.0000	0.04	Q	|	|	|	|
107+30	0.0000	0.04	Q	|	|	|	|
107+35	0.0000	0.04	Q	|	|	|	|
107+40	0.0000	0.04	Q	|	|	|	|
107+45	0.0000	0.04	Q	|	|	|	|
107+50	0.0000	0.03	Q	|	|	|	|
107+55	0.0000	0.03	Q	|	|	|	|
108+ 0	0.0000	0.03	Q	|	|	|	|
108+ 5	0.0000	0.03	Q	|	|	|	|
108+10	0.0000	0.03	Q	|	|	|	|
108+15	0.0000	0.03	Q	|	|	|	|
108+20	0.0000	0.03	Q	|	|	|	|
108+25	0.0000	0.03	Q	|	|	|	|
108+30	0.0000	0.03	Q	|	|	|	|

108+35	0.0000	0.03	Q	|	|	|	|
108+40	0.0000	0.02	Q	|	|	|	|
108+45	0.0000	0.02	Q	|	|	|	|
108+50	0.0000	0.02	Q	|	|	|	|
108+55	0.0000	0.02	Q	|	|	|	|
109+ 0	0.0000	0.02	Q	|	|	|	|
109+ 5	0.0000	0.02	Q	|	|	|	|
109+10	0.0000	0.02	Q	|	|	|	|
109+15	0.0000	0.02	Q	|	|	|	|
109+20	0.0000	0.02	Q	|	|	|	|
109+25	0.0000	0.02	Q	|	|	|	|
109+30	0.0000	0.02	Q	|	|	|	|
109+35	0.0000	0.02	Q	|	|	|	|
109+40	0.0000	0.02	Q	|	|	|	|
109+45	0.0000	0.02	Q	|	|	|	|
109+50	0.0000	0.02	Q	|	|	|	|
109+55	0.0000	0.02	Q	|	|	|	|
110+ 0	0.0000	0.01	Q	|	|	|	|
110+ 5	0.0000	0.01	Q	|	|	|	|
110+10	0.0000	0.01	Q	|	|	|	|
110+15	0.0000	0.01	Q	|	|	|	|
110+20	0.0000	0.01	Q	|	|	|	|
110+25	0.0000	0.01	Q	|	|	|	|
110+30	0.0000	0.01	Q	|	|	|	|
110+35	0.0000	0.01	Q	|	|	|	|
110+40	0.0000	0.01	Q	|	|	|	|
110+45	0.0000	0.01	Q	|	|	|	|
110+50	0.0000	0.01	Q	|	|	|	|
110+55	0.0000	0.01	Q	|	|	|	|
111+ 0	0.0000	0.01	Q	|	|	|	|
111+ 5	0.0000	0.01	Q	|	|	|	|
111+10	0.0000	0.01	Q	|	|	|	|
111+15	0.0000	0.01	Q	|	|	|	|
111+20	0.0000	0.01	Q	|	|	|	|
111+25	0.0000	0.01	Q	|	|	|	|
111+30	0.0000	0.01	Q	|	|	|	|
111+35	0.0000	0.01	Q	|	|	|	|
111+40	0.0000	0.01	Q	|	|	|	|
111+45	0.0000	0.01	Q	|	|	|	|
111+50	0.0000	0.01	Q	|	|	|	|
111+55	0.0000	0.01	Q	|	|	|	|
112+ 0	0.0000	0.01	Q	|	|	|	|
112+ 5	0.0000	0.01	Q	|	|	|	|
112+10	0.0000	0.01	Q	|	|	|	|
112+15	0.0000	0.01	Q	|	|	|	|
112+20	0.0000	0.01	Q	|	|	|	|
112+25	0.0000	0.01	Q	|	|	|	|
112+30	0.0000	0.01	Q	|	|	|	|
112+35	0.0000	0.01	Q	|	|	|	|
112+40	0.0000	0.01	Q	|	|	|	|
112+45	0.0000	0.01	Q	|	|	|	|
112+50	0.0000	0.00	Q	|	|	|	|
112+55	0.0000	0.00	Q	|	|	|	|
113+ 0	0.0000	0.00	Q	|	|	|	|

```
 113+ 5        0.0000       0.00  Q          |          |          |          |
 113+10        0.0000       0.00  Q          |          |          |          |
 113+15        0.0000       0.00  Q          |          |          |          |
 113+20        0.0000       0.00  Q          |          |          |          |
 113+25        0.0000       0.00  Q          |          |          |          |
 113+30        0.0000       0.00  Q          |          |          |          |
 113+35        0.0000       0.00  Q          |          |          |          |
 113+40        0.0000       0.00  Q          |          |          |          |
 113+45        0.0000       0.00  Q          |          |          |          |
 113+50        0.0000       0.00  Q          |          |          |          |
 113+55        0.0000       0.00  Q          |          |          |          |
 114+ 0        0.0000       0.00  Q          |          |          |          |
 114+ 5        0.0000       0.00  Q          |          |          |          |
 114+10        0.0000       0.00  Q          |          |          |          |
 114+15        0.0000       0.00  Q          |          |          |          |
 114+20        0.0000       0.00  Q          |          |          |          |
 114+25        0.0000       0.00  Q          |          |          |          |
 114+30        0.0000       0.00  Q          |          |          |          |
 114+35        0.0000       0.00  Q          |          |          |          |
 114+40        0.0000       0.00  Q          |          |          |          |
 114+45        0.0000       0.00  Q          |          |          |          |
 114+50        0.0000       0.00  Q          |          |          |          |
 114+55        0.0000       0.00  Q          |          |          |          |
 115+ 0        0.0000       0.00  Q          |          |          |          |
 115+ 5        0.0000       0.00  Q          |          |          |          |
 115+10        0.0000       0.00  Q          |          |          |          |
 115+15        0.0000       0.00  Q          |          |          |          |
 115+20        0.0000       0.00  Q          |          |          |          |
 115+25        0.0000       0.00  Q          |          |          |          |
 115+30        0.0000       0.00  Q          |          |          |          |
 115+35        0.0000       0.00  Q          |          |          |          |
 115+40        0.0000       0.00  Q          |          |          |          |
 115+45        0.0000       0.00  Q          |          |          |          |
 115+50        0.0000       0.00  Q          |          |          |          |
 115+55        0.0000       0.00  Q          |          |          |          |
 116+ 0        0.0000       0.00  Q          |          |          |          |
 116+ 5        0.0000       0.00  Q          |          |          |          |
 116+10        0.0000       0.00  Q          |          |          |          |
 116+15        0.0000       0.00  Q          |          |          |          |
 116+20        0.0000       0.00  Q          |          |          |          |
 116+25        0.0000       0.00  Q          |          |          |          |
 116+30        0.0000       0.00  Q          |          |          |          |
 116+35        0.0000       0.00  Q          |          |          |          |
 116+40        0.0000       0.00  Q          |          |          |          |
 116+45        0.0000       0.00  Q          |          |          |          |
 116+50        0.0000       0.00  Q          |          |          |          |
----------------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
            Number of intervals =  1402
            Time interval =    5.0 (Min.)
            Maximum/Peak flow rate =        8.474 (CFS)
            Total volume =       9.107 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
```

```
      Peak (CFS)       0.000      0.000      0.000      0.000      0.000
      Vol (Ac.Ft)       0.000      0.000      0.000      0.000      0.000
*********************************************************************

---------------------------------------------------------------------
```

Tract 36557 Basin "B"

Results of Hydrographs Flood Routing

Taking Developed Area (Subarea 1) Routed through Retention Basin and Combining it with Natural Areas (Subarea 2 & 3) and then Comparing that Hydrograph to the Hydrograph of the Existing Area

Peak Flow Rate (cfs)

		Existing				**Flood Routed**			
		130.9 Ac				**94.2 + 32.7 + +3.9 = 130.8 Ac**			
		1-hr	**3-hr**	**6-hr**	**24-hr**	**1-hr**	**3-hr**	**6-hr**	**24-hr**
2-yr	**Q cfs**	**73.7**	**49.2**	**43.0**	**7.4**	**26.8**	**15.4**	**13.1**	**2.8**
5-yr	**Q cfs**	**115.4**	**83.0**	**74.6**	**16.3**	**41.3**	**25.9**	**23.5**	**6.5**
10-yr	**Q cfs**	**170.2**	**132.9**	**122.5**	**49.6**	**59.4**	**43.4**	**42.1**	**32.9**

		Developed Area (Subarea 1)				Natural Area (Subarea 2)				Natural Area (Subarea 3)			
		94.3 Ac				32.7 Ac				3.9 Ac			
		1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr	1-hr	3-hr	6-hr	24-hr
2-yr	Q cfs	71.3	43.9	38.6	10.4	23.3	13.0	11.1	1.1	3.0	1.7	1.5	0.1
5-yr	Q cfs	106.1	69.6	61.8	16.8	36.0	22.3	19.4	3.5	4.6	2.8	2.6	0.4
10-yr	Q cfs	145.8	102.6	92.5	37.5	52.0	35.8	32.1	12.4	6.6	4.5	4.2	1.5

Storage Capacity Calculations

Tract 32786 Basin "B"

PREPARED: 9/2/2013

BASIN DEPTH	ELEV.	CONTOUR INTERVAL	AREA (Sq. Ft.)	MEAN AREA (Sq. Ft.)	MEAN AREA (Acres.)	TOTAL VOLUME (Ac. Ft.)
0	287		3,113			0
		0.33		4,655.0	0.107	
0.33	287.33		6,197			0.04
		0.34		8,519.5	0.196	
0.67	287.67		10,842			0.10
		0.33		13,527.5	0.311	
1	288		16,213			0.20
		0.33		18,659.5	0.428	
1.33	288.33		21,106			0.35
		0.34		23,347.0	0.536	
1.67	288.67		25,588			0.53
		0.33		27,625.5	0.634	
2	289		29,663			0.74
		0.33		31,709.0	0.728	
2.33	289.33		33,755			0.98
		0.34		35,714.5	0.820	
2.67	289.67		37,674			1.26
		0.33		38,674.0	0.888	
3	290		39,674			1.55
		0.33		40,282.0	0.925	
3.33	290.33		40,890			1.85
		0.34		41,503.0	0.953	
3.67	290.67		42,116			2.18
		0.33		42,735.0	0.981	
4	291		43,354			2.50
		0.33		43,978.5	1.010	
4.33	291.33		44,603			2.84
		0.34		45,233.5	1.038	
4.67	291.67		45,864			3.19
		0.33		46,547.0	1.069	
5	292		47,230			3.54
		0.33		47,565.0	1.092	
5.33	292.33		47,900			3.90
		0.34		48,235.0	1.107	
5.67	292.67		48,570			4.28
		0.33		48,905.0	1.123	
6	293		49,240			4.65
		2		51,276.0	1.177	
8	295		53,312			7.00
		1		54,345.0	1.248	
9	296		55,378			8.25
		1		56,424.0	1.295	
10	297		57,470			9.55
		1		58,529.0	1.344	
11	298		59,588			10.89
		1		60,659.0	1.393	
12	299		61,730			12.28
		1		62,815.5	1.442	
13	300		63,901			13.72

Storage Capacity AcFt 13.72 Storage Capacity CuFt 597,797

DEPTH vs OUTFLOW CALCULATIONS

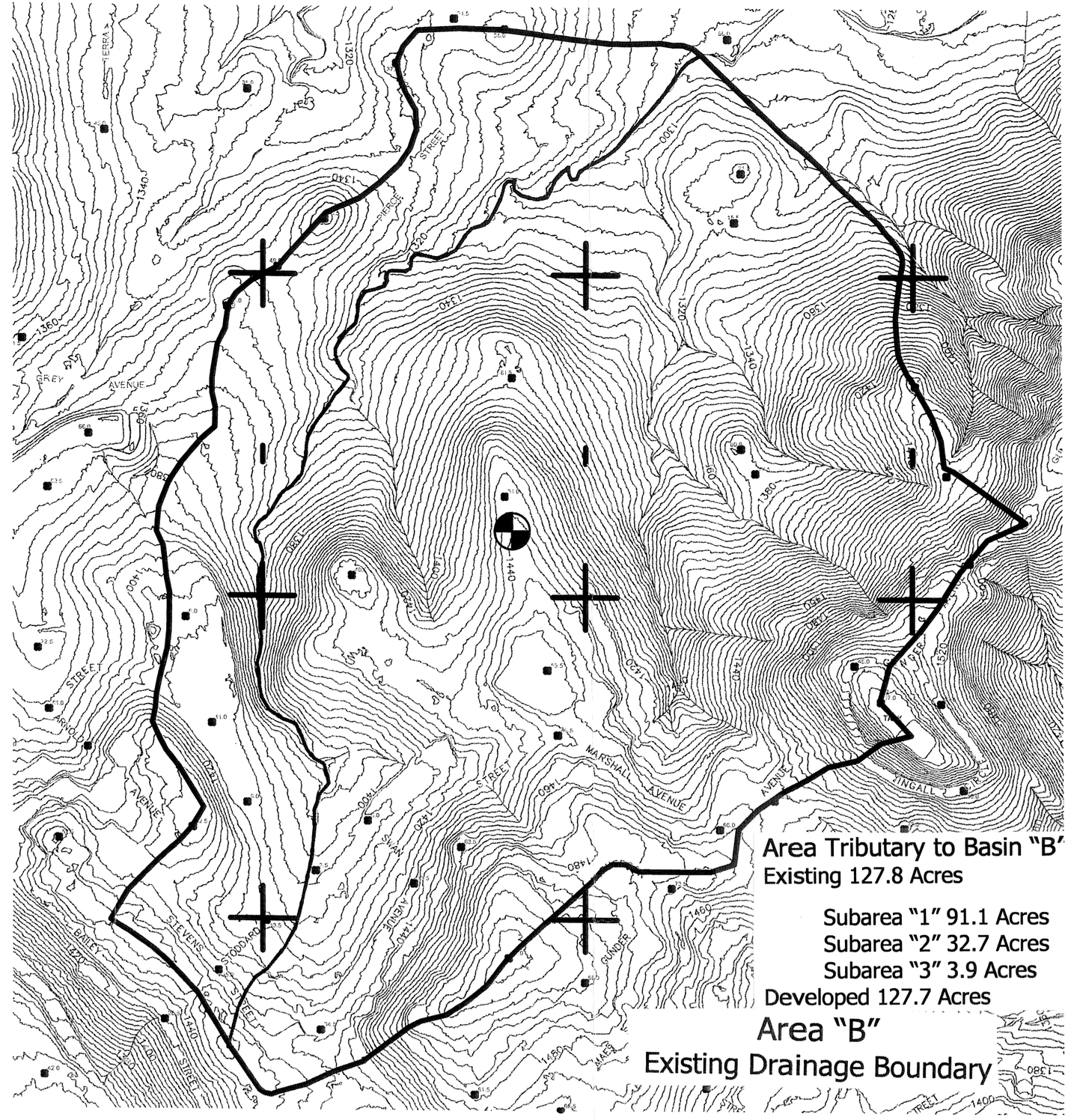
Tr. 32786 Water Quality & Retarding Basin "B"

			Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Slots	Weir	
No. of Holes & Slots			3	3	3	3	3	3	3	3	3	3	3	3	3	4	6	0	1	No. of Weir
			Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Hole C	Slot C	Weir C	
Discharge Coefficient			0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	3.33	Weir Coefficient
			Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Hole FL	Slot FL	Dist to Weir	
Distance of Holes to Basin Bottom (in)			0	60	64	68	72	76	80	84	88	92	96	100	104	108	112	0	126	Distance of Top of Riser Pipe from Basin Bottom (in)
			Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Hole R	Area	Weir Length (ft)	
Hole Radius (in) Slots Area (sq ft)			1.0166	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	30	Riser Perimeter (ft) = 2(12)+6
			Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Cen Elev	Weir Elev	
Hole Centerline Elev (ft)			287.08	292.08	292.42	292.75	293.08	293.42	293.75	294.08	294.42	294.75	295.08	295.42	295.75	296.08	296.42	287.00	297.50	Top of Riser Elevation (ft)
Elevation	Depth	Basin Volume	Outflow																	
287.00	0	0	0																	
287.33	0.33	0.04	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
288.00	1.00	0.20	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
289.00	2.00	0.74	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
290.00	3.00	1.55	0.61	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
291.00	4.00	2.50	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
292.00	5.00	3.54	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
292.33	5.33	3.90	0.99	0.82	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
293.00	6.00	4.65	1.64	0.87	0.33	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
294.00	8.00	7.00	4.75	1.01	0.59	0.56	0.52	0.48	0.44	0.39	0.33	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	
295.50	8.50	7.63	5.76	1.04	0.64	0.61	0.57	0.54	0.50	0.46	0.41	0.36	0.30	0.22	0.10	0.00	0.00	0.00	0.00	
296.00	9.00	8.25	6.78	1.07	0.69	0.66	0.62	0.59	0.56	0.52	0.48	0.44	0.39	0.33	0.26	0.17	0.00	0.00	0.00	
297.00	10.00	9.65	9.18	1.13	0.77	0.74	0.71	0.69	0.66	0.62	0.59	0.56	0.52	0.48	0.44	0.39	0.44	0.44	0.00	
298.00	11.00	10.89	46.19	1.18	0.84	0.82	0.79	0.77	0.74	0.71	0.69	0.66	0.62	0.59	0.56	0.52	0.64	0.73	0.00	35.32
298.67	11.67	11.82	138.26	1.22	0.89	0.87	0.84	0.82	0.79	0.77	0.74	0.71	0.69	0.66	0.63	0.59	0.74	0.87	0.00	126.43
299.00	12.00	12.28	195.80	1.24	0.91	0.89	0.87	0.84	0.82	0.79	0.77	0.74	0.71	0.69	0.66	0.62	0.79	0.93	0.00	183.53
300.00	13.00	13.72	408.40	1.29	0.98	0.95	0.93	0.91	0.89	0.87	0.84	0.82	0.79	0.77	0.74	0.71	0.91	1.09	0.00	394.89

[Σ Flows (Holes + Risers)] (Outflow through Holes) (Outflow over Top of Weir)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.66 used here
   A = Orifice Area
   H = Headwater, Elevation of Water to Cen. of Orifice
2. Slot outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.66 used here
   A = Slot Area (sq.ft.)
   H = Headwater, Elevation of Water to Cen. of Slot
3. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 3.33 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater, Elevation of Water to Top of Weir


Area Tributary to Basin "B"
Existing 127.8 Acres
Subarea "1" 91.1 Acres
Subarea "2" 32.7 Acres
Subarea "3" 3.9 Acres
Developed 127.7 Acres
Area "B"
Existing Drainage Boundary
GREY AVENUE
PIERCE STREET
MARSHALL AVENUE
STEVENS STREET
STODDARD
BAILEY
GUNDER
SWAN AVENUE
ARNOLD AVENUE
STREET
1320
1340
1360
1380
1400
1420
1440
1460
1480

U n i t H y d r o g r a p h A n a l y s i s

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Study date 08/22/13 File: 32786BEx242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6194

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TTM 32786
2-Year 24-Hour Unit Hydrograph Analysis Area "B"
Existing Condition

Drainage Area = 127.80(Ac.) = 0.200 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 127.80(Ac.) = 0.200 Sq.Mi.
Length along longest watercourse = 4200.00(Ft.)
Length along longest watercourse measured to centroid = 2103.00(Ft.)
Length along longest watercourse = 0.795 Mi.
Length along longest watercourse measured to centroid = 0.398 Mi.
Difference in elevation = 168.00(Ft.)
Slope along watercourse = 211.2000 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.168 Hr.
Lag time = 10.09 Min.
25% of lag time = 2.52 Min.
40% of lag time = 4.04 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
127.80	2.48	316.94

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
127.80	6.90	881.82

STORM EVENT (YEAR) = 2.00

Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 2.479(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
0.800	56.00	0.500
2.100	69.00	0.500
19.900	75.00	0.500
105.000	81.00	0.000

Total Area Entered = 127.80(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
56.0	36.0	0.706	0.500	0.388	0.006	0.002
69.0	49.8	0.574	0.500	0.316	0.016	0.005
75.0	57.0	0.501	0.500	0.275	0.156	0.043
81.0	64.4	0.422	0.000	0.422	0.822	0.347
					Sum (F) =	0.398

Area averaged mean soil loss (F) (In/Hr) = 0.398
Minimum soil loss rate ((In/Hr)) = 0.199
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.829

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	49.530	6.037	7.776
2	0.167	99.060	25.748	33.162
3	0.250	148.589	28.890	37.209
4	0.333	198.119	13.126	16.907
5	0.417	247.649	6.841	8.811
6	0.500	297.179	4.751	6.119
7	0.583	346.708	3.423	4.409
8	0.667	396.238	2.627	3.384
9	0.750	445.768	1.927	2.482
10	0.833	495.298	1.545	1.990
11	0.917	544.827	1.324	1.705
12	1.000	594.357	1.012	1.303
13	1.083	643.887	0.815	1.050
14	1.167	693.417	0.619	0.797
15	1.250	742.946	0.497	0.640
16	1.333	792.476	0.495	0.638
17	1.417	842.006	0.323	0.416
			Sum = 100.000	Sum= 128.798

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.705)	0.016	0.003
2	0.17	0.07	0.020	(0.702)	0.016	0.003
3	0.25	0.07	0.020	(0.699)	0.016	0.003
4	0.33	0.10	0.030	(0.697)	0.025	0.005
5	0.42	0.10	0.030	(0.694)	0.025	0.005
6	0.50	0.10	0.030	(0.691)	0.025	0.005
7	0.58	0.10	0.030	(0.689)	0.025	0.005
8	0.67	0.10	0.030	(0.686)	0.025	0.005
9	0.75	0.10	0.030	(0.683)	0.025	0.005
10	0.83	0.13	0.040	(0.680)	0.033	0.007
11	0.92	0.13	0.040	(0.678)	0.033	0.007
12	1.00	0.13	0.040	(0.675)	0.033	0.007
13	1.08	0.10	0.030	(0.672)	0.025	0.005
14	1.17	0.10	0.030	(0.670)	0.025	0.005
15	1.25	0.10	0.030	(0.667)	0.025	0.005
16	1.33	0.10	0.030	(0.665)	0.025	0.005
17	1.42	0.10	0.030	(0.662)	0.025	0.005
18	1.50	0.10	0.030	(0.659)	0.025	0.005
19	1.58	0.10	0.030	(0.657)	0.025	0.005
20	1.67	0.10	0.030	(0.654)	0.025	0.005
21	1.75	0.10	0.030	(0.651)	0.025	0.005
22	1.83	0.13	0.040	(0.649)	0.033	0.007
23	1.92	0.13	0.040	(0.646)	0.033	0.007
24	2.00	0.13	0.040	(0.643)	0.033	0.007
25	2.08	0.13	0.040	(0.641)	0.033	0.007
26	2.17	0.13	0.040	(0.638)	0.033	0.007
27	2.25	0.13	0.040	(0.636)	0.033	0.007
28	2.33	0.13	0.040	(0.633)	0.033	0.007
29	2.42	0.13	0.040	(0.631)	0.033	0.007
30	2.50	0.13	0.040	(0.628)	0.033	0.007
31	2.58	0.17	0.050	(0.625)	0.041	0.008
32	2.67	0.17	0.050	(0.623)	0.041	0.008
33	2.75	0.17	0.050	(0.620)	0.041	0.008
34	2.83	0.17	0.050	(0.618)	0.041	0.008
35	2.92	0.17	0.050	(0.615)	0.041	0.008
36	3.00	0.17	0.050	(0.613)	0.041	0.008
37	3.08	0.17	0.050	(0.610)	0.041	0.008
38	3.17	0.17	0.050	(0.608)	0.041	0.008
39	3.25	0.17	0.050	(0.605)	0.041	0.008
40	3.33	0.17	0.050	(0.602)	0.041	0.008
41	3.42	0.17	0.050	(0.600)	0.041	0.008
42	3.50	0.17	0.050	(0.597)	0.041	0.008
43	3.58	0.17	0.050	(0.595)	0.041	0.008
44	3.67	0.17	0.050	(0.592)	0.041	0.008
45	3.75	0.17	0.050	(0.590)	0.041	0.008
46	3.83	0.20	0.060	(0.587)	0.049	0.010
47	3.92	0.20	0.060	(0.585)	0.049	0.010
48	4.00	0.20	0.060	(0.583)	0.049	0.010
49	4.08	0.20	0.060	(0.580)	0.049	0.010
50	4.17	0.20	0.060	(0.578)	0.049	0.010
51	4.25	0.20	0.060	(0.575)	0.049	0.010

52	4.33	0.23	0.069	(0.573)	0.058	0.012
53	4.42	0.23	0.069	(0.570)	0.058	0.012
54	4.50	0.23	0.069	(0.568)	0.058	0.012
55	4.58	0.23	0.069	(0.565)	0.058	0.012
56	4.67	0.23	0.069	(0.563)	0.058	0.012
57	4.75	0.23	0.069	(0.560)	0.058	0.012
58	4.83	0.27	0.079	(0.558)	0.066	0.014
59	4.92	0.27	0.079	(0.556)	0.066	0.014
60	5.00	0.27	0.079	(0.553)	0.066	0.014
61	5.08	0.20	0.060	(0.551)	0.049	0.010
62	5.17	0.20	0.060	(0.548)	0.049	0.010
63	5.25	0.20	0.060	(0.546)	0.049	0.010
64	5.33	0.23	0.069	(0.544)	0.058	0.012
65	5.42	0.23	0.069	(0.541)	0.058	0.012
66	5.50	0.23	0.069	(0.539)	0.058	0.012
67	5.58	0.27	0.079	(0.537)	0.066	0.014
68	5.67	0.27	0.079	(0.534)	0.066	0.014
69	5.75	0.27	0.079	(0.532)	0.066	0.014
70	5.83	0.27	0.079	(0.530)	0.066	0.014
71	5.92	0.27	0.079	(0.527)	0.066	0.014
72	6.00	0.27	0.079	(0.525)	0.066	0.014
73	6.08	0.30	0.089	(0.522)	0.074	0.015
74	6.17	0.30	0.089	(0.520)	0.074	0.015
75	6.25	0.30	0.089	(0.518)	0.074	0.015
76	6.33	0.30	0.089	(0.516)	0.074	0.015
77	6.42	0.30	0.089	(0.513)	0.074	0.015
78	6.50	0.30	0.089	(0.511)	0.074	0.015
79	6.58	0.33	0.099	(0.509)	0.082	0.017
80	6.67	0.33	0.099	(0.506)	0.082	0.017
81	6.75	0.33	0.099	(0.504)	0.082	0.017
82	6.83	0.33	0.099	(0.502)	0.082	0.017
83	6.92	0.33	0.099	(0.500)	0.082	0.017
84	7.00	0.33	0.099	(0.497)	0.082	0.017
85	7.08	0.33	0.099	(0.495)	0.082	0.017
86	7.17	0.33	0.099	(0.493)	0.082	0.017
87	7.25	0.33	0.099	(0.490)	0.082	0.017
88	7.33	0.37	0.109	(0.488)	0.090	0.019
89	7.42	0.37	0.109	(0.486)	0.090	0.019
90	7.50	0.37	0.109	(0.484)	0.090	0.019
91	7.58	0.40	0.119	(0.482)	0.099	0.020
92	7.67	0.40	0.119	(0.479)	0.099	0.020
93	7.75	0.40	0.119	(0.477)	0.099	0.020
94	7.83	0.43	0.129	(0.475)	0.107	0.022
95	7.92	0.43	0.129	(0.473)	0.107	0.022
96	8.00	0.43	0.129	(0.471)	0.107	0.022
97	8.08	0.50	0.149	(0.468)	0.123	0.025
98	8.17	0.50	0.149	(0.466)	0.123	0.025
99	8.25	0.50	0.149	(0.464)	0.123	0.025
100	8.33	0.50	0.149	(0.462)	0.123	0.025
101	8.42	0.50	0.149	(0.460)	0.123	0.025
102	8.50	0.50	0.149	(0.458)	0.123	0.025
103	8.58	0.53	0.159	(0.455)	0.131	0.027
104	8.67	0.53	0.159	(0.453)	0.131	0.027
105	8.75	0.53	0.159	(0.451)	0.131	0.027
106	8.83	0.57	0.169	(0.449)	0.140	0.029
107	8.92	0.57	0.169	(0.447)	0.140	0.029
108	9.00	0.57	0.169	(0.445)	0.140	0.029

109	9.08	0.63	0.188	(0.443)	0.156	0.032
110	9.17	0.63	0.188	(0.441)	0.156	0.032
111	9.25	0.63	0.188	(0.438)	0.156	0.032
112	9.33	0.67	0.198	(0.436)	0.164	0.034
113	9.42	0.67	0.198	(0.434)	0.164	0.034
114	9.50	0.67	0.198	(0.432)	0.164	0.034
115	9.58	0.70	0.208	(0.430)	0.173	0.036
116	9.67	0.70	0.208	(0.428)	0.173	0.036
117	9.75	0.70	0.208	(0.426)	0.173	0.036
118	9.83	0.73	0.218	(0.424)	0.181	0.037
119	9.92	0.73	0.218	(0.422)	0.181	0.037
120	10.00	0.73	0.218	(0.420)	0.181	0.037
121	10.08	0.50	0.149	(0.418)	0.123	0.025
122	10.17	0.50	0.149	(0.416)	0.123	0.025
123	10.25	0.50	0.149	(0.414)	0.123	0.025
124	10.33	0.50	0.149	(0.412)	0.123	0.025
125	10.42	0.50	0.149	(0.410)	0.123	0.025
126	10.50	0.50	0.149	(0.408)	0.123	0.025
127	10.58	0.67	0.198	(0.406)	0.164	0.034
128	10.67	0.67	0.198	(0.404)	0.164	0.034
129	10.75	0.67	0.198	(0.402)	0.164	0.034
130	10.83	0.67	0.198	(0.400)	0.164	0.034
131	10.92	0.67	0.198	(0.398)	0.164	0.034
132	11.00	0.67	0.198	(0.396)	0.164	0.034
133	11.08	0.63	0.188	(0.394)	0.156	0.032
134	11.17	0.63	0.188	(0.392)	0.156	0.032
135	11.25	0.63	0.188	(0.390)	0.156	0.032
136	11.33	0.63	0.188	(0.388)	0.156	0.032
137	11.42	0.63	0.188	(0.386)	0.156	0.032
138	11.50	0.63	0.188	(0.384)	0.156	0.032
139	11.58	0.57	0.169	(0.382)	0.140	0.029
140	11.67	0.57	0.169	(0.381)	0.140	0.029
141	11.75	0.57	0.169	(0.379)	0.140	0.029
142	11.83	0.60	0.179	(0.377)	0.148	0.031
143	11.92	0.60	0.179	(0.375)	0.148	0.031
144	12.00	0.60	0.179	(0.373)	0.148	0.031
145	12.08	0.83	0.248	(0.371)	0.205	0.042
146	12.17	0.83	0.248	(0.369)	0.205	0.042
147	12.25	0.83	0.248	(0.367)	0.205	0.042
148	12.33	0.87	0.258	(0.366)	0.214	0.044
149	12.42	0.87	0.258	(0.364)	0.214	0.044
150	12.50	0.87	0.258	(0.362)	0.214	0.044
151	12.58	0.93	0.278	(0.360)	0.230	0.048
152	12.67	0.93	0.278	(0.358)	0.230	0.048
153	12.75	0.93	0.278	(0.356)	0.230	0.048
154	12.83	0.97	0.288	(0.355)	0.238	0.049
155	12.92	0.97	0.288	(0.353)	0.238	0.049
156	13.00	0.97	0.288	(0.351)	0.238	0.049
157	13.08	1.13	0.337	(0.349)	0.279	0.058
158	13.17	1.13	0.337	(0.348)	0.279	0.058
159	13.25	1.13	0.337	(0.346)	0.279	0.058
160	13.33	1.13	0.337	(0.344)	0.279	0.058
161	13.42	1.13	0.337	(0.342)	0.279	0.058
162	13.50	1.13	0.337	(0.341)	0.279	0.058
163	13.58	0.77	0.228	(0.339)	0.189	0.039
164	13.67	0.77	0.228	(0.337)	0.189	0.039
165	13.75	0.77	0.228	(0.335)	0.189	0.039

166	13.83	0.77	0.228	(0.334)	0.189	0.039
167	13.92	0.77	0.228	(0.332)	0.189	0.039
168	14.00	0.77	0.228	(0.330)	0.189	0.039
169	14.08	0.90	0.268	(0.329)	0.222	0.046
170	14.17	0.90	0.268	(0.327)	0.222	0.046
171	14.25	0.90	0.268	(0.325)	0.222	0.046
172	14.33	0.87	0.258	(0.324)	0.214	0.044
173	14.42	0.87	0.258	(0.322)	0.214	0.044
174	14.50	0.87	0.258	(0.320)	0.214	0.044
175	14.58	0.87	0.258	(0.319)	0.214	0.044
176	14.67	0.87	0.258	(0.317)	0.214	0.044
177	14.75	0.87	0.258	(0.315)	0.214	0.044
178	14.83	0.83	0.248	(0.314)	0.205	0.042
179	14.92	0.83	0.248	(0.312)	0.205	0.042
180	15.00	0.83	0.248	(0.311)	0.205	0.042
181	15.08	0.80	0.238	(0.309)	0.197	0.041
182	15.17	0.80	0.238	(0.307)	0.197	0.041
183	15.25	0.80	0.238	(0.306)	0.197	0.041
184	15.33	0.77	0.228	(0.304)	0.189	0.039
185	15.42	0.77	0.228	(0.303)	0.189	0.039
186	15.50	0.77	0.228	(0.301)	0.189	0.039
187	15.58	0.63	0.188	(0.300)	0.156	0.032
188	15.67	0.63	0.188	(0.298)	0.156	0.032
189	15.75	0.63	0.188	(0.297)	0.156	0.032
190	15.83	0.63	0.188	(0.295)	0.156	0.032
191	15.92	0.63	0.188	(0.293)	0.156	0.032
192	16.00	0.63	0.188	(0.292)	0.156	0.032
193	16.08	0.13	0.040	(0.290)	0.033	0.007
194	16.17	0.13	0.040	(0.289)	0.033	0.007
195	16.25	0.13	0.040	(0.288)	0.033	0.007
196	16.33	0.13	0.040	(0.286)	0.033	0.007
197	16.42	0.13	0.040	(0.285)	0.033	0.007
198	16.50	0.13	0.040	(0.283)	0.033	0.007
199	16.58	0.10	0.030	(0.282)	0.025	0.005
200	16.67	0.10	0.030	(0.280)	0.025	0.005
201	16.75	0.10	0.030	(0.279)	0.025	0.005
202	16.83	0.10	0.030	(0.277)	0.025	0.005
203	16.92	0.10	0.030	(0.276)	0.025	0.005
204	17.00	0.10	0.030	(0.275)	0.025	0.005
205	17.08	0.17	0.050	(0.273)	0.041	0.008
206	17.17	0.17	0.050	(0.272)	0.041	0.008
207	17.25	0.17	0.050	(0.271)	0.041	0.008
208	17.33	0.17	0.050	(0.269)	0.041	0.008
209	17.42	0.17	0.050	(0.268)	0.041	0.008
210	17.50	0.17	0.050	(0.266)	0.041	0.008
211	17.58	0.17	0.050	(0.265)	0.041	0.008
212	17.67	0.17	0.050	(0.264)	0.041	0.008
213	17.75	0.17	0.050	(0.262)	0.041	0.008
214	17.83	0.13	0.040	(0.261)	0.033	0.007
215	17.92	0.13	0.040	(0.260)	0.033	0.007
216	18.00	0.13	0.040	(0.259)	0.033	0.007
217	18.08	0.13	0.040	(0.257)	0.033	0.007
218	18.17	0.13	0.040	(0.256)	0.033	0.007
219	18.25	0.13	0.040	(0.255)	0.033	0.007
220	18.33	0.13	0.040	(0.254)	0.033	0.007
221	18.42	0.13	0.040	(0.252)	0.033	0.007
222	18.50	0.13	0.040	(0.251)	0.033	0.007

223	18.58	0.10	0.030	(0.250)	0.025	0.005
224	18.67	0.10	0.030	(0.249)	0.025	0.005
225	18.75	0.10	0.030	(0.248)	0.025	0.005
226	18.83	0.07	0.020	(0.246)	0.016	0.003
227	18.92	0.07	0.020	(0.245)	0.016	0.003
228	19.00	0.07	0.020	(0.244)	0.016	0.003
229	19.08	0.10	0.030	(0.243)	0.025	0.005
230	19.17	0.10	0.030	(0.242)	0.025	0.005
231	19.25	0.10	0.030	(0.241)	0.025	0.005
232	19.33	0.13	0.040	(0.239)	0.033	0.007
233	19.42	0.13	0.040	(0.238)	0.033	0.007
234	19.50	0.13	0.040	(0.237)	0.033	0.007
235	19.58	0.10	0.030	(0.236)	0.025	0.005
236	19.67	0.10	0.030	(0.235)	0.025	0.005
237	19.75	0.10	0.030	(0.234)	0.025	0.005
238	19.83	0.07	0.020	(0.233)	0.016	0.003
239	19.92	0.07	0.020	(0.232)	0.016	0.003
240	20.00	0.07	0.020	(0.231)	0.016	0.003
241	20.08	0.10	0.030	(0.230)	0.025	0.005
242	20.17	0.10	0.030	(0.229)	0.025	0.005
243	20.25	0.10	0.030	(0.228)	0.025	0.005
244	20.33	0.10	0.030	(0.227)	0.025	0.005
245	20.42	0.10	0.030	(0.226)	0.025	0.005
246	20.50	0.10	0.030	(0.225)	0.025	0.005
247	20.58	0.10	0.030	(0.224)	0.025	0.005
248	20.67	0.10	0.030	(0.223)	0.025	0.005
249	20.75	0.10	0.030	(0.222)	0.025	0.005
250	20.83	0.07	0.020	(0.221)	0.016	0.003
251	20.92	0.07	0.020	(0.220)	0.016	0.003
252	21.00	0.07	0.020	(0.219)	0.016	0.003
253	21.08	0.10	0.030	(0.219)	0.025	0.005
254	21.17	0.10	0.030	(0.218)	0.025	0.005
255	21.25	0.10	0.030	(0.217)	0.025	0.005
256	21.33	0.07	0.020	(0.216)	0.016	0.003
257	21.42	0.07	0.020	(0.215)	0.016	0.003
258	21.50	0.07	0.020	(0.214)	0.016	0.003
259	21.58	0.10	0.030	(0.214)	0.025	0.005
260	21.67	0.10	0.030	(0.213)	0.025	0.005
261	21.75	0.10	0.030	(0.212)	0.025	0.005
262	21.83	0.07	0.020	(0.211)	0.016	0.003
263	21.92	0.07	0.020	(0.211)	0.016	0.003
264	22.00	0.07	0.020	(0.210)	0.016	0.003
265	22.08	0.10	0.030	(0.209)	0.025	0.005
266	22.17	0.10	0.030	(0.209)	0.025	0.005
267	22.25	0.10	0.030	(0.208)	0.025	0.005
268	22.33	0.07	0.020	(0.207)	0.016	0.003
269	22.42	0.07	0.020	(0.207)	0.016	0.003
270	22.50	0.07	0.020	(0.206)	0.016	0.003
271	22.58	0.07	0.020	(0.205)	0.016	0.003
272	22.67	0.07	0.020	(0.205)	0.016	0.003
273	22.75	0.07	0.020	(0.204)	0.016	0.003
274	22.83	0.07	0.020	(0.204)	0.016	0.003
275	22.92	0.07	0.020	(0.203)	0.016	0.003
276	23.00	0.07	0.020	(0.203)	0.016	0.003
277	23.08	0.07	0.020	(0.202)	0.016	0.003
278	23.17	0.07	0.020	(0.202)	0.016	0.003
279	23.25	0.07	0.020	(0.201)	0.016	0.003

```
280  23.33     0.07      0.020       (  0.201)       0.016        0.003
281  23.42     0.07      0.020       (  0.201)       0.016        0.003
282  23.50     0.07      0.020       (  0.200)       0.016        0.003
283  23.58     0.07      0.020       (  0.200)       0.016        0.003
284  23.67     0.07      0.020       (  0.200)       0.016        0.003
285  23.75     0.07      0.020       (  0.199)       0.016        0.003
286  23.83     0.07      0.020       (  0.199)       0.016        0.003
287  23.92     0.07      0.020       (  0.199)       0.016        0.003
288  24.00     0.07      0.020       (  0.199)       0.016        0.003
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =     5.1
     Flood volume = Effective rainfall      0.42(In)
      times area     127.8(Ac.)/[(In)/(Ft.)] =       4.5(Ac.Ft)
     Total soil loss =      2.05(In)
     Total soil loss =    21.880(Ac.Ft)
     Total rainfall =      2.48(In)
     Flood volume =      197147.6 Cubic Feet
     Total soil loss =      953071.9 Cubic Feet
     ----------------------------------------------------------------
      Peak flow rate of this hydrograph =      7.259(CFS)
     ----------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f     H y d r o g r a p h
     ----------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     ----------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ----------------------------------------------------------------------
   0+ 5       0.0002      0.03  Q          |         |         |         |
   0+10       0.0011      0.14  Q          |         |         |         |
   0+15       0.0030      0.27  VQ         |         |         |         |
   0+20       0.0053      0.34  VQ         |         |         |         |
   0+25       0.0082      0.42  VQ         |         |         |         |
   0+30       0.0117      0.51  V Q        |         |         |         |
   0+35       0.0155      0.55  V Q        |         |         |         |
   0+40       0.0195      0.58  V Q        |         |         |         |
   0+45       0.0236      0.60  V Q        |         |         |         |
   0+50       0.0279      0.62  V Q        |         |         |         |
   0+55       0.0326      0.69  V Q        |         |         |         |
   1+ 0       0.0379      0.76  V  Q       |         |         |         |
   1+ 5       0.0433      0.79  V  Q       |         |         |         |
   1+10       0.0485      0.75  V  Q       |         |         |         |
   1+15       0.0533      0.70  V Q        |         |         |         |
   1+20       0.0580      0.68  V Q        |         |         |         |
   1+25       0.0627      0.68  V Q        |         |         |         |
   1+30       0.0673      0.67  V Q        |         |         |         |
   1+35       0.0719      0.67  V Q        |         |         |         |
   1+40       0.0765      0.67  V Q        |         |         |         |
   1+45       0.0811      0.67  V Q        |         |         |         |
   1+50       0.0858      0.68  V Q        |         |         |         |
   1+55       0.0908      0.73  V Q        |         |         |         |
   2+ 0       0.0963      0.79  V  Q       |         |         |         |
   2+ 5       0.1019      0.82  V  Q       |         |         |         |
   2+10       0.1077      0.84  V  Q       |         |         |         |
   2+15       0.1135      0.85  |V Q       |         |         |         |
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2+20      0.1194     0.85  |V Q      |         |         |         |
2+25      0.1253     0.86  |V Q      |         |         |         |
2+30      0.1312     0.86  |V Q      |         |         |         |
2+35      0.1373     0.88  |V Q      |         |         |         |
2+40      0.1438     0.94  |V Q      |         |         |         |
2+45      0.1507     1.00  |V  Q     |         |         |         |
2+50      0.1578     1.03  |V  Q     |         |         |         |
2+55      0.1650     1.05  |V  Q     |         |         |         |
3+ 0      0.1723     1.06  |V  Q     |         |         |         |
3+ 5      0.1797     1.07  |V  Q     |         |         |         |
3+10      0.1871     1.08  |V  Q     |         |         |         |
3+15      0.1946     1.08  |V  Q     |         |         |         |
3+20      0.2020     1.08  |V  Q     |         |         |         |
3+25      0.2095     1.09  |V  Q     |         |         |         |
3+30      0.2170     1.09  |V  Q     |         |         |         |
3+35      0.2245     1.09  |V  Q     |         |         |         |
3+40      0.2320     1.09  | V Q     |         |         |         |
3+45      0.2396     1.09  | V Q     |         |         |         |
3+50      0.2472     1.11  | V Q     |         |         |         |
3+55      0.2552     1.16  | V Q     |         |         |         |
4+ 0      0.2637     1.23  | V Q     |         |         |         |
4+ 5      0.2723     1.26  | V  Q    |         |         |         |
4+10      0.2811     1.27  | V  Q    |         |         |         |
4+15      0.2899     1.28  | V  Q    |         |         |         |
4+20      0.2989     1.30  | V  Q    |         |         |         |
4+25      0.3083     1.37  | V  Q    |         |         |         |
4+30      0.3182     1.43  | V  Q    |         |         |         |
4+35      0.3283     1.46  | V  Q    |         |         |         |
4+40      0.3385     1.48  | V  Q    |         |         |         |
4+45      0.3488     1.50  |  V Q    |         |         |         |
4+50      0.3592     1.52  |  V  Q   |         |         |         |
4+55      0.3701     1.58  |  V  Q   |         |         |         |
5+ 0      0.3815     1.65  |  V  Q   |         |         |         |
5+ 5      0.3929     1.66  |  V  Q   |         |         |         |
5+10      0.4037     1.56  |  V  Q   |         |         |         |
5+15      0.4136     1.45  |  V Q    |         |         |         |
5+20      0.4234     1.41  |  V Q    |         |         |         |
5+25      0.4333     1.45  |  V Q    |         |         |         |
5+30      0.4436     1.49  |  V Q    |         |         |         |
5+35      0.4541     1.53  |   V Q   |         |         |         |
5+40      0.4651     1.59  |   V Q   |         |         |         |
5+45      0.4765     1.66  |   V Q   |         |         |         |
5+50      0.4881     1.69  |   V Q   |         |         |         |
5+55      0.4999     1.70  |   V Q   |         |         |         |
6+ 0      0.5117     1.72  |   V Q   |         |         |         |
6+ 5      0.5237     1.74  |   V Q   |         |         |         |
6+10      0.5361     1.80  |   V  Q  |         |         |         |
6+15      0.5489     1.87  |   V  Q  |         |         |         |
6+20      0.5620     1.90  |   V  Q  |         |         |         |
6+25      0.5752     1.92  |    V Q  |         |         |         |
6+30      0.5885     1.93  |    V Q  |         |         |         |
6+35      0.6020     1.96  |    V Q  |         |         |         |
6+40      0.6159     2.02  |    V  Q |         |         |         |
6+45      0.6303     2.09  |    V  Q |         |         |         |
6+50      0.6449     2.12  |    V  Q |         |         |         |
6+55      0.6596     2.14  |    V  Q |         |         |         |
7+ 0      0.6745     2.15  |    V  Q |         |         |         |
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 7+ 5      0.6893      2.16  |     V Q |         |         |         |
 7+10      0.7043      2.17  |     V Q |         |         |         |
 7+15      0.7193      2.17  |     V Q |         |         |         |
 7+20      0.7344      2.19  |     V Q |         |         |         |
 7+25      0.7499      2.25  |     V  Q|         |         |         |
 7+30      0.7658      2.32  |     V  Q|         |         |         |
 7+35      0.7821      2.36  |     V  Q|         |         |         |
 7+40      0.7988      2.43  |      V Q|         |         |         |
 7+45      0.8161      2.51  |      V  Q         |         |         |
 7+50      0.8337      2.56  |      V  Q         |         |         |
 7+55      0.8519      2.64  |      V  Q         |         |         |
 8+ 0      0.8706      2.72  |      V  Q         |         |         |
 8+ 5      0.8898      2.78  |      V  |Q        |         |         |
 8+10      0.9099      2.92  |       V |Q        |         |         |
 8+15      0.9309      3.06  |       V | Q       |         |         |
 8+20      0.9525      3.13  |       V | Q       |         |         |
 8+25      0.9743      3.17  |       V | Q       |         |         |
 8+30      0.9964      3.20  |       V | Q       |         |         |
 8+35      1.0186      3.23  |        V| Q       |         |         |
 8+40      1.0414      3.31  |        V|  Q      |         |         |
 8+45      1.0647      3.38  |        V|  Q      |         |         |
 8+50      1.0884      3.43  |        V|  Q      |         |         |
 8+55      1.1126      3.51  |        V|   Q     |         |         |
 9+ 0      1.1373      3.59  |         V   Q     |         |         |
 9+ 5      1.1625      3.66  |         V   Q     |         |         |
 9+10      1.1886      3.80  |         V    Q    |         |         |
 9+15      1.2158      3.94  |         V    Q    |         |         |
 9+20      1.2435      4.02  |         V     Q   |         |         |
 9+25      1.2719      4.12  |         |V    Q   |         |         |
 9+30      1.3008      4.21  |         |V    Q   |         |         |
 9+35      1.3303      4.27  |         |V     Q  |         |         |
 9+40      1.3603      4.36  |         | V    Q  |         |         |
 9+45      1.3909      4.45  |         | V    Q  |         |         |
 9+50      1.4219      4.50  |         | V     Q |         |         |
 9+55      1.4535      4.59  |         | V     Q |         |         |
10+ 0      1.4857      4.67  |         |  V    Q |         |         |
10+ 5      1.5176      4.62  |         |  V    Q |         |         |
10+10      1.5469      4.26  |         |  V   Q  |         |         |
10+15      1.5733      3.83  |         |  V Q    |         |         |
10+20      1.5984      3.65  |         |   Q     |         |         |
10+25      1.6229      3.55  |         |   Q     |         |         |
10+30      1.6469      3.49  |         |  QV     |         |         |
10+35      1.6710      3.51  |         |   Q     |         |         |
10+40      1.6969      3.75  |         |   VQ    |         |         |
10+45      1.7247      4.04  |         |    VQ   |         |         |
10+50      1.7534      4.17  |         |    VQ   |         |         |
10+55      1.7825      4.22  |         |    VQ   |         |         |
11+ 0      1.8119      4.26  |         |     VQ  |         |         |
11+ 5      1.8413      4.27  |         |     VQ  |         |         |
11+10      1.8705      4.24  |         |     Q   |         |         |
11+15      1.8993      4.19  |         |     Q   |         |         |
11+20      1.9281      4.17  |         |     QV  |         |         |
11+25      1.9567      4.16  |         |     QV  |         |         |
11+30      1.9854      4.16  |         |     QV  |         |         |
11+35      2.0139      4.14  |         |     QV  |         |         |
11+40      2.0416      4.03  |         |     Q V |         |         |
11+45      2.0685      3.90  |         |    Q  V |         |         |
```

11+50	2.0951	3.86	
11+55	2.1219	3.89	
12+ 0	2.1489	3.93	
12+ 5	2.1767	4.03	
12+10	2.2072	4.43	
12+15	2.2407	4.87	
12+20	2.2758	5.09	
12+25	2.3119	5.25	
12+30	2.3490	5.38	
12+35	2.3868	5.49	
12+40	2.4257	5.66	
12+45	2.4659	5.83	
12+50	2.5067	5.93	
12+55	2.5483	6.04	
13+ 0	2.5906	6.14	
13+ 5	2.6338	6.27	
13+10	2.6792	6.59	
13+15	2.7269	6.94	
13+20	2.7759	7.10	
13+25	2.8255	7.20	
13+30	2.8754	7.26	
13+35	2.9248	7.16	
13+40	2.9700	6.57	
13+45	3.0107	5.90	
13+50	3.0493	5.61	
13+55	3.0869	5.46	
14+ 0	3.1238	5.36	
14+ 5	3.1606	5.34	
14+10	3.1985	5.51	
14+15	3.2379	5.72	
14+20	3.2778	5.79	
14+25	3.3175	5.77	
14+30	3.3569	5.72	
14+35	3.3962	5.70	
14+40	3.4354	5.69	
14+45	3.4746	5.69	
14+50	3.5136	5.67	
14+55	3.5523	5.61	
15+ 0	3.5905	5.55	
15+ 5	3.6285	5.51	
15+10	3.6660	5.45	
15+15	3.7030	5.37	
15+20	3.7397	5.33	
15+25	3.7759	5.25	
15+30	3.8115	5.17	
15+35	3.8465	5.08	
15+40	3.8797	4.83	
15+45	3.9111	4.56	
15+50	3.9417	4.43	
15+55	3.9717	4.36	
16+ 0	4.0014	4.31	
16+ 5	4.0295	4.08	
16+10	4.0515	3.20	
16+15	4.0669	2.23	
16+20	4.0792	1.79	
16+25	4.0899	1.55	
16+30	4.0994	1.38	

16+35	4.1080	1.25	Q			V
16+40	4.1156	1.10	Q			V
16+45	4.1222	0.97	Q			V
16+50	4.1283	0.88	Q			V
16+55	4.1340	0.82	Q			V
17+ 0	4.1394	0.78	Q			V
17+ 5	4.1447	0.77	Q			V
17+10	4.1506	0.86	Q			V
17+15	4.1572	0.96	Q			V
17+20	4.1641	1.00	Q			V
17+25	4.1712	1.02	Q			V
17+30	4.1783	1.04	Q			V
17+35	4.1855	1.05	Q			V
17+40	4.1928	1.06	Q			V
17+45	4.2002	1.07	Q			V
17+50	4.2075	1.06	Q			V
17+55	4.2145	1.01	Q			V
18+ 0	4.2210	0.95	Q			V
18+ 5	4.2274	0.93	Q			V
18+10	4.2337	0.91	Q			V
18+15	4.2399	0.90	Q			V
18+20	4.2461	0.90	Q			V
18+25	4.2522	0.89	Q			V
18+30	4.2584	0.89	Q			V
18+35	4.2644	0.87	Q			V
18+40	4.2700	0.81	Q			V
18+45	4.2752	0.75	Q			V
18+50	4.2800	0.71	Q			V
18+55	4.2844	0.63	Q			V
19+ 0	4.2882	0.56	Q			V
19+ 5	4.2919	0.53	Q			V
19+10	4.2958	0.57	Q			V
19+15	4.3001	0.62	Q			V
19+20	4.3045	0.65	Q			V
19+25	4.3094	0.71	Q			V
19+30	4.3148	0.78	Q			V
19+35	4.3203	0.80	Q			V
19+40	4.3255	0.76	Q			V
19+45	4.3304	0.70	Q			V
19+50	4.3350	0.67	Q			V
19+55	4.3391	0.61	Q			V
20+ 0	4.3428	0.54	Q			V
20+ 5	4.3464	0.52	Q			V
20+10	4.3503	0.56	Q			V
20+15	4.3545	0.61	Q			V
20+20	4.3588	0.63	Q			V
20+25	4.3632	0.64	Q			V
20+30	4.3676	0.64	Q			V
20+35	4.3721	0.65	Q			V
20+40	4.3766	0.65	Q			V
20+45	4.3810	0.65	Q			V
20+50	4.3854	0.64	Q			V
20+55	4.3894	0.58	Q			V
21+ 0	4.3930	0.52	Q			V
21+ 5	4.3965	0.51	Q			V
21+10	4.4003	0.55	Q			V
21+15	4.4044	0.60	Q			V

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 21+20       4.4086      0.61  | Q        |          |          |        V |
 21+25       4.4125      0.56  | Q        |          |          |        V |
 21+30       4.4160      0.51  | Q        |          |          |         V|
 21+35       4.4194      0.50  |Q         |          |          |         V|
 21+40       4.4231      0.54  | Q        |          |          |         V|
 21+45       4.4272      0.59  | Q        |          |          |         V|
 21+50       4.4314      0.60  | Q        |          |          |         V|
 21+55       4.4352      0.56  | Q        |          |          |         V|
 22+ 0       4.4387      0.50  | Q        |          |          |         V|
 22+ 5       4.4421      0.49  |Q         |          |          |         V|
 22+10       4.4458      0.54  | Q        |          |          |         V|
 22+15       4.4499      0.59  | Q        |          |          |         V|
 22+20       4.4540      0.60  | Q        |          |          |         V|
 22+25       4.4579      0.56  | Q        |          |          |         V|
 22+30       4.4613      0.50  | Q        |          |          |         V|
 22+35       4.4646      0.48  |Q         |          |          |         V|
 22+40       4.4678      0.47  |Q         |          |          |         V|
 22+45       4.4710      0.46  |Q         |          |          |         V|
 22+50       4.4741      0.45  |Q         |          |          |         V|
 22+55       4.4772      0.45  |Q         |          |          |         V|
 23+ 0       4.4803      0.45  |Q         |          |          |         V|
 23+ 5       4.4834      0.45  |Q         |          |          |         V|
 23+10       4.4865      0.44  |Q         |          |          |         V|
 23+15       4.4895      0.44  |Q         |          |          |         V|
 23+20       4.4925      0.44  |Q         |          |          |         V|
 23+25       4.4956      0.44  |Q         |          |          |         V|
 23+30       4.4986      0.44  |Q         |          |          |         V|
 23+35       4.5016      0.44  |Q         |          |          |         V|
 23+40       4.5046      0.44  |Q         |          |          |         V|
 23+45       4.5077      0.44  |Q         |          |          |         V|
 23+50       4.5107      0.44  |Q         |          |          |         V|
 23+55       4.5137      0.44  |Q         |          |          |         V|
 24+ 0       4.5167      0.44  |Q         |          |          |         V|
 24+ 5       4.5195      0.41  |Q         |          |          |         V|
 24+10       4.5216      0.30  |Q         |          |          |         V|
 24+15       4.5228      0.17  Q          |          |          |         V|
 24+20       4.5236      0.11  Q          |          |          |         V|
 24+25       4.5242      0.08  Q          |          |          |         V|
 24+30       4.5246      0.06  Q          |          |          |         V|
 24+35       4.5249      0.05  Q          |          |          |         V|
 24+40       4.5252      0.04  Q          |          |          |         V|
 24+45       4.5254      0.03  Q          |          |          |         V|
 24+50       4.5256      0.02  Q          |          |          |         V|
 24+55       4.5257      0.02  Q          |          |          |         V|
 25+ 0       4.5258      0.01  Q          |          |          |         V|
 25+ 5       4.5258      0.01  Q          |          |          |         V|
 25+10       4.5259      0.01  Q          |          |          |         V|
 25+15       4.5259      0.00  Q          |          |          |         V|
 25+20       4.5259      0.00  Q          |          |          |         V|
-----------------------------------------------------------------------
```

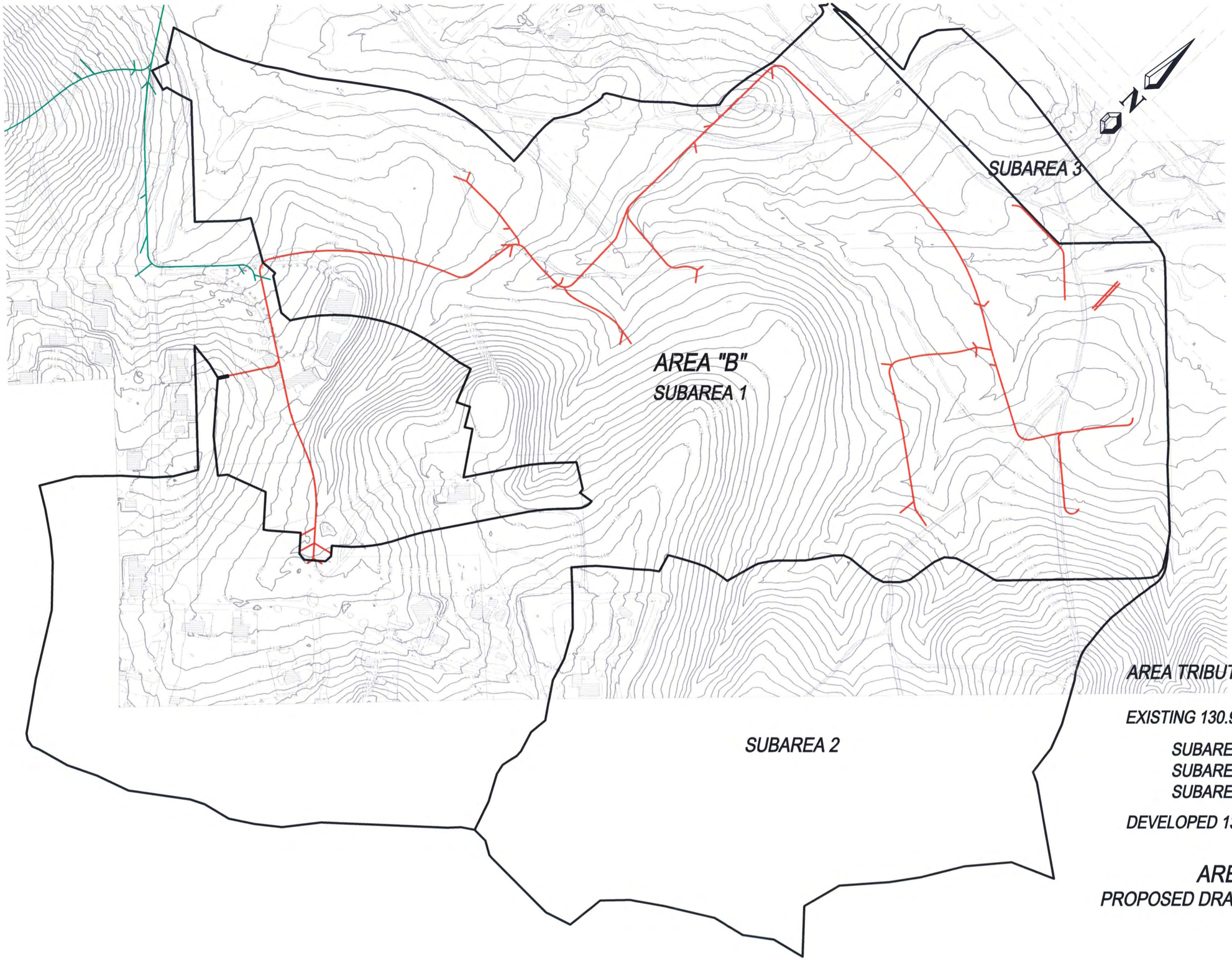

AREA TRIBUTARY TO BASIN "B"

EXISTING 130.9 ACRES

SUBAREA "1" 94.3 ACRES
SUBAREA "2" 32.7 ACRES
SUBAREA "3" 3.9 ACRES

DEVELOPED 130.8 ACRES

AREA "B"
PROPOSED DRAINAGE BOUNDARY

U n i t H y d r o g r a p h A n a l y s i s

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Study date 05/01/14 File: 32786BDev242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6194

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TTM 36557
2-Year 24-Hour Unit Hydrograph Analysis Area "B" Subarea 1
Proposed Developed Condition

Drainage Area = 94.30(Ac.) = 0.147 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 94.30(Ac.) = 0.147 Sq. Mi.
Length along longest watercourse = 6162.00(Ft.)
Length along longest watercourse measured to centroid = 3095.00(Ft.)
Length along longest watercourse = 1.167 Mi.
Length along longest watercourse measured to centroid = 0.586 Mi.
Difference in elevation = 168.00(Ft.)
Slope along watercourse = 143.9533 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.121 Hr.
Lag time = 7.27 Min.
25% of lag time = 1.82 Min.
40% of lag time = 2.91 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
94.30	2.48	233.86

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]

94.30 6.90 650.67

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 2.480(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
0.800	56.00	0.500
2.100	69.00	0.500
19.900	75.00	0.500
31.800	75.00	0.500
39.700	81.00	0.000

Total Area Entered = 94.30(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
56.0	36.0	0.706	0.500	0.388	0.008	0.003
69.0	49.8	0.574	0.500	0.316	0.022	0.007
75.0	57.0	0.501	0.500	0.275	0.211	0.058
75.0	57.0	0.501	0.500	0.275	0.337	0.093
81.0	64.4	0.422	0.000	0.422	0.421	0.178
					Sum (F) =	0.339

Area averaged mean soil loss (F) (In/Hr) = 0.339
Minimum soil loss rate ((In/Hr)) = 0.170
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.660

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	68.744	10.306	9.795
2	0.167	137.488	39.435	37.478
3	0.250	206.232	23.584	22.414
4	0.333	274.976	9.129	8.676
5	0.417	343.720	5.552	5.276
6	0.500	412.464	3.712	3.527
7	0.583	481.208	2.467	2.344
8	0.667	549.952	1.938	1.841
9	0.750	618.696	1.385	1.317
10	0.833	687.440	0.995	0.945
11	0.917	756.184	0.716	0.680
12	1.000	824.928	0.782	0.743

Sum = 100.000 Sum= 95.037

The following loss rate calculations reflect use of the minimum calculated loss
rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.601)	0.013	0.007
2	0.17	0.07	0.020	(0.599)	0.013	0.007
3	0.25	0.07	0.020	(0.597)	0.013	0.007
4	0.33	0.10	0.030	(0.594)	0.020	0.010
5	0.42	0.10	0.030	(0.592)	0.020	0.010
6	0.50	0.10	0.030	(0.590)	0.020	0.010
7	0.58	0.10	0.030	(0.587)	0.020	0.010
8	0.67	0.10	0.030	(0.585)	0.020	0.010
9	0.75	0.10	0.030	(0.583)	0.020	0.010
10	0.83	0.13	0.040	(0.580)	0.026	0.013
11	0.92	0.13	0.040	(0.578)	0.026	0.013
12	1.00	0.13	0.040	(0.576)	0.026	0.013
13	1.08	0.10	0.030	(0.574)	0.020	0.010
14	1.17	0.10	0.030	(0.571)	0.020	0.010
15	1.25	0.10	0.030	(0.569)	0.020	0.010
16	1.33	0.10	0.030	(0.567)	0.020	0.010
17	1.42	0.10	0.030	(0.565)	0.020	0.010
18	1.50	0.10	0.030	(0.562)	0.020	0.010
19	1.58	0.10	0.030	(0.560)	0.020	0.010
20	1.67	0.10	0.030	(0.558)	0.020	0.010
21	1.75	0.10	0.030	(0.556)	0.020	0.010
22	1.83	0.13	0.040	(0.553)	0.026	0.013
23	1.92	0.13	0.040	(0.551)	0.026	0.013
24	2.00	0.13	0.040	(0.549)	0.026	0.013
25	2.08	0.13	0.040	(0.547)	0.026	0.013
26	2.17	0.13	0.040	(0.544)	0.026	0.013
27	2.25	0.13	0.040	(0.542)	0.026	0.013
28	2.33	0.13	0.040	(0.540)	0.026	0.013
29	2.42	0.13	0.040	(0.538)	0.026	0.013
30	2.50	0.13	0.040	(0.536)	0.026	0.013
31	2.58	0.17	0.050	(0.533)	0.033	0.017
32	2.67	0.17	0.050	(0.531)	0.033	0.017
33	2.75	0.17	0.050	(0.529)	0.033	0.017
34	2.83	0.17	0.050	(0.527)	0.033	0.017
35	2.92	0.17	0.050	(0.525)	0.033	0.017
36	3.00	0.17	0.050	(0.523)	0.033	0.017
37	3.08	0.17	0.050	(0.520)	0.033	0.017
38	3.17	0.17	0.050	(0.518)	0.033	0.017
39	3.25	0.17	0.050	(0.516)	0.033	0.017
40	3.33	0.17	0.050	(0.514)	0.033	0.017
41	3.42	0.17	0.050	(0.512)	0.033	0.017
42	3.50	0.17	0.050	(0.510)	0.033	0.017
43	3.58	0.17	0.050	(0.507)	0.033	0.017

44	3.67	0.17	0.050	(0.505)	0.033	0.017
45	3.75	0.17	0.050	(0.503)	0.033	0.017
46	3.83	0.20	0.060	(0.501)	0.039	0.020
47	3.92	0.20	0.060	(0.499)	0.039	0.020
48	4.00	0.20	0.060	(0.497)	0.039	0.020
49	4.08	0.20	0.060	(0.495)	0.039	0.020
50	4.17	0.20	0.060	(0.493)	0.039	0.020
51	4.25	0.20	0.060	(0.491)	0.039	0.020
52	4.33	0.23	0.069	(0.488)	0.046	0.024
53	4.42	0.23	0.069	(0.486)	0.046	0.024
54	4.50	0.23	0.069	(0.484)	0.046	0.024
55	4.58	0.23	0.069	(0.482)	0.046	0.024
56	4.67	0.23	0.069	(0.480)	0.046	0.024
57	4.75	0.23	0.069	(0.478)	0.046	0.024
58	4.83	0.27	0.079	(0.476)	0.052	0.027
59	4.92	0.27	0.079	(0.474)	0.052	0.027
60	5.00	0.27	0.079	(0.472)	0.052	0.027
61	5.08	0.20	0.060	(0.470)	0.039	0.020
62	5.17	0.20	0.060	(0.468)	0.039	0.020
63	5.25	0.20	0.060	(0.466)	0.039	0.020
64	5.33	0.23	0.069	(0.464)	0.046	0.024
65	5.42	0.23	0.069	(0.462)	0.046	0.024
66	5.50	0.23	0.069	(0.460)	0.046	0.024
67	5.58	0.27	0.079	(0.458)	0.052	0.027
68	5.67	0.27	0.079	(0.456)	0.052	0.027
69	5.75	0.27	0.079	(0.454)	0.052	0.027
70	5.83	0.27	0.079	(0.452)	0.052	0.027
71	5.92	0.27	0.079	(0.450)	0.052	0.027
72	6.00	0.27	0.079	(0.448)	0.052	0.027
73	6.08	0.30	0.089	(0.446)	0.059	0.030
74	6.17	0.30	0.089	(0.444)	0.059	0.030
75	6.25	0.30	0.089	(0.442)	0.059	0.030
76	6.33	0.30	0.089	(0.440)	0.059	0.030
77	6.42	0.30	0.089	(0.438)	0.059	0.030
78	6.50	0.30	0.089	(0.436)	0.059	0.030
79	6.58	0.33	0.099	(0.434)	0.066	0.034
80	6.67	0.33	0.099	(0.432)	0.066	0.034
81	6.75	0.33	0.099	(0.430)	0.066	0.034
82	6.83	0.33	0.099	(0.428)	0.066	0.034
83	6.92	0.33	0.099	(0.426)	0.066	0.034
84	7.00	0.33	0.099	(0.424)	0.066	0.034
85	7.08	0.33	0.099	(0.422)	0.066	0.034
86	7.17	0.33	0.099	(0.420)	0.066	0.034
87	7.25	0.33	0.099	(0.418)	0.066	0.034
88	7.33	0.37	0.109	(0.416)	0.072	0.037
89	7.42	0.37	0.109	(0.415)	0.072	0.037
90	7.50	0.37	0.109	(0.413)	0.072	0.037
91	7.58	0.40	0.119	(0.411)	0.079	0.040
92	7.67	0.40	0.119	(0.409)	0.079	0.040
93	7.75	0.40	0.119	(0.407)	0.079	0.040
94	7.83	0.43	0.129	(0.405)	0.085	0.044
95	7.92	0.43	0.129	(0.403)	0.085	0.044
96	8.00	0.43	0.129	(0.401)	0.085	0.044
97	8.08	0.50	0.149	(0.399)	0.098	0.051

98	8.17	0.50	0.149	(0.398)	0.098	0.051
99	8.25	0.50	0.149	(0.396)	0.098	0.051
100	8.33	0.50	0.149	(0.394)	0.098	0.051
101	8.42	0.50	0.149	(0.392)	0.098	0.051
102	8.50	0.50	0.149	(0.390)	0.098	0.051
103	8.58	0.53	0.159	(0.388)	0.105	0.054
104	8.67	0.53	0.159	(0.387)	0.105	0.054
105	8.75	0.53	0.159	(0.385)	0.105	0.054
106	8.83	0.57	0.169	(0.383)	0.111	0.057
107	8.92	0.57	0.169	(0.381)	0.111	0.057
108	9.00	0.57	0.169	(0.379)	0.111	0.057
109	9.08	0.63	0.188	(0.378)	0.124	0.064
110	9.17	0.63	0.188	(0.376)	0.124	0.064
111	9.25	0.63	0.188	(0.374)	0.124	0.064
112	9.33	0.67	0.198	(0.372)	0.131	0.067
113	9.42	0.67	0.198	(0.370)	0.131	0.067
114	9.50	0.67	0.198	(0.369)	0.131	0.067
115	9.58	0.70	0.208	(0.367)	0.138	0.071
116	9.67	0.70	0.208	(0.365)	0.138	0.071
117	9.75	0.70	0.208	(0.363)	0.138	0.071
118	9.83	0.73	0.218	(0.362)	0.144	0.074
119	9.92	0.73	0.218	(0.360)	0.144	0.074
120	10.00	0.73	0.218	(0.358)	0.144	0.074
121	10.08	0.50	0.149	(0.356)	0.098	0.051
122	10.17	0.50	0.149	(0.355)	0.098	0.051
123	10.25	0.50	0.149	(0.353)	0.098	0.051
124	10.33	0.50	0.149	(0.351)	0.098	0.051
125	10.42	0.50	0.149	(0.350)	0.098	0.051
126	10.50	0.50	0.149	(0.348)	0.098	0.051
127	10.58	0.67	0.198	(0.346)	0.131	0.067
128	10.67	0.67	0.198	(0.344)	0.131	0.067
129	10.75	0.67	0.198	(0.343)	0.131	0.067
130	10.83	0.67	0.198	(0.341)	0.131	0.067
131	10.92	0.67	0.198	(0.339)	0.131	0.067
132	11.00	0.67	0.198	(0.338)	0.131	0.067
133	11.08	0.63	0.188	(0.336)	0.124	0.064
134	11.17	0.63	0.188	(0.334)	0.124	0.064
135	11.25	0.63	0.188	(0.333)	0.124	0.064
136	11.33	0.63	0.188	(0.331)	0.124	0.064
137	11.42	0.63	0.188	(0.329)	0.124	0.064
138	11.50	0.63	0.188	(0.328)	0.124	0.064
139	11.58	0.57	0.169	(0.326)	0.111	0.057
140	11.67	0.57	0.169	(0.325)	0.111	0.057
141	11.75	0.57	0.169	(0.323)	0.111	0.057
142	11.83	0.60	0.179	(0.321)	0.118	0.061
143	11.92	0.60	0.179	(0.320)	0.118	0.061
144	12.00	0.60	0.179	(0.318)	0.118	0.061
145	12.08	0.83	0.248	(0.317)	0.164	0.084
146	12.17	0.83	0.248	(0.315)	0.164	0.084
147	12.25	0.83	0.248	(0.313)	0.164	0.084
148	12.33	0.87	0.258	(0.312)	0.170	0.088
149	12.42	0.87	0.258	(0.310)	0.170	0.088
150	12.50	0.87	0.258	(0.309)	0.170	0.088
151	12.58	0.93	0.278	(0.307)	0.183	0.094

152	12.67	0.93	0.278	(0.306)	0.183	0.094
153	12.75	0.93	0.278	(0.304)	0.183	0.094
154	12.83	0.97	0.288	(0.303)	0.190	0.098
155	12.92	0.97	0.288	(0.301)	0.190	0.098
156	13.00	0.97	0.288	(0.299)	0.190	0.098
157	13.08	1.13	0.337	(0.298)	0.223	0.114
158	13.17	1.13	0.337	(0.296)	0.223	0.114
159	13.25	1.13	0.337	(0.295)	0.223	0.114
160	13.33	1.13	0.337	(0.293)	0.223	0.114
161	13.42	1.13	0.337	(0.292)	0.223	0.114
162	13.50	1.13	0.337	(0.290)	0.223	0.114
163	13.58	0.77	0.228	(0.289)	0.151	0.077
164	13.67	0.77	0.228	(0.288)	0.151	0.077
165	13.75	0.77	0.228	(0.286)	0.151	0.077
166	13.83	0.77	0.228	(0.285)	0.151	0.077
167	13.92	0.77	0.228	(0.283)	0.151	0.077
168	14.00	0.77	0.228	(0.282)	0.151	0.077
169	14.08	0.90	0.268	(0.280)	0.177	0.091
170	14.17	0.90	0.268	(0.279)	0.177	0.091
171	14.25	0.90	0.268	(0.277)	0.177	0.091
172	14.33	0.87	0.258	(0.276)	0.170	0.088
173	14.42	0.87	0.258	(0.275)	0.170	0.088
174	14.50	0.87	0.258	(0.273)	0.170	0.088
175	14.58	0.87	0.258	(0.272)	0.170	0.088
176	14.67	0.87	0.258	(0.270)	0.170	0.088
177	14.75	0.87	0.258	(0.269)	0.170	0.088
178	14.83	0.83	0.248	(0.268)	0.164	0.084
179	14.92	0.83	0.248	(0.266)	0.164	0.084
180	15.00	0.83	0.248	(0.265)	0.164	0.084
181	15.08	0.80	0.238	(0.264)	0.157	0.081
182	15.17	0.80	0.238	(0.262)	0.157	0.081
183	15.25	0.80	0.238	(0.261)	0.157	0.081
184	15.33	0.77	0.228	(0.259)	0.151	0.077
185	15.42	0.77	0.228	(0.258)	0.151	0.077
186	15.50	0.77	0.228	(0.257)	0.151	0.077
187	15.58	0.63	0.188	(0.256)	0.124	0.064
188	15.67	0.63	0.188	(0.254)	0.124	0.064
189	15.75	0.63	0.188	(0.253)	0.124	0.064
190	15.83	0.63	0.188	(0.252)	0.124	0.064
191	15.92	0.63	0.188	(0.250)	0.124	0.064
192	16.00	0.63	0.188	(0.249)	0.124	0.064
193	16.08	0.13	0.040	(0.248)	0.026	0.013
194	16.17	0.13	0.040	(0.247)	0.026	0.013
195	16.25	0.13	0.040	(0.245)	0.026	0.013
196	16.33	0.13	0.040	(0.244)	0.026	0.013
197	16.42	0.13	0.040	(0.243)	0.026	0.013
198	16.50	0.13	0.040	(0.242)	0.026	0.013
199	16.58	0.10	0.030	(0.240)	0.020	0.010
200	16.67	0.10	0.030	(0.239)	0.020	0.010
201	16.75	0.10	0.030	(0.238)	0.020	0.010
202	16.83	0.10	0.030	(0.237)	0.020	0.010
203	16.92	0.10	0.030	(0.235)	0.020	0.010
204	17.00	0.10	0.030	(0.234)	0.020	0.010
205	17.08	0.17	0.050	(0.233)	0.033	0.017

206	17.17	0.17	0.050	(0.232)	0.033	0.017
207	17.25	0.17	0.050	(0.231)	0.033	0.017
208	17.33	0.17	0.050	(0.230)	0.033	0.017
209	17.42	0.17	0.050	(0.228)	0.033	0.017
210	17.50	0.17	0.050	(0.227)	0.033	0.017
211	17.58	0.17	0.050	(0.226)	0.033	0.017
212	17.67	0.17	0.050	(0.225)	0.033	0.017
213	17.75	0.17	0.050	(0.224)	0.033	0.017
214	17.83	0.13	0.040	(0.223)	0.026	0.013
215	17.92	0.13	0.040	(0.222)	0.026	0.013
216	18.00	0.13	0.040	(0.221)	0.026	0.013
217	18.08	0.13	0.040	(0.220)	0.026	0.013
218	18.17	0.13	0.040	(0.218)	0.026	0.013
219	18.25	0.13	0.040	(0.217)	0.026	0.013
220	18.33	0.13	0.040	(0.216)	0.026	0.013
221	18.42	0.13	0.040	(0.215)	0.026	0.013
222	18.50	0.13	0.040	(0.214)	0.026	0.013
223	18.58	0.10	0.030	(0.213)	0.020	0.010
224	18.67	0.10	0.030	(0.212)	0.020	0.010
225	18.75	0.10	0.030	(0.211)	0.020	0.010
226	18.83	0.07	0.020	(0.210)	0.013	0.007
227	18.92	0.07	0.020	(0.209)	0.013	0.007
228	19.00	0.07	0.020	(0.208)	0.013	0.007
229	19.08	0.10	0.030	(0.207)	0.020	0.010
230	19.17	0.10	0.030	(0.206)	0.020	0.010
231	19.25	0.10	0.030	(0.205)	0.020	0.010
232	19.33	0.13	0.040	(0.204)	0.026	0.013
233	19.42	0.13	0.040	(0.203)	0.026	0.013
234	19.50	0.13	0.040	(0.202)	0.026	0.013
235	19.58	0.10	0.030	(0.201)	0.020	0.010
236	19.67	0.10	0.030	(0.201)	0.020	0.010
237	19.75	0.10	0.030	(0.200)	0.020	0.010
238	19.83	0.07	0.020	(0.199)	0.013	0.007
239	19.92	0.07	0.020	(0.198)	0.013	0.007
240	20.00	0.07	0.020	(0.197)	0.013	0.007
241	20.08	0.10	0.030	(0.196)	0.020	0.010
242	20.17	0.10	0.030	(0.195)	0.020	0.010
243	20.25	0.10	0.030	(0.194)	0.020	0.010
244	20.33	0.10	0.030	(0.194)	0.020	0.010
245	20.42	0.10	0.030	(0.193)	0.020	0.010
246	20.50	0.10	0.030	(0.192)	0.020	0.010
247	20.58	0.10	0.030	(0.191)	0.020	0.010
248	20.67	0.10	0.030	(0.190)	0.020	0.010
249	20.75	0.10	0.030	(0.189)	0.020	0.010
250	20.83	0.07	0.020	(0.189)	0.013	0.007
251	20.92	0.07	0.020	(0.188)	0.013	0.007
252	21.00	0.07	0.020	(0.187)	0.013	0.007
253	21.08	0.10	0.030	(0.186)	0.020	0.010
254	21.17	0.10	0.030	(0.186)	0.020	0.010
255	21.25	0.10	0.030	(0.185)	0.020	0.010
256	21.33	0.07	0.020	(0.184)	0.013	0.007
257	21.42	0.07	0.020	(0.184)	0.013	0.007
258	21.50	0.07	0.020	(0.183)	0.013	0.007
259	21.58	0.10	0.030	(0.182)	0.020	0.010

260	21.67	0.10	0.030	(0.182)	0.020	0.010
261	21.75	0.10	0.030	(0.181)	0.020	0.010
262	21.83	0.07	0.020	(0.180)	0.013	0.007
263	21.92	0.07	0.020	(0.180)	0.013	0.007
264	22.00	0.07	0.020	(0.179)	0.013	0.007
265	22.08	0.10	0.030	(0.178)	0.020	0.010
266	22.17	0.10	0.030	(0.178)	0.020	0.010
267	22.25	0.10	0.030	(0.177)	0.020	0.010
268	22.33	0.07	0.020	(0.177)	0.013	0.007
269	22.42	0.07	0.020	(0.176)	0.013	0.007
270	22.50	0.07	0.020	(0.176)	0.013	0.007
271	22.58	0.07	0.020	(0.175)	0.013	0.007
272	22.67	0.07	0.020	(0.175)	0.013	0.007
273	22.75	0.07	0.020	(0.174)	0.013	0.007
274	22.83	0.07	0.020	(0.174)	0.013	0.007
275	22.92	0.07	0.020	(0.173)	0.013	0.007
276	23.00	0.07	0.020	(0.173)	0.013	0.007
277	23.08	0.07	0.020	(0.173)	0.013	0.007
278	23.17	0.07	0.020	(0.172)	0.013	0.007
279	23.25	0.07	0.020	(0.172)	0.013	0.007
280	23.33	0.07	0.020	(0.171)	0.013	0.007
281	23.42	0.07	0.020	(0.171)	0.013	0.007
282	23.50	0.07	0.020	(0.171)	0.013	0.007
283	23.58	0.07	0.020	(0.171)	0.013	0.007
284	23.67	0.07	0.020	(0.170)	0.013	0.007
285	23.75	0.07	0.020	(0.170)	0.013	0.007
286	23.83	0.07	0.020	(0.170)	0.013	0.007
287	23.92	0.07	0.020	(0.170)	0.013	0.007
288	24.00	0.07	0.020	(0.170)	0.013	0.007

(Loss Rate Not Used)

Sum = 100.0 Sum = 10.1

Flood volume = Effective rainfall 0.84(In)
times area 94.3(Ac.)/[(In)/(Ft.)] = 6.6(Ac.Ft)
Total soil loss = 1.64(In)
Total soil loss = 12.870(Ac.Ft)
Total rainfall = 2.48(In)
Flood volume = 288157.4 Cubic Feet
Total soil loss = 560612.6 Cubic Feet

Peak flow rate of this hydrograph = 10.745(CFS)

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24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0005	0.07	Q	|	|	|	|
0+10	0.0026	0.32	Q	|	|	|	|
0+15	0.0059	0.47	Q	|	|	|	|
0+20	0.0097	0.56	VQ	|	|	|	|

0+25	0.0147	0.72	VQ				
0+30	0.0204	0.82	VQ				
0+35	0.0264	0.87	VQ				
0+40	0.0325	0.90	VQ				
0+45	0.0389	0.92	VQ				
0+50	0.0455	0.97	VQ				
0+55	0.0531	1.10	V Q				
1+ 0	0.0613	1.19	V Q				
1+ 5	0.0694	1.19	V Q				
1+10	0.0769	1.08	V Q				
1+15	0.0839	1.02	V Q				
1+20	0.0908	1.00	VQ				
1+25	0.0976	0.99	VQ				
1+30	0.1043	0.98	VQ				
1+35	0.1110	0.97	VQ				
1+40	0.1177	0.97	VQ				
1+45	0.1244	0.97	VQ				
1+50	0.1313	1.00	VQ				
1+55	0.1390	1.12	V Q				
2+ 0	0.1472	1.20	V Q				
2+ 5	0.1557	1.22	V Q				
2+10	0.1642	1.24	V Q				
2+15	0.1729	1.25	VQ				
2+20	0.1815	1.26	VQ				
2+25	0.1903	1.27	VQ				
2+30	0.1990	1.27	VQ				
2+35	0.2081	1.31	VQ				
2+40	0.2180	1.44	VQ				
2+45	0.2284	1.52	V Q				
2+50	0.2390	1.54	V Q				
2+55	0.2498	1.56	V Q				
3+ 0	0.2606	1.57	V Q				
3+ 5	0.2715	1.58	V Q				
3+10	0.2825	1.59	V Q				
3+15	0.2934	1.59	V Q				
3+20	0.3044	1.60	V Q				
3+25	0.3154	1.60	V Q				
3+30	0.3265	1.60	V Q				
3+35	0.3375	1.60	VQ				
3+40	0.3485	1.60	VQ				
3+45	0.3595	1.60	VQ				
3+50	0.3708	1.63	VQ				
3+55	0.3829	1.76	VQ				
4+ 0	0.3956	1.84	VQ				
4+ 5	0.4084	1.86	VQ				
4+10	0.4214	1.88	VQ				
4+15	0.4344	1.89	VQ				
4+20	0.4477	1.94	VQ				
4+25	0.4620	2.07	V Q				
4+30	0.4768	2.15	V Q				
4+35	0.4918	2.18	V Q				
4+40	0.5070	2.20	VQ				
4+45	0.5222	2.21	VQ				
4+50	0.5377	2.26	VQ				

4+55	0.5542	2.39	VQ				
5+ 0	0.5712	2.47	VQ				
5+ 5	0.5879	2.43	VQ				
5+10	0.6031	2.20	VQ				
5+15	0.6173	2.07	VQ				
5+20	0.6314	2.05	VQ				
5+25	0.6462	2.14	VQ				
5+30	0.6614	2.20	VQ				
5+35	0.6769	2.25	Q				
5+40	0.6933	2.38	Q				
5+45	0.7103	2.47	Q				
5+50	0.7275	2.50	Q				
5+55	0.7448	2.52	VQ				
6+ 0	0.7622	2.53	VQ				
6+ 5	0.7799	2.57	VQ				
6+10	0.7985	2.71	VQ				
6+15	0.8177	2.79	VQ				
6+20	0.8372	2.82	Q				
6+25	0.8567	2.84	Q				
6+30	0.8764	2.86	Q				
6+35	0.8963	2.90	Q				
6+40	0.9172	3.03	VQ				
6+45	0.9386	3.11	VQ				
6+50	0.9602	3.14	VQ				
6+55	0.9820	3.16	VQ				
7+ 0	1.0039	3.18	Q				
7+ 5	1.0258	3.18	Q				
7+10	1.0477	3.19	Q				
7+15	1.0697	3.19	Q				
7+20	1.0920	3.23	Q				
7+25	1.1151	3.36	Q				
7+30	1.1388	3.44	Q				
7+35	1.1629	3.50	QV				
7+40	1.1880	3.64	Q				
7+45	1.2137	3.73	Q				
7+50	1.2398	3.80	Q				
7+55	1.2670	3.95	Q				
8+ 0	1.2949	4.04	VQ				
8+ 5	1.3235	4.15	Q				
8+10	1.3539	4.43	Q				
8+15	1.3856	4.60	VQ				
8+20	1.4177	4.67	VQ				
8+25	1.4502	4.71	VQ				
8+30	1.4828	4.74	VQ				
8+35	1.5159	4.79	Q				
8+40	1.5498	4.93	Q				
8+45	1.5844	5.02	VQ				
8+50	1.6195	5.09	VQ				
8+55	1.6556	5.24	Q				
9+ 0	1.6923	5.33	Q				
9+ 5	1.7297	5.43	Q				
9+10	1.7690	5.71	VQ				
9+15	1.8095	5.88	VQ				
9+20	1.8507	5.98	Q				

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 9+25       1.8931      6.15  |          |VQ       |          |          |
 9+30       1.9362      6.26  |          |VQ       |          |          |
 9+35       1.9798      6.34  |          |VQ       |          |          |
 9+40       2.0246      6.50  |          | Q       |          |          |
 9+45       2.0700      6.60  |          | VQ      |          |          |
 9+50       2.1159      6.67  |          | VQ      |          |          |
 9+55       2.1630      6.83  |          |  Q      |          |          |
10+ 0       2.2106      6.92  |          |  Q      |          |          |
10+ 5       2.2570      6.73  |          |  Q      |          |          |
10+10       2.2975      5.88  |          |Q V      |          |          |
10+15       2.3344      5.37  |          Q   V     |          |          |
10+20       2.3701      5.17  |          Q   V     |          |          |
10+25       2.4049      5.06  |          Q   V     |          |          |
10+30       2.4392      4.98  |         Q|   V     |          |          |
10+35       2.4743      5.09  |          Q   V     |          |          |
10+40       2.5134      5.68  |          |Q   V    |          |          |
10+45       2.5549      6.03  |          | Q  V    |          |          |
10+50       2.5973      6.16  |          | Q  V    |          |          |
10+55       2.6402      6.23  |          | Q  V    |          |          |
11+ 0       2.6834      6.27  |          | Q   V   |          |          |
11+ 5       2.7267      6.28  |          | Q   V   |          |          |
11+10       2.7692      6.18  |          | Q   V   |          |          |
11+15       2.8114      6.13  |          | Q   V   |          |          |
11+20       2.8536      6.12  |          | Q    V  |          |          |
11+25       2.8956      6.11  |          | Q    V  |          |          |
11+30       2.9377      6.11  |          | Q    V  |          |          |
11+35       2.9793      6.04  |          | Q     V |          |          |
11+40       3.0191      5.78  |          |Q      V |          |          |
11+45       3.0578      5.62  |          |Q      V |          |          |
11+50       3.0963      5.59  |          |Q      V |          |          |
11+55       3.1354      5.68  |          |Q      V |          |          |
12+ 0       3.1749      5.73  |          |Q       V|          |          |
12+ 5       3.2161      5.98  |          |Q       V|          |          |
12+10       3.2633      6.86  |          |  Q     V|          |          |
12+15       3.3143      7.40  |          |   Q     V          |          |
12+20       3.3669      7.64  |          |    Q    V          |          |
12+25       3.4212      7.89  |          |    Q    V          |          |
12+30       3.4766      8.05  |          |     Q   |V         |          |
12+35       3.5331      8.20  |          |     Q   |V         |          |
12+40       3.5917      8.52  |          |      Q  |V         |          |
12+45       3.6517      8.71  |          |      Q  | V        |          |
12+50       3.7125      8.83  |          |      Q  | V        |          |
12+55       3.7746      9.02  |          |       Q | V        |          |
13+ 0       3.8376      9.14  |          |       Q |  V       |          |
13+ 5       3.9020      9.35  |          |       Q |  V       |          |
13+10       3.9710     10.02  |          |         Q   V      |          |
13+15       4.0427     10.42  |          |         Q   V      |          |
13+20       4.1155     10.58  |          |         |Q  V      |          |
13+25       4.1891     10.68  |          |         |Q   V     |          |
13+30       4.2631     10.75  |          |         |Q   V     |          |
13+35       4.3349     10.43  |          |         Q     V    |          |
13+40       4.3973      9.07  |          |       Q |     V    |          |
13+45       4.4543      8.26  |          |     Q   |     V    |          |
13+50       4.5091      7.96  |          |    Q    |      V   |          |
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13+55	4.5626	7.77		Q	V		
14+ 0	4.6153	7.66		Q	V		
14+ 5	4.6684	7.70		Q	V		
14+10	4.7244	8.14		Q	V		
14+15	4.7822	8.39		Q	V		
14+20	4.8403	8.44		Q	V		
14+25	4.8979	8.36		Q	V		
14+30	4.9551	8.30		Q	V		
14+35	5.0123	8.31		Q	V		
14+40	5.0695	8.31		Q	V		
14+45	5.1268	8.32		Q		V	
14+50	5.1839	8.29		Q		V	
14+55	5.2402	8.17		Q		V	
15+ 0	5.2960	8.10		Q		V	
15+ 5	5.3513	8.03		Q		V	
15+10	5.4056	7.89		Q		V	
15+15	5.4593	7.80		Q		V	
15+20	5.5125	7.73		Q		V	
15+25	5.5647	7.58		Q		V	
15+30	5.6162	7.48		Q		V	
15+35	5.6666	7.31		Q		V	
15+40	5.7133	6.78		Q		V	
15+45	5.7577	6.46		Q		V	
15+50	5.8013	6.33		Q		V	
15+55	5.8444	6.25		Q		V	
16+ 0	5.8871	6.20		Q		V	
16+ 5	5.9261	5.67		Q		V	
16+10	5.9519	3.75	Q			V	
16+15	5.9698	2.59	Q			V	
16+20	5.9845	2.14	Q			V	
16+25	5.9974	1.87	Q			V	
16+30	6.0090	1.68	Q			V	
16+35	6.0195	1.53	Q			V	
16+40	6.0285	1.31	Q			V	
16+45	6.0365	1.17	Q			V	
16+50	6.0440	1.09	Q			V	
16+55	6.0511	1.04	Q			V	
17+ 0	6.0579	0.99	Q			V	
17+ 5	6.0651	1.05	Q			V	
17+10	6.0740	1.29	Q			V	
17+15	6.0839	1.44	Q			V	
17+20	6.0942	1.49	Q			V	
17+25	6.1047	1.53	Q			V	
17+30	6.1154	1.55	Q			V	
17+35	6.1262	1.56	Q			V	
17+40	6.1370	1.58	Q			V	
17+45	6.1479	1.58	Q			V	
17+50	6.1587	1.56	Q			V	
17+55	6.1686	1.44	Q			V	
18+ 0	6.1780	1.37	Q			V	
18+ 5	6.1872	1.34	Q			V	
18+10	6.1963	1.32	Q			V	
18+15	6.2053	1.31	Q			V	
18+20	6.2142	1.30	Q			V	

18+25	6.2231	1.29	Q			V
18+30	6.2320	1.29	Q			V
18+35	6.2406	1.25	Q			V
18+40	6.2484	1.12	Q			V
18+45	6.2556	1.05	Q			V
18+50	6.2623	0.98	Q			V
18+55	6.2681	0.84	Q			V
19+ 0	6.2733	0.75	Q			V
19+ 5	6.2785	0.75	Q			V
19+10	6.2843	0.85	Q			V
19+15	6.2906	0.91	Q			V
19+20	6.2972	0.96	Q			V
19+25	6.3047	1.10	Q			V
19+30	6.3128	1.18	Q			V
19+35	6.3210	1.18	Q			V
19+40	6.3283	1.07	Q			V
19+45	6.3353	1.01	Q			V
19+50	6.3419	0.96	Q			V
19+55	6.3476	0.82	Q			V
20+ 0	6.3527	0.74	Q			V
20+ 5	6.3579	0.74	Q			V
20+10	6.3637	0.85	Q			V
20+15	6.3700	0.91	Q			V
20+20	6.3763	0.93	Q			V
20+25	6.3828	0.94	Q			V
20+30	6.3893	0.94	Q			V
20+35	6.3958	0.95	Q			V
20+40	6.4024	0.95	Q			V
20+45	6.4089	0.95	Q			V
20+50	6.4153	0.92	Q			V
20+55	6.4208	0.80	Q			V
21+ 0	6.4258	0.73	Q			V
21+ 5	6.4308	0.73	Q			V
21+10	6.4366	0.84	Q			V
21+15	6.4428	0.90	Q			V
21+20	6.4489	0.89	Q			V
21+25	6.4542	0.78	Q			V
21+30	6.4591	0.71	Q			V
21+35	6.4640	0.72	Q			V
21+40	6.4697	0.83	Q			V
21+45	6.4759	0.89	Q			V
21+50	6.4820	0.89	Q			V
21+55	6.4873	0.77	Q			V
22+ 0	6.4922	0.71	Q			V
22+ 5	6.4971	0.72	Q			V
22+10	6.5028	0.83	Q			V
22+15	6.5090	0.89	Q			V
22+20	6.5151	0.89	Q			V
22+25	6.5204	0.77	Q			V
22+30	6.5253	0.71	Q			V
22+35	6.5300	0.68	Q			V
22+40	6.5346	0.67	Q			V
22+45	6.5391	0.66	Q			V
22+50	6.5436	0.65	Q			V

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   22+55        6.5481       0.65  |Q          |           |           |          V|
   23+ 0        6.5526       0.65  |Q          |           |           |          V|
   23+ 5        6.5570       0.65  |Q          |           |           |          V|
   23+10        6.5614       0.64  |Q          |           |           |          V|
   23+15        6.5658       0.64  |Q          |           |           |          V|
   23+20        6.5702       0.64  |Q          |           |           |          V|
   23+25        6.5747       0.64  |Q          |           |           |          V|
   23+30        6.5791       0.64  |Q          |           |           |          V|
   23+35        6.5835       0.64  |Q          |           |           |          V|
   23+40        6.5879       0.64  |Q          |           |           |          V|
   23+45        6.5923       0.64  |Q          |           |           |          V|
   23+50        6.5967       0.64  |Q          |           |           |          V|
   23+55        6.6011       0.64  |Q          |           |           |          V|
   24+ 0        6.6055       0.64  |Q          |           |           |          V|
   24+ 5        6.6095       0.57  |Q          |           |           |          V|
   24+10        6.6117       0.32  Q           |           |           |          V|
   24+15        6.6129       0.17  Q           |           |           |          V|
   24+20        6.6137       0.11  Q           |           |           |          V|
   24+25        6.6142       0.08  Q           |           |           |          V|
   24+30        6.6145       0.05  Q           |           |           |          V|
   24+35        6.6148       0.04  Q           |           |           |          V|
   24+40        6.6150       0.02  Q           |           |           |          V|
   24+45        6.6151       0.02  Q           |           |           |          V|
   24+50        6.6151       0.01  Q           |           |           |          V|
   24+55        6.6152       0.01  Q           |           |           |          V|
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     U n i t   H y d r o g r a p h   A n a l y s i s

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           Study date  08/22/13 File: 32786B2Nat242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6194

------------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format
------------------------------------------------------------------------
```

TTM 36557
2-Year 24-Hour Unit Hydrograph Analysis Area "B" Subarea 2
Existing Natural Condition

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------------------------------------------------------------------------
Drainage Area =      32.70(Ac.)  =      0.051 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =32.70(Ac.) = 0.051 Sq. Mi.
Length along longest watercourse =    3306.00(Ft.)
Length along longest watercourse measured to centroid =    2003.00(Ft.)
Length along longest watercourse =      0.626 Mi.
Length along longest watercourse measured to centroid =      0.379 Mi.
Difference in elevation =     198.00(Ft.)
Slope along watercourse =    316.2250 Ft./Mi.
Average Manning's 'N' = 0.025
Lag time =    0.116 Hr.
Lag time =     6.98 Min.
25% of lag time =     1.75 Min.
40% of lag time =     2.79 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]        Rainfall(In)[2]       Weighting[1*2]
       32.70                2.48                    81.10

100 YEAR Area rainfall data:


Area(Ac.)[1]        Rainfall(In)[2]       Weighting[1*2]
       32.70                6.90                   225.63

STORM EVENT (YEAR) =    2.00
```

Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.480(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
32.700	81.00	0.000

Total Area Entered = 32.70(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
81.0	64.4	0.422	0.000	0.422	1.000	0.422
					Sum (F) =	0.422

Area averaged mean soil loss (F) (In/Hr) = 0.422
Minimum soil loss rate ((In/Hr)) = 0.211
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	71.597	11.036	3.637
2	0.167	143.194	40.912	13.483
3	0.250	214.791	22.602	7.449
4	0.333	286.388	8.868	2.923
5	0.417	357.985	5.390	1.776
6	0.500	429.582	3.545	1.168
7	0.583	501.179	2.402	0.792
8	0.667	572.776	1.844	0.608
9	0.750	644.373	1.300	0.429
10	0.833	715.970	0.901	0.297
11	0.917	787.567	0.717	0.236
12	1.000	859.164	0.482	0.159
			Sum = 100.000	Sum= 32.955

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.749)	0.018	0.002
2	0.17	0.07	0.020	(0.746)	0.018	0.002
3	0.25	0.07	0.020	(0.743)	0.018	0.002
4	0.33	0.10	0.030	(0.740)	0.027	0.003
5	0.42	0.10	0.030	(0.737)	0.027	0.003

6	0.50	0.10	0.030	(0.735)	0.027	0.003
7	0.58	0.10	0.030	(0.732)	0.027	0.003
8	0.67	0.10	0.030	(0.729)	0.027	0.003
9	0.75	0.10	0.030	(0.726)	0.027	0.003
10	0.83	0.13	0.040	(0.723)	0.036	0.004
11	0.92	0.13	0.040	(0.720)	0.036	0.004
12	1.00	0.13	0.040	(0.717)	0.036	0.004
13	1.08	0.10	0.030	(0.715)	0.027	0.003
14	1.17	0.10	0.030	(0.712)	0.027	0.003
15	1.25	0.10	0.030	(0.709)	0.027	0.003
16	1.33	0.10	0.030	(0.706)	0.027	0.003
17	1.42	0.10	0.030	(0.703)	0.027	0.003
18	1.50	0.10	0.030	(0.700)	0.027	0.003
19	1.58	0.10	0.030	(0.698)	0.027	0.003
20	1.67	0.10	0.030	(0.695)	0.027	0.003
21	1.75	0.10	0.030	(0.692)	0.027	0.003
22	1.83	0.13	0.040	(0.689)	0.036	0.004
23	1.92	0.13	0.040	(0.687)	0.036	0.004
24	2.00	0.13	0.040	(0.684)	0.036	0.004
25	2.08	0.13	0.040	(0.681)	0.036	0.004
26	2.17	0.13	0.040	(0.678)	0.036	0.004
27	2.25	0.13	0.040	(0.675)	0.036	0.004
28	2.33	0.13	0.040	(0.673)	0.036	0.004
29	2.42	0.13	0.040	(0.670)	0.036	0.004
30	2.50	0.13	0.040	(0.667)	0.036	0.004
31	2.58	0.17	0.050	(0.665)	0.045	0.005
32	2.67	0.17	0.050	(0.662)	0.045	0.005
33	2.75	0.17	0.050	(0.659)	0.045	0.005
34	2.83	0.17	0.050	(0.656)	0.045	0.005
35	2.92	0.17	0.050	(0.654)	0.045	0.005
36	3.00	0.17	0.050	(0.651)	0.045	0.005
37	3.08	0.17	0.050	(0.648)	0.045	0.005
38	3.17	0.17	0.050	(0.646)	0.045	0.005
39	3.25	0.17	0.050	(0.643)	0.045	0.005
40	3.33	0.17	0.050	(0.640)	0.045	0.005
41	3.42	0.17	0.050	(0.638)	0.045	0.005
42	3.50	0.17	0.050	(0.635)	0.045	0.005
43	3.58	0.17	0.050	(0.632)	0.045	0.005
44	3.67	0.17	0.050	(0.630)	0.045	0.005
45	3.75	0.17	0.050	(0.627)	0.045	0.005
46	3.83	0.20	0.060	(0.624)	0.054	0.006
47	3.92	0.20	0.060	(0.622)	0.054	0.006
48	4.00	0.20	0.060	(0.619)	0.054	0.006
49	4.08	0.20	0.060	(0.616)	0.054	0.006
50	4.17	0.20	0.060	(0.614)	0.054	0.006
51	4.25	0.20	0.060	(0.611)	0.054	0.006
52	4.33	0.23	0.069	(0.609)	0.062	0.007
53	4.42	0.23	0.069	(0.606)	0.062	0.007
54	4.50	0.23	0.069	(0.603)	0.062	0.007
55	4.58	0.23	0.069	(0.601)	0.062	0.007
56	4.67	0.23	0.069	(0.598)	0.062	0.007
57	4.75	0.23	0.069	(0.596)	0.062	0.007
58	4.83	0.27	0.079	(0.593)	0.071	0.008
59	4.92	0.27	0.079	(0.590)	0.071	0.008
60	5.00	0.27	0.079	(0.588)	0.071	0.008
61	5.08	0.20	0.060	(0.585)	0.054	0.006
62	5.17	0.20	0.060	(0.583)	0.054	0.006

63	5.25	0.20	0.060	(0.580)	0.054	0.006
64	5.33	0.23	0.069	(0.578)	0.062	0.007
65	5.42	0.23	0.069	(0.575)	0.062	0.007
66	5.50	0.23	0.069	(0.573)	0.062	0.007
67	5.58	0.27	0.079	(0.570)	0.071	0.008
68	5.67	0.27	0.079	(0.568)	0.071	0.008
69	5.75	0.27	0.079	(0.565)	0.071	0.008
70	5.83	0.27	0.079	(0.563)	0.071	0.008
71	5.92	0.27	0.079	(0.560)	0.071	0.008
72	6.00	0.27	0.079	(0.558)	0.071	0.008
73	6.08	0.30	0.089	(0.555)	0.080	0.009
74	6.17	0.30	0.089	(0.553)	0.080	0.009
75	6.25	0.30	0.089	(0.550)	0.080	0.009
76	6.33	0.30	0.089	(0.548)	0.080	0.009
77	6.42	0.30	0.089	(0.545)	0.080	0.009
78	6.50	0.30	0.089	(0.543)	0.080	0.009
79	6.58	0.33	0.099	(0.540)	0.089	0.010
80	6.67	0.33	0.099	(0.538)	0.089	0.010
81	6.75	0.33	0.099	(0.536)	0.089	0.010
82	6.83	0.33	0.099	(0.533)	0.089	0.010
83	6.92	0.33	0.099	(0.531)	0.089	0.010
84	7.00	0.33	0.099	(0.528)	0.089	0.010
85	7.08	0.33	0.099	(0.526)	0.089	0.010
86	7.17	0.33	0.099	(0.524)	0.089	0.010
87	7.25	0.33	0.099	(0.521)	0.089	0.010
88	7.33	0.37	0.109	(0.519)	0.098	0.011
89	7.42	0.37	0.109	(0.516)	0.098	0.011
90	7.50	0.37	0.109	(0.514)	0.098	0.011
91	7.58	0.40	0.119	(0.512)	0.107	0.012
92	7.67	0.40	0.119	(0.509)	0.107	0.012
93	7.75	0.40	0.119	(0.507)	0.107	0.012
94	7.83	0.43	0.129	(0.505)	0.116	0.013
95	7.92	0.43	0.129	(0.502)	0.116	0.013
96	8.00	0.43	0.129	(0.500)	0.116	0.013
97	8.08	0.50	0.149	(0.498)	0.134	0.015
98	8.17	0.50	0.149	(0.495)	0.134	0.015
99	8.25	0.50	0.149	(0.493)	0.134	0.015
100	8.33	0.50	0.149	(0.491)	0.134	0.015
101	8.42	0.50	0.149	(0.488)	0.134	0.015
102	8.50	0.50	0.149	(0.486)	0.134	0.015
103	8.58	0.53	0.159	(0.484)	0.143	0.016
104	8.67	0.53	0.159	(0.482)	0.143	0.016
105	8.75	0.53	0.159	(0.479)	0.143	0.016
106	8.83	0.57	0.169	(0.477)	0.152	0.017
107	8.92	0.57	0.169	(0.475)	0.152	0.017
108	9.00	0.57	0.169	(0.473)	0.152	0.017
109	9.08	0.63	0.188	(0.470)	0.170	0.019
110	9.17	0.63	0.188	(0.468)	0.170	0.019
111	9.25	0.63	0.188	(0.466)	0.170	0.019
112	9.33	0.67	0.198	(0.464)	0.179	0.020
113	9.42	0.67	0.198	(0.461)	0.179	0.020
114	9.50	0.67	0.198	(0.459)	0.179	0.020
115	9.58	0.70	0.208	(0.457)	0.187	0.021
116	9.67	0.70	0.208	(0.455)	0.187	0.021
117	9.75	0.70	0.208	(0.453)	0.187	0.021
118	9.83	0.73	0.218	(0.450)	0.196	0.022
119	9.92	0.73	0.218	(0.448)	0.196	0.022

120	10.00	0.73	0.218	(0.446)	0.196	0.022
121	10.08	0.50	0.149	(0.444)	0.134	0.015
122	10.17	0.50	0.149	(0.442)	0.134	0.015
123	10.25	0.50	0.149	(0.440)	0.134	0.015
124	10.33	0.50	0.149	(0.438)	0.134	0.015
125	10.42	0.50	0.149	(0.435)	0.134	0.015
126	10.50	0.50	0.149	(0.433)	0.134	0.015
127	10.58	0.67	0.198	(0.431)	0.179	0.020
128	10.67	0.67	0.198	(0.429)	0.179	0.020
129	10.75	0.67	0.198	(0.427)	0.179	0.020
130	10.83	0.67	0.198	(0.425)	0.179	0.020
131	10.92	0.67	0.198	(0.423)	0.179	0.020
132	11.00	0.67	0.198	(0.421)	0.179	0.020
133	11.08	0.63	0.188	(0.419)	0.170	0.019
134	11.17	0.63	0.188	(0.417)	0.170	0.019
135	11.25	0.63	0.188	(0.415)	0.170	0.019
136	11.33	0.63	0.188	(0.412)	0.170	0.019
137	11.42	0.63	0.188	(0.410)	0.170	0.019
138	11.50	0.63	0.188	(0.408)	0.170	0.019
139	11.58	0.57	0.169	(0.406)	0.152	0.017
140	11.67	0.57	0.169	(0.404)	0.152	0.017
141	11.75	0.57	0.169	(0.402)	0.152	0.017
142	11.83	0.60	0.179	(0.400)	0.161	0.018
143	11.92	0.60	0.179	(0.398)	0.161	0.018
144	12.00	0.60	0.179	(0.396)	0.161	0.018
145	12.08	0.83	0.248	(0.394)	0.223	0.025
146	12.17	0.83	0.248	(0.392)	0.223	0.025
147	12.25	0.83	0.248	(0.390)	0.223	0.025
148	12.33	0.87	0.258	(0.388)	0.232	0.026
149	12.42	0.87	0.258	(0.387)	0.232	0.026
150	12.50	0.87	0.258	(0.385)	0.232	0.026
151	12.58	0.93	0.278	(0.383)	0.250	0.028
152	12.67	0.93	0.278	(0.381)	0.250	0.028
153	12.75	0.93	0.278	(0.379)	0.250	0.028
154	12.83	0.97	0.288	(0.377)	0.259	0.029
155	12.92	0.97	0.288	(0.375)	0.259	0.029
156	13.00	0.97	0.288	(0.373)	0.259	0.029
157	13.08	1.13	0.337	(0.371)	0.304	0.034
158	13.17	1.13	0.337	(0.369)	0.304	0.034
159	13.25	1.13	0.337	(0.367)	0.304	0.034
160	13.33	1.13	0.337	(0.366)	0.304	0.034
161	13.42	1.13	0.337	(0.364)	0.304	0.034
162	13.50	1.13	0.337	(0.362)	0.304	0.034
163	13.58	0.77	0.228	(0.360)	0.205	0.023
164	13.67	0.77	0.228	(0.358)	0.205	0.023
165	13.75	0.77	0.228	(0.356)	0.205	0.023
166	13.83	0.77	0.228	(0.355)	0.205	0.023
167	13.92	0.77	0.228	(0.353)	0.205	0.023
168	14.00	0.77	0.228	(0.351)	0.205	0.023
169	14.08	0.90	0.268	(0.349)	0.241	0.027
170	14.17	0.90	0.268	(0.347)	0.241	0.027
171	14.25	0.90	0.268	(0.346)	0.241	0.027
172	14.33	0.87	0.258	(0.344)	0.232	0.026
173	14.42	0.87	0.258	(0.342)	0.232	0.026
174	14.50	0.87	0.258	(0.340)	0.232	0.026
175	14.58	0.87	0.258	(0.339)	0.232	0.026
176	14.67	0.87	0.258	(0.337)	0.232	0.026

177	14.75	0.87	0.258	(0.335)	0.232	0.026
178	14.83	0.83	0.248	(0.333)	0.223	0.025
179	14.92	0.83	0.248	(0.332)	0.223	0.025
180	15.00	0.83	0.248	(0.330)	0.223	0.025
181	15.08	0.80	0.238	(0.328)	0.214	0.024
182	15.17	0.80	0.238	(0.327)	0.214	0.024
183	15.25	0.80	0.238	(0.325)	0.214	0.024
184	15.33	0.77	0.228	(0.323)	0.205	0.023
185	15.42	0.77	0.228	(0.322)	0.205	0.023
186	15.50	0.77	0.228	(0.320)	0.205	0.023
187	15.58	0.63	0.188	(0.318)	0.170	0.019
188	15.67	0.63	0.188	(0.317)	0.170	0.019
189	15.75	0.63	0.188	(0.315)	0.170	0.019
190	15.83	0.63	0.188	(0.313)	0.170	0.019
191	15.92	0.63	0.188	(0.312)	0.170	0.019
192	16.00	0.63	0.188	(0.310)	0.170	0.019
193	16.08	0.13	0.040	(0.309)	0.036	0.004
194	16.17	0.13	0.040	(0.307)	0.036	0.004
195	16.25	0.13	0.040	(0.306)	0.036	0.004
196	16.33	0.13	0.040	(0.304)	0.036	0.004
197	16.42	0.13	0.040	(0.302)	0.036	0.004
198	16.50	0.13	0.040	(0.301)	0.036	0.004
199	16.58	0.10	0.030	(0.299)	0.027	0.003
200	16.67	0.10	0.030	(0.298)	0.027	0.003
201	16.75	0.10	0.030	(0.296)	0.027	0.003
202	16.83	0.10	0.030	(0.295)	0.027	0.003
203	16.92	0.10	0.030	(0.293)	0.027	0.003
204	17.00	0.10	0.030	(0.292)	0.027	0.003
205	17.08	0.17	0.050	(0.290)	0.045	0.005
206	17.17	0.17	0.050	(0.289)	0.045	0.005
207	17.25	0.17	0.050	(0.287)	0.045	0.005
208	17.33	0.17	0.050	(0.286)	0.045	0.005
209	17.42	0.17	0.050	(0.285)	0.045	0.005
210	17.50	0.17	0.050	(0.283)	0.045	0.005
211	17.58	0.17	0.050	(0.282)	0.045	0.005
212	17.67	0.17	0.050	(0.280)	0.045	0.005
213	17.75	0.17	0.050	(0.279)	0.045	0.005
214	17.83	0.13	0.040	(0.278)	0.036	0.004
215	17.92	0.13	0.040	(0.276)	0.036	0.004
216	18.00	0.13	0.040	(0.275)	0.036	0.004
217	18.08	0.13	0.040	(0.273)	0.036	0.004
218	18.17	0.13	0.040	(0.272)	0.036	0.004
219	18.25	0.13	0.040	(0.271)	0.036	0.004
220	18.33	0.13	0.040	(0.269)	0.036	0.004
221	18.42	0.13	0.040	(0.268)	0.036	0.004
222	18.50	0.13	0.040	(0.267)	0.036	0.004
223	18.58	0.10	0.030	(0.266)	0.027	0.003
224	18.67	0.10	0.030	(0.264)	0.027	0.003
225	18.75	0.10	0.030	(0.263)	0.027	0.003
226	18.83	0.07	0.020	(0.262)	0.018	0.002
227	18.92	0.07	0.020	(0.260)	0.018	0.002
228	19.00	0.07	0.020	(0.259)	0.018	0.002
229	19.08	0.10	0.030	(0.258)	0.027	0.003
230	19.17	0.10	0.030	(0.257)	0.027	0.003
231	19.25	0.10	0.030	(0.256)	0.027	0.003
232	19.33	0.13	0.040	(0.254)	0.036	0.004
233	19.42	0.13	0.040	(0.253)	0.036	0.004

234	19.50	0.13	0.040	(0.252)	0.036	0.004
235	19.58	0.10	0.030	(0.251)	0.027	0.003
236	19.67	0.10	0.030	(0.250)	0.027	0.003
237	19.75	0.10	0.030	(0.249)	0.027	0.003
238	19.83	0.07	0.020	(0.248)	0.018	0.002
239	19.92	0.07	0.020	(0.246)	0.018	0.002
240	20.00	0.07	0.020	(0.245)	0.018	0.002
241	20.08	0.10	0.030	(0.244)	0.027	0.003
242	20.17	0.10	0.030	(0.243)	0.027	0.003
243	20.25	0.10	0.030	(0.242)	0.027	0.003
244	20.33	0.10	0.030	(0.241)	0.027	0.003
245	20.42	0.10	0.030	(0.240)	0.027	0.003
246	20.50	0.10	0.030	(0.239)	0.027	0.003
247	20.58	0.10	0.030	(0.238)	0.027	0.003
248	20.67	0.10	0.030	(0.237)	0.027	0.003
249	20.75	0.10	0.030	(0.236)	0.027	0.003
250	20.83	0.07	0.020	(0.235)	0.018	0.002
251	20.92	0.07	0.020	(0.234)	0.018	0.002
252	21.00	0.07	0.020	(0.233)	0.018	0.002
253	21.08	0.10	0.030	(0.232)	0.027	0.003
254	21.17	0.10	0.030	(0.231)	0.027	0.003
255	21.25	0.10	0.030	(0.230)	0.027	0.003
256	21.33	0.07	0.020	(0.230)	0.018	0.002
257	21.42	0.07	0.020	(0.229)	0.018	0.002
258	21.50	0.07	0.020	(0.228)	0.018	0.002
259	21.58	0.10	0.030	(0.227)	0.027	0.003
260	21.67	0.10	0.030	(0.226)	0.027	0.003
261	21.75	0.10	0.030	(0.225)	0.027	0.003
262	21.83	0.07	0.020	(0.225)	0.018	0.002
263	21.92	0.07	0.020	(0.224)	0.018	0.002
264	22.00	0.07	0.020	(0.223)	0.018	0.002
265	22.08	0.10	0.030	(0.222)	0.027	0.003
266	22.17	0.10	0.030	(0.222)	0.027	0.003
267	22.25	0.10	0.030	(0.221)	0.027	0.003
268	22.33	0.07	0.020	(0.220)	0.018	0.002
269	22.42	0.07	0.020	(0.220)	0.018	0.002
270	22.50	0.07	0.020	(0.219)	0.018	0.002
271	22.58	0.07	0.020	(0.218)	0.018	0.002
272	22.67	0.07	0.020	(0.218)	0.018	0.002
273	22.75	0.07	0.020	(0.217)	0.018	0.002
274	22.83	0.07	0.020	(0.216)	0.018	0.002
275	22.92	0.07	0.020	(0.216)	0.018	0.002
276	23.00	0.07	0.020	(0.215)	0.018	0.002
277	23.08	0.07	0.020	(0.215)	0.018	0.002
278	23.17	0.07	0.020	(0.214)	0.018	0.002
279	23.25	0.07	0.020	(0.214)	0.018	0.002
280	23.33	0.07	0.020	(0.214)	0.018	0.002
281	23.42	0.07	0.020	(0.213)	0.018	0.002
282	23.50	0.07	0.020	(0.213)	0.018	0.002
283	23.58	0.07	0.020	(0.212)	0.018	0.002
284	23.67	0.07	0.020	(0.212)	0.018	0.002
285	23.75	0.07	0.020	(0.212)	0.018	0.002
286	23.83	0.07	0.020	(0.212)	0.018	0.002
287	23.92	0.07	0.020	(0.211)	0.018	0.002
288	24.00	0.07	0.020	(0.211)	0.018	0.002
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	3.0

```
Flood volume = Effective rainfall      0.25(In)
 times area      32.7(Ac.)/[(In)/(Ft.)] =       0.7(Ac.Ft)
Total soil loss =      2.23(In)
Total soil loss =     6.082(Ac.Ft)
Total rainfall =      2.48(In)
Flood volume =       29436.0 Cubic Feet
Total soil loss =      264923.7 Cubic Feet
-----------------------------------------------------------------
 Peak flow rate of this hydrograph =      1.099(CFS)
-----------------------------------------------------------------
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
                 R u n o f f     H y d r o g r a p h
-----------------------------------------------------------------
             Hydrograph in   5   Minute intervals ((CFS))

-----------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------
  0+ 5       0.0000      0.01  Q          |         |         |         |
  0+10       0.0003      0.03  Q          |         |         |         |
  0+15       0.0006      0.05  Q          |         |         |         |
  0+20       0.0010      0.06  Q          |         |         |         |
  0+25       0.0015      0.08  Q          |         |         |         |
  0+30       0.0021      0.08  Q          |         |         |         |
  0+35       0.0027      0.09  Q          |         |         |         |
  0+40       0.0034      0.09  Q          |         |         |         |
  0+45       0.0040      0.09  Q          |         |         |         |
  0+50       0.0047      0.10  Q          |         |         |         |
  0+55       0.0055      0.11  Q          |         |         |         |
  1+ 0       0.0063      0.12  Q          |         |         |         |
  1+ 5       0.0072      0.12  Q          |         |         |         |
  1+10       0.0079      0.11  Q          |         |         |         |
  1+15       0.0086      0.10  Q          |         |         |         |
  1+20       0.0093      0.10  Q          |         |         |         |
  1+25       0.0100      0.10  Q          |         |         |         |
  1+30       0.0107      0.10  Q          |         |         |         |
  1+35       0.0114      0.10  Q          |         |         |         |
  1+40       0.0121      0.10  Q          |         |         |         |
  1+45       0.0128      0.10  Q          |         |         |         |
  1+50       0.0135      0.10  Q          |         |         |         |
  1+55       0.0143      0.12  Q          |         |         |         |
  2+ 0       0.0151      0.12  Q          |         |         |         |
  2+ 5       0.0160      0.13  Q          |         |         |         |
  2+10       0.0168      0.13  Q          |         |         |         |
  2+15       0.0177      0.13  QV         |         |         |         |
  2+20       0.0186      0.13  QV         |         |         |         |
  2+25       0.0195      0.13  QV         |         |         |         |
  2+30       0.0204      0.13  QV         |         |         |         |
  2+35       0.0213      0.13  QV         |         |         |         |
  2+40       0.0223      0.15  QV         |         |         |         |
  2+45       0.0234      0.16  QV         |         |         |         |
  2+50       0.0245      0.16  QV         |         |         |         |
  2+55       0.0256      0.16  QV         |         |         |         |
  3+ 0       0.0267      0.16  QV         |         |         |         |
  3+ 5       0.0278      0.16  QV         |         |         |         |
  3+10       0.0289      0.16  QV         |         |         |         |
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3+15	0.0301	0.16	QV				
3+20	0.0312	0.16	QV				
3+25	0.0323	0.16	QV				
3+30	0.0334	0.16	QV				
3+35	0.0346	0.16	Q V				
3+40	0.0357	0.16	Q V				
3+45	0.0368	0.16	Q V				
3+50	0.0380	0.17	Q V				
3+55	0.0392	0.18	Q V				
4+ 0	0.0405	0.19	Q V				
4+ 5	0.0418	0.19	Q V				
4+10	0.0432	0.19	Q V				
4+15	0.0445	0.19	Q V				
4+20	0.0459	0.20	Q V				
4+25	0.0473	0.21	Q V				
4+30	0.0488	0.22	Q V				
4+35	0.0504	0.22	Q V				
4+40	0.0519	0.23	Q V				
4+45	0.0535	0.23	Q V				
4+50	0.0551	0.23	Q V				
4+55	0.0568	0.24	Q V				
5+ 0	0.0585	0.25	|Q V				
5+ 5	0.0602	0.25	Q V				
5+10	0.0617	0.22	Q V				
5+15	0.0632	0.21	Q V				
5+20	0.0646	0.21	Q V				
5+25	0.0661	0.22	Q V				
5+30	0.0677	0.22	Q V				
5+35	0.0693	0.23	Q V				
5+40	0.0710	0.24	Q V				
5+45	0.0727	0.25	|Q V				
5+50	0.0745	0.26	|Q V				
5+55	0.0762	0.26	|Q V				
6+ 0	0.0780	0.26	|Q V				
6+ 5	0.0798	0.26	|Q V				
6+10	0.0817	0.28	|Q V				
6+15	0.0837	0.29	|Q V				
6+20	0.0857	0.29	|Q V				
6+25	0.0877	0.29	|Q V				
6+30	0.0897	0.29	|Q V				
6+35	0.0917	0.30	|Q V				
6+40	0.0939	0.31	|Q V				
6+45	0.0961	0.32	|Q V				
6+50	0.0983	0.32	|Q V				
6+55	0.1005	0.32	|Q V				
7+ 0	0.1027	0.32	|Q V				
7+ 5	0.1050	0.33	|Q V				
7+10	0.1072	0.33	|Q V				
7+15	0.1095	0.33	|Q V				
7+20	0.1117	0.33	|Q V				
7+25	0.1141	0.34	|Q V				
7+30	0.1165	0.35	|Q V				
7+35	0.1190	0.36	|Q V				
7+40	0.1216	0.37	|Q V				
7+45	0.1242	0.38	|Q V				
7+50	0.1269	0.39	|Q V				
7+55	0.1297	0.40	|Q V				

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 8+ 0        0.1325       0.41  |Q     V  |          |          |          |
 8+ 5        0.1354       0.42  |Q      V |          |          |          |
 8+10        0.1386       0.45  |Q      V |          |          |          |
 8+15        0.1418       0.47  |Q      V |          |          |          |
 8+20        0.1451       0.48  |Q      V |          |          |          |
 8+25        0.1484       0.48  |Q      V |          |          |          |
 8+30        0.1518       0.48  |Q      V |          |          |          |
 8+35        0.1551       0.49  |Q       V|          |          |          |
 8+40        0.1586       0.51  | Q      V|          |          |          |
 8+45        0.1622       0.51  | Q      V|          |          |          |
 8+50        0.1657       0.52  | Q      V|          |          |          |
 8+55        0.1694       0.54  | Q       V          |          |          |
 9+ 0        0.1732       0.55  | Q       V          |          |          |
 9+ 5        0.1770       0.56  | Q       V          |          |          |
 9+10        0.1810       0.59  | Q       V          |          |          |
 9+15        0.1852       0.60  | Q       V          |          |          |
 9+20        0.1894       0.61  | Q       |V         |          |          |
 9+25        0.1937       0.63  | Q       |V         |          |          |
 9+30        0.1982       0.64  | Q       |V         |          |          |
 9+35        0.2026       0.65  | Q       |V         |          |          |
 9+40        0.2072       0.67  | Q       | V        |          |          |
 9+45        0.2118       0.67  | Q       | V        |          |          |
 9+50        0.2165       0.68  | Q       | V        |          |          |
 9+55        0.2214       0.70  | Q       |  V       |          |          |
10+ 0        0.2262       0.71  | Q       |  V       |          |          |
10+ 5        0.2310       0.69  | Q       |  V       |          |          |
10+10        0.2351       0.60  | Q       |  V       |          |          |
10+15        0.2388       0.55  | Q       |   V      |          |          |
10+20        0.2424       0.53  | Q       |   V      |          |          |
10+25        0.2460       0.51  | Q       |   V      |          |          |
10+30        0.2495       0.51  | Q       |   V      |          |          |
10+35        0.2531       0.52  | Q       |   V      |          |          |
10+40        0.2571       0.58  | Q       |    V     |          |          |
10+45        0.2613       0.62  | Q       |    V     |          |          |
10+50        0.2657       0.63  | Q       |    V     |          |          |
10+55        0.2701       0.64  | Q       |    V     |          |          |
11+ 0        0.2745       0.64  | Q       |     V    |          |          |
11+ 5        0.2789       0.64  | Q       |     V    |          |          |
11+10        0.2833       0.63  | Q       |     V    |          |          |
11+15        0.2876       0.63  | Q       |      V   |          |          |
11+20        0.2919       0.62  | Q       |      V   |          |          |
11+25        0.2962       0.62  | Q       |      V   |          |          |
11+30        0.3005       0.62  | Q       |      V   |          |          |
11+35        0.3047       0.62  | Q       |       V  |          |          |
11+40        0.3088       0.59  | Q       |       V  |          |          |
11+45        0.3127       0.57  | Q       |       V  |          |          |
11+50        0.3166       0.57  | Q       |       V  |          |          |
11+55        0.3206       0.58  | Q       |       V  |          |          |
12+ 0        0.3247       0.59  | Q       |        V|          |          |
12+ 5        0.3289       0.61  | Q       |        V|          |          |
12+10        0.3338       0.71  | Q       |        V|          |          |
12+15        0.3390       0.76  |  Q      |         V          |          |
12+20        0.3444       0.78  |  Q      |         V          |          |
12+25        0.3499       0.81  |  Q      |         V          |          |
12+30        0.3556       0.82  |  Q      |         |V         |          |
12+35        0.3614       0.84  |  Q      |         |V         |          |
12+40        0.3674       0.87  |  Q      |         |V         |          |
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12+45      0.3735     0.89  |  Q      |         | V       |         |
12+50      0.3798     0.90  |  Q      |         | V       |         |
12+55      0.3861     0.92  |  Q      |         | V       |         |
13+ 0      0.3926     0.93  |  Q      |         |  V      |         |
13+ 5      0.3992     0.96  |  Q      |         |  V      |         |
13+10      0.4062     1.03  |   Q     |         |   V     |         |
13+15      0.4136     1.07  |   Q     |         |   V     |         |
13+20      0.4210     1.08  |   Q     |         |   V     |         |
13+25      0.4286     1.09  |   Q     |         |    V    |         |
13+30      0.4361     1.10  |   Q     |         |    V    |         |
13+35      0.4434     1.06  |   Q     |         |     V   |         |
13+40      0.4498     0.92  |  Q      |         |     V   |         |
13+45      0.4556     0.84  |  Q      |         |     V   |         |
13+50      0.4611     0.81  |  Q      |         |      V  |         |
13+55      0.4666     0.79  |  Q      |         |      V  |         |
14+ 0      0.4720     0.78  |  Q      |         |      V  |         |
14+ 5      0.4774     0.79  |  Q      |         |       V |         |
14+10      0.4831     0.83  |  Q      |         |       V |         |
14+15      0.4890     0.86  |  Q      |         |       V |         |
14+20      0.4949     0.86  |  Q      |         |        V|         |
14+25      0.5008     0.85  |  Q      |         |        V|         |
14+30      0.5067     0.85  |  Q      |         |        V|         |
14+35      0.5125     0.85  |  Q      |         |         V         |
14+40      0.5184     0.85  |  Q      |         |         V         |
14+45      0.5242     0.85  |  Q      |         |         |V        |
14+50      0.5301     0.85  |  Q      |         |         |V        |
14+55      0.5358     0.83  |  Q      |         |         |V        |
15+ 0      0.5415     0.83  |  Q      |         |         | V       |
15+ 5      0.5471     0.82  |  Q      |         |         | V       |
15+10      0.5527     0.80  |  Q      |         |         | V       |
15+15      0.5582     0.80  |  Q      |         |         |  V      |
15+20      0.5636     0.79  |  Q      |         |         |  V      |
15+25      0.5689     0.77  |  Q      |         |         |  V      |
15+30      0.5742     0.76  |  Q      |         |         |  V      |
15+35      0.5793     0.75  | Q       |         |         |   V     |
15+40      0.5840     0.69  | Q       |         |         |   V     |
15+45      0.5886     0.66  | Q       |         |         |   V     |
15+50      0.5930     0.65  | Q       |         |         |    V    |
15+55      0.5974     0.64  | Q       |         |         |    V    |
16+ 0      0.6018     0.63  | Q       |         |         |    V    |
16+ 5      0.6057     0.57  | Q       |         |         |    V    |
16+10      0.6083     0.37  |Q        |         |         |     V   |
16+15      0.6101     0.26  |Q        |         |         |     V   |
16+20      0.6115     0.21  Q         |         |         |     V   |
16+25      0.6128     0.19  Q         |         |         |     V   |
16+30      0.6140     0.17  Q         |         |         |     V   |
16+35      0.6150     0.15  Q         |         |         |     V   |
16+40      0.6159     0.13  Q         |         |         |     V   |
16+45      0.6167     0.12  Q         |         |         |     V   |
16+50      0.6175     0.11  Q         |         |         |     V   |
16+55      0.6182     0.10  Q         |         |         |     V   |
17+ 0      0.6189     0.10  Q         |         |         |     V   |
17+ 5      0.6196     0.11  Q         |         |         |     V   |
17+10      0.6206     0.13  Q         |         |         |     V   |
17+15      0.6216     0.15  Q         |         |         |     V   |
17+20      0.6226     0.15  Q         |         |         |     V   |
17+25      0.6237     0.16  Q         |         |         |     V   |
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17+30	0.6248	0.16	Q				V
17+35	0.6259	0.16	Q				V
17+40	0.6270	0.16	Q				V
17+45	0.6281	0.16	Q				V
17+50	0.6292	0.16	Q				V
17+55	0.6302	0.15	Q				V
18+ 0	0.6312	0.14	Q				V
18+ 5	0.6321	0.14	Q				V
18+10	0.6330	0.13	Q				V
18+15	0.6340	0.13	Q				V
18+20	0.6349	0.13	Q				V
18+25	0.6358	0.13	Q				V
18+30	0.6367	0.13	Q				V
18+35	0.6376	0.13	Q				V
18+40	0.6384	0.11	Q				V
18+45	0.6391	0.11	Q				V
18+50	0.6398	0.10	Q				V
18+55	0.6404	0.08	Q				V
19+ 0	0.6409	0.08	Q				V
19+ 5	0.6414	0.08	Q				V
19+10	0.6420	0.09	Q				V
19+15	0.6427	0.09	Q				V
19+20	0.6433	0.10	Q				V
19+25	0.6441	0.11	Q				V
19+30	0.6449	0.12	Q				V
19+35	0.6458	0.12	Q				V
19+40	0.6465	0.11	Q				V
19+45	0.6472	0.10	Q				V
19+50	0.6479	0.10	Q				V
19+55	0.6485	0.08	Q				V
20+ 0	0.6490	0.08	Q				V
20+ 5	0.6495	0.08	Q				V
20+10	0.6501	0.09	Q				V
20+15	0.6508	0.09	Q				V
20+20	0.6514	0.09	Q				V
20+25	0.6521	0.10	Q				V
20+30	0.6527	0.10	Q				V
20+35	0.6534	0.10	Q				V
20+40	0.6541	0.10	Q				V
20+45	0.6547	0.10	Q				V
20+50	0.6554	0.09	Q				V
20+55	0.6559	0.08	Q				V
21+ 0	0.6565	0.07	Q				V
21+ 5	0.6570	0.07	Q				V
21+10	0.6576	0.09	Q				V
21+15	0.6582	0.09	Q				V
21+20	0.6588	0.09	Q				V
21+25	0.6594	0.08	Q				V
21+30	0.6599	0.07	Q				V
21+35	0.6604	0.07	Q				V
21+40	0.6609	0.09	Q				V
21+45	0.6616	0.09	Q				V
21+50	0.6622	0.09	Q				V
21+55	0.6627	0.08	Q				V
22+ 0	0.6632	0.07	Q				V
22+ 5	0.6637	0.07	Q				V
22+10	0.6643	0.09	Q				V

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  22+15       0.6650      0.09  Q          |          |          |          V|
  22+20       0.6656      0.09  Q          |          |          |          V|
  22+25       0.6661      0.08  Q          |          |          |          V|
  22+30       0.6666      0.07  Q          |          |          |          V|
  22+35       0.6671      0.07  Q          |          |          |          V|
  22+40       0.6676      0.07  Q          |          |          |          V|
  22+45       0.6680      0.07  Q          |          |          |          V|
  22+50       0.6685      0.07  Q          |          |          |          V|
  22+55       0.6689      0.07  Q          |          |          |          V|
  23+ 0       0.6694      0.07  Q          |          |          |          V|
  23+ 5       0.6699      0.07  Q          |          |          |          V|
  23+10       0.6703      0.07  Q          |          |          |          V|
  23+15       0.6708      0.07  Q          |          |          |          V|
  23+20       0.6712      0.07  Q          |          |          |          V|
  23+25       0.6717      0.07  Q          |          |          |          V|
  23+30       0.6721      0.07  Q          |          |          |          V|
  23+35       0.6726      0.07  Q          |          |          |          V|
  23+40       0.6730      0.07  Q          |          |          |          V|
  23+45       0.6735      0.07  Q          |          |          |          V|
  23+50       0.6739      0.07  Q          |          |          |          V|
  23+55       0.6744      0.07  Q          |          |          |          V|
  24+ 0       0.6748      0.07  Q          |          |          |          V|
  24+ 5       0.6752      0.06  Q          |          |          |          V|
  24+10       0.6754      0.03  Q          |          |          |          V|
  24+15       0.6755      0.02  Q          |          |          |          V|
  24+20       0.6756      0.01  Q          |          |          |          V|
  24+25       0.6757      0.01  Q          |          |          |          V|
  24+30       0.6757      0.01  Q          |          |          |          V|
  24+35       0.6757      0.00  Q          |          |          |          V|
  24+40       0.6757      0.00  Q          |          |          |          V|
  24+45       0.6757      0.00  Q          |          |          |          V|
  24+50       0.6758      0.00  Q          |          |          |          V|
  24+55       0.6758      0.00  Q          |          |          |           V
-------------------------------------------------------------------------
```

```
      U n i t   H y d r o g r a p h   A n a l y s i s

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            Study date  08/22/13 File: 32786B3Nat242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6194

--------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format
--------------------------------------------------------------------
```

TTM 36557
2-Year 24-Hour Unit Hydrograph Analysis Area "B" Subarea 3
Existing Natural Condition

```
--------------------------------------------------------------------
Drainage Area =       3.90(Ac.)  =      0.006 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 3.90(Ac.) = 0.006 Sq. Mi.
Length along longest watercourse =    1062.00(Ft.)
Length along longest watercourse measured to centroid =     661.00(Ft.)
Length along longest watercourse =      0.201 Mi.
Length along longest watercourse measured to centroid =      0.125 Mi.
Difference in elevation =      53.50(Ft.)
Slope along watercourse =    265.9887 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time =    0.062 Hr.
Lag time =     3.69 Min.
25% of lag time =     0.92 Min.
40% of lag time =     1.48 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]        Rainfall(In)[2]      Weighting[1*2]
        3.90                2.48                    9.67

100 YEAR Area rainfall data:


Area(Ac.)[1]        Rainfall(In)[2]      Weighting[1*2]
        3.90                6.90                   26.91

STORM EVENT (YEAR) =    2.00
```

Area Averaged 2-Year Rainfall = 2.480(In)
Area Averaged 100-Year Rainfall = 6.900(In)

Point rain (area averaged) = 2.480(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 2.480(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
3.900	81.00	0.000

Total Area Entered = 3.90(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
81.0	64.4	0.422	0.000	0.422	1.000	0.422
					Sum (F) =	0.422

Area averaged mean soil loss (F) (In/Hr) = 0.422
Minimum soil loss rate ((In/Hr)) = 0.211
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	135.459	29.490	1.159
2	0.167	270.918	47.989	1.886
3	0.250	406.377	12.112	0.476
4	0.333	541.836	5.367	0.211
5	0.417	677.295	2.915	0.115
6	0.500	812.755	2.128	0.084
			Sum = 100.000	Sum= 3.930

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.749)	0.018	0.002
2	0.17	0.07	0.020	(0.746)	0.018	0.002
3	0.25	0.07	0.020	(0.743)	0.018	0.002
4	0.33	0.10	0.030	(0.740)	0.027	0.003
5	0.42	0.10	0.030	(0.737)	0.027	0.003
6	0.50	0.10	0.030	(0.735)	0.027	0.003
7	0.58	0.10	0.030	(0.732)	0.027	0.003
8	0.67	0.10	0.030	(0.729)	0.027	0.003
9	0.75	0.10	0.030	(0.726)	0.027	0.003
10	0.83	0.13	0.040	(0.723)	0.036	0.004
11	0.92	0.13	0.040	(0.720)	0.036	0.004

12	1.00	0.13	0.040	(0.717)	0.036	0.004
13	1.08	0.10	0.030	(0.715)	0.027	0.003
14	1.17	0.10	0.030	(0.712)	0.027	0.003
15	1.25	0.10	0.030	(0.709)	0.027	0.003
16	1.33	0.10	0.030	(0.706)	0.027	0.003
17	1.42	0.10	0.030	(0.703)	0.027	0.003
18	1.50	0.10	0.030	(0.700)	0.027	0.003
19	1.58	0.10	0.030	(0.698)	0.027	0.003
20	1.67	0.10	0.030	(0.695)	0.027	0.003
21	1.75	0.10	0.030	(0.692)	0.027	0.003
22	1.83	0.13	0.040	(0.689)	0.036	0.004
23	1.92	0.13	0.040	(0.687)	0.036	0.004
24	2.00	0.13	0.040	(0.684)	0.036	0.004
25	2.08	0.13	0.040	(0.681)	0.036	0.004
26	2.17	0.13	0.040	(0.678)	0.036	0.004
27	2.25	0.13	0.040	(0.675)	0.036	0.004
28	2.33	0.13	0.040	(0.673)	0.036	0.004
29	2.42	0.13	0.040	(0.670)	0.036	0.004
30	2.50	0.13	0.040	(0.667)	0.036	0.004
31	2.58	0.17	0.050	(0.665)	0.045	0.005
32	2.67	0.17	0.050	(0.662)	0.045	0.005
33	2.75	0.17	0.050	(0.659)	0.045	0.005
34	2.83	0.17	0.050	(0.656)	0.045	0.005
35	2.92	0.17	0.050	(0.654)	0.045	0.005
36	3.00	0.17	0.050	(0.651)	0.045	0.005
37	3.08	0.17	0.050	(0.648)	0.045	0.005
38	3.17	0.17	0.050	(0.646)	0.045	0.005
39	3.25	0.17	0.050	(0.643)	0.045	0.005
40	3.33	0.17	0.050	(0.640)	0.045	0.005
41	3.42	0.17	0.050	(0.638)	0.045	0.005
42	3.50	0.17	0.050	(0.635)	0.045	0.005
43	3.58	0.17	0.050	(0.632)	0.045	0.005
44	3.67	0.17	0.050	(0.630)	0.045	0.005
45	3.75	0.17	0.050	(0.627)	0.045	0.005
46	3.83	0.20	0.060	(0.624)	0.054	0.006
47	3.92	0.20	0.060	(0.622)	0.054	0.006
48	4.00	0.20	0.060	(0.619)	0.054	0.006
49	4.08	0.20	0.060	(0.616)	0.054	0.006
50	4.17	0.20	0.060	(0.614)	0.054	0.006
51	4.25	0.20	0.060	(0.611)	0.054	0.006
52	4.33	0.23	0.069	(0.609)	0.062	0.007
53	4.42	0.23	0.069	(0.606)	0.062	0.007
54	4.50	0.23	0.069	(0.603)	0.062	0.007
55	4.58	0.23	0.069	(0.601)	0.062	0.007
56	4.67	0.23	0.069	(0.598)	0.062	0.007
57	4.75	0.23	0.069	(0.596)	0.062	0.007
58	4.83	0.27	0.079	(0.593)	0.071	0.008
59	4.92	0.27	0.079	(0.590)	0.071	0.008
60	5.00	0.27	0.079	(0.588)	0.071	0.008
61	5.08	0.20	0.060	(0.585)	0.054	0.006
62	5.17	0.20	0.060	(0.583)	0.054	0.006
63	5.25	0.20	0.060	(0.580)	0.054	0.006
64	5.33	0.23	0.069	(0.578)	0.062	0.007
65	5.42	0.23	0.069	(0.575)	0.062	0.007
66	5.50	0.23	0.069	(0.573)	0.062	0.007
67	5.58	0.27	0.079	(0.570)	0.071	0.008
68	5.67	0.27	0.079	(0.568)	0.071	0.008

69	5.75	0.27	0.079	(0.565)	0.071	0.008
70	5.83	0.27	0.079	(0.563)	0.071	0.008
71	5.92	0.27	0.079	(0.560)	0.071	0.008
72	6.00	0.27	0.079	(0.558)	0.071	0.008
73	6.08	0.30	0.089	(0.555)	0.080	0.009
74	6.17	0.30	0.089	(0.553)	0.080	0.009
75	6.25	0.30	0.089	(0.550)	0.080	0.009
76	6.33	0.30	0.089	(0.548)	0.080	0.009
77	6.42	0.30	0.089	(0.545)	0.080	0.009
78	6.50	0.30	0.089	(0.543)	0.080	0.009
79	6.58	0.33	0.099	(0.540)	0.089	0.010
80	6.67	0.33	0.099	(0.538)	0.089	0.010
81	6.75	0.33	0.099	(0.536)	0.089	0.010
82	6.83	0.33	0.099	(0.533)	0.089	0.010
83	6.92	0.33	0.099	(0.531)	0.089	0.010
84	7.00	0.33	0.099	(0.528)	0.089	0.010
85	7.08	0.33	0.099	(0.526)	0.089	0.010
86	7.17	0.33	0.099	(0.524)	0.089	0.010
87	7.25	0.33	0.099	(0.521)	0.089	0.010
88	7.33	0.37	0.109	(0.519)	0.098	0.011
89	7.42	0.37	0.109	(0.516)	0.098	0.011
90	7.50	0.37	0.109	(0.514)	0.098	0.011
91	7.58	0.40	0.119	(0.512)	0.107	0.012
92	7.67	0.40	0.119	(0.509)	0.107	0.012
93	7.75	0.40	0.119	(0.507)	0.107	0.012
94	7.83	0.43	0.129	(0.505)	0.116	0.013
95	7.92	0.43	0.129	(0.502)	0.116	0.013
96	8.00	0.43	0.129	(0.500)	0.116	0.013
97	8.08	0.50	0.149	(0.498)	0.134	0.015
98	8.17	0.50	0.149	(0.495)	0.134	0.015
99	8.25	0.50	0.149	(0.493)	0.134	0.015
100	8.33	0.50	0.149	(0.491)	0.134	0.015
101	8.42	0.50	0.149	(0.488)	0.134	0.015
102	8.50	0.50	0.149	(0.486)	0.134	0.015
103	8.58	0.53	0.159	(0.484)	0.143	0.016
104	8.67	0.53	0.159	(0.482)	0.143	0.016
105	8.75	0.53	0.159	(0.479)	0.143	0.016
106	8.83	0.57	0.169	(0.477)	0.152	0.017
107	8.92	0.57	0.169	(0.475)	0.152	0.017
108	9.00	0.57	0.169	(0.473)	0.152	0.017
109	9.08	0.63	0.188	(0.470)	0.170	0.019
110	9.17	0.63	0.188	(0.468)	0.170	0.019
111	9.25	0.63	0.188	(0.466)	0.170	0.019
112	9.33	0.67	0.198	(0.464)	0.179	0.020
113	9.42	0.67	0.198	(0.461)	0.179	0.020
114	9.50	0.67	0.198	(0.459)	0.179	0.020
115	9.58	0.70	0.208	(0.457)	0.187	0.021
116	9.67	0.70	0.208	(0.455)	0.187	0.021
117	9.75	0.70	0.208	(0.453)	0.187	0.021
118	9.83	0.73	0.218	(0.450)	0.196	0.022
119	9.92	0.73	0.218	(0.448)	0.196	0.022
120	10.00	0.73	0.218	(0.446)	0.196	0.022
121	10.08	0.50	0.149	(0.444)	0.134	0.015
122	10.17	0.50	0.149	(0.442)	0.134	0.015
123	10.25	0.50	0.149	(0.440)	0.134	0.015
124	10.33	0.50	0.149	(0.438)	0.134	0.015
125	10.42	0.50	0.149	(0.435)	0.134	0.015

126	10.50	0.50	0.149	(0.433)	0.134	0.015
127	10.58	0.67	0.198	(0.431)	0.179	0.020
128	10.67	0.67	0.198	(0.429)	0.179	0.020
129	10.75	0.67	0.198	(0.427)	0.179	0.020
130	10.83	0.67	0.198	(0.425)	0.179	0.020
131	10.92	0.67	0.198	(0.423)	0.179	0.020
132	11.00	0.67	0.198	(0.421)	0.179	0.020
133	11.08	0.63	0.188	(0.419)	0.170	0.019
134	11.17	0.63	0.188	(0.417)	0.170	0.019
135	11.25	0.63	0.188	(0.415)	0.170	0.019
136	11.33	0.63	0.188	(0.412)	0.170	0.019
137	11.42	0.63	0.188	(0.410)	0.170	0.019
138	11.50	0.63	0.188	(0.408)	0.170	0.019
139	11.58	0.57	0.169	(0.406)	0.152	0.017
140	11.67	0.57	0.169	(0.404)	0.152	0.017
141	11.75	0.57	0.169	(0.402)	0.152	0.017
142	11.83	0.60	0.179	(0.400)	0.161	0.018
143	11.92	0.60	0.179	(0.398)	0.161	0.018
144	12.00	0.60	0.179	(0.396)	0.161	0.018
145	12.08	0.83	0.248	(0.394)	0.223	0.025
146	12.17	0.83	0.248	(0.392)	0.223	0.025
147	12.25	0.83	0.248	(0.390)	0.223	0.025
148	12.33	0.87	0.258	(0.388)	0.232	0.026
149	12.42	0.87	0.258	(0.387)	0.232	0.026
150	12.50	0.87	0.258	(0.385)	0.232	0.026
151	12.58	0.93	0.278	(0.383)	0.250	0.028
152	12.67	0.93	0.278	(0.381)	0.250	0.028
153	12.75	0.93	0.278	(0.379)	0.250	0.028
154	12.83	0.97	0.288	(0.377)	0.259	0.029
155	12.92	0.97	0.288	(0.375)	0.259	0.029
156	13.00	0.97	0.288	(0.373)	0.259	0.029
157	13.08	1.13	0.337	(0.371)	0.304	0.034
158	13.17	1.13	0.337	(0.369)	0.304	0.034
159	13.25	1.13	0.337	(0.367)	0.304	0.034
160	13.33	1.13	0.337	(0.366)	0.304	0.034
161	13.42	1.13	0.337	(0.364)	0.304	0.034
162	13.50	1.13	0.337	(0.362)	0.304	0.034
163	13.58	0.77	0.228	(0.360)	0.205	0.023
164	13.67	0.77	0.228	(0.358)	0.205	0.023
165	13.75	0.77	0.228	(0.356)	0.205	0.023
166	13.83	0.77	0.228	(0.355)	0.205	0.023
167	13.92	0.77	0.228	(0.353)	0.205	0.023
168	14.00	0.77	0.228	(0.351)	0.205	0.023
169	14.08	0.90	0.268	(0.349)	0.241	0.027
170	14.17	0.90	0.268	(0.347)	0.241	0.027
171	14.25	0.90	0.268	(0.346)	0.241	0.027
172	14.33	0.87	0.258	(0.344)	0.232	0.026
173	14.42	0.87	0.258	(0.342)	0.232	0.026
174	14.50	0.87	0.258	(0.340)	0.232	0.026
175	14.58	0.87	0.258	(0.339)	0.232	0.026
176	14.67	0.87	0.258	(0.337)	0.232	0.026
177	14.75	0.87	0.258	(0.335)	0.232	0.026
178	14.83	0.83	0.248	(0.333)	0.223	0.025
179	14.92	0.83	0.248	(0.332)	0.223	0.025
180	15.00	0.83	0.248	(0.330)	0.223	0.025
181	15.08	0.80	0.238	(0.328)	0.214	0.024
182	15.17	0.80	0.238	(0.327)	0.214	0.024

183	15.25	0.80	0.238	(0.325)	0.214	0.024
184	15.33	0.77	0.228	(0.323)	0.205	0.023
185	15.42	0.77	0.228	(0.322)	0.205	0.023
186	15.50	0.77	0.228	(0.320)	0.205	0.023
187	15.58	0.63	0.188	(0.318)	0.170	0.019
188	15.67	0.63	0.188	(0.317)	0.170	0.019
189	15.75	0.63	0.188	(0.315)	0.170	0.019
190	15.83	0.63	0.188	(0.313)	0.170	0.019
191	15.92	0.63	0.188	(0.312)	0.170	0.019
192	16.00	0.63	0.188	(0.310)	0.170	0.019
193	16.08	0.13	0.040	(0.309)	0.036	0.004
194	16.17	0.13	0.040	(0.307)	0.036	0.004
195	16.25	0.13	0.040	(0.306)	0.036	0.004
196	16.33	0.13	0.040	(0.304)	0.036	0.004
197	16.42	0.13	0.040	(0.302)	0.036	0.004
198	16.50	0.13	0.040	(0.301)	0.036	0.004
199	16.58	0.10	0.030	(0.299)	0.027	0.003
200	16.67	0.10	0.030	(0.298)	0.027	0.003
201	16.75	0.10	0.030	(0.296)	0.027	0.003
202	16.83	0.10	0.030	(0.295)	0.027	0.003
203	16.92	0.10	0.030	(0.293)	0.027	0.003
204	17.00	0.10	0.030	(0.292)	0.027	0.003
205	17.08	0.17	0.050	(0.290)	0.045	0.005
206	17.17	0.17	0.050	(0.289)	0.045	0.005
207	17.25	0.17	0.050	(0.287)	0.045	0.005
208	17.33	0.17	0.050	(0.286)	0.045	0.005
209	17.42	0.17	0.050	(0.285)	0.045	0.005
210	17.50	0.17	0.050	(0.283)	0.045	0.005
211	17.58	0.17	0.050	(0.282)	0.045	0.005
212	17.67	0.17	0.050	(0.280)	0.045	0.005
213	17.75	0.17	0.050	(0.279)	0.045	0.005
214	17.83	0.13	0.040	(0.278)	0.036	0.004
215	17.92	0.13	0.040	(0.276)	0.036	0.004
216	18.00	0.13	0.040	(0.275)	0.036	0.004
217	18.08	0.13	0.040	(0.273)	0.036	0.004
218	18.17	0.13	0.040	(0.272)	0.036	0.004
219	18.25	0.13	0.040	(0.271)	0.036	0.004
220	18.33	0.13	0.040	(0.269)	0.036	0.004
221	18.42	0.13	0.040	(0.268)	0.036	0.004
222	18.50	0.13	0.040	(0.267)	0.036	0.004
223	18.58	0.10	0.030	(0.266)	0.027	0.003
224	18.67	0.10	0.030	(0.264)	0.027	0.003
225	18.75	0.10	0.030	(0.263)	0.027	0.003
226	18.83	0.07	0.020	(0.262)	0.018	0.002
227	18.92	0.07	0.020	(0.260)	0.018	0.002
228	19.00	0.07	0.020	(0.259)	0.018	0.002
229	19.08	0.10	0.030	(0.258)	0.027	0.003
230	19.17	0.10	0.030	(0.257)	0.027	0.003
231	19.25	0.10	0.030	(0.256)	0.027	0.003
232	19.33	0.13	0.040	(0.254)	0.036	0.004
233	19.42	0.13	0.040	(0.253)	0.036	0.004
234	19.50	0.13	0.040	(0.252)	0.036	0.004
235	19.58	0.10	0.030	(0.251)	0.027	0.003
236	19.67	0.10	0.030	(0.250)	0.027	0.003
237	19.75	0.10	0.030	(0.249)	0.027	0.003
238	19.83	0.07	0.020	(0.248)	0.018	0.002
239	19.92	0.07	0.020	(0.246)	0.018	0.002

240	20.00	0.07	0.020	(0.245)	0.018	0.002
241	20.08	0.10	0.030	(0.244)	0.027	0.003
242	20.17	0.10	0.030	(0.243)	0.027	0.003
243	20.25	0.10	0.030	(0.242)	0.027	0.003
244	20.33	0.10	0.030	(0.241)	0.027	0.003
245	20.42	0.10	0.030	(0.240)	0.027	0.003
246	20.50	0.10	0.030	(0.239)	0.027	0.003
247	20.58	0.10	0.030	(0.238)	0.027	0.003
248	20.67	0.10	0.030	(0.237)	0.027	0.003
249	20.75	0.10	0.030	(0.236)	0.027	0.003
250	20.83	0.07	0.020	(0.235)	0.018	0.002
251	20.92	0.07	0.020	(0.234)	0.018	0.002
252	21.00	0.07	0.020	(0.233)	0.018	0.002
253	21.08	0.10	0.030	(0.232)	0.027	0.003
254	21.17	0.10	0.030	(0.231)	0.027	0.003
255	21.25	0.10	0.030	(0.230)	0.027	0.003
256	21.33	0.07	0.020	(0.230)	0.018	0.002
257	21.42	0.07	0.020	(0.229)	0.018	0.002
258	21.50	0.07	0.020	(0.228)	0.018	0.002
259	21.58	0.10	0.030	(0.227)	0.027	0.003
260	21.67	0.10	0.030	(0.226)	0.027	0.003
261	21.75	0.10	0.030	(0.225)	0.027	0.003
262	21.83	0.07	0.020	(0.225)	0.018	0.002
263	21.92	0.07	0.020	(0.224)	0.018	0.002
264	22.00	0.07	0.020	(0.223)	0.018	0.002
265	22.08	0.10	0.030	(0.222)	0.027	0.003
266	22.17	0.10	0.030	(0.222)	0.027	0.003
267	22.25	0.10	0.030	(0.221)	0.027	0.003
268	22.33	0.07	0.020	(0.220)	0.018	0.002
269	22.42	0.07	0.020	(0.220)	0.018	0.002
270	22.50	0.07	0.020	(0.219)	0.018	0.002
271	22.58	0.07	0.020	(0.218)	0.018	0.002
272	22.67	0.07	0.020	(0.218)	0.018	0.002
273	22.75	0.07	0.020	(0.217)	0.018	0.002
274	22.83	0.07	0.020	(0.216)	0.018	0.002
275	22.92	0.07	0.020	(0.216)	0.018	0.002
276	23.00	0.07	0.020	(0.215)	0.018	0.002
277	23.08	0.07	0.020	(0.215)	0.018	0.002
278	23.17	0.07	0.020	(0.214)	0.018	0.002
279	23.25	0.07	0.020	(0.214)	0.018	0.002
280	23.33	0.07	0.020	(0.214)	0.018	0.002
281	23.42	0.07	0.020	(0.213)	0.018	0.002
282	23.50	0.07	0.020	(0.213)	0.018	0.002
283	23.58	0.07	0.020	(0.212)	0.018	0.002
284	23.67	0.07	0.020	(0.212)	0.018	0.002
285	23.75	0.07	0.020	(0.212)	0.018	0.002
286	23.83	0.07	0.020	(0.212)	0.018	0.002
287	23.92	0.07	0.020	(0.211)	0.018	0.002
288	24.00	0.07	0.020	(0.211)	0.018	0.002

(Loss Rate Not Used)

Sum = 100.0 Sum = 3.0

Flood volume = Effective rainfall 0.25(In)
times area 3.9(Ac.)/[(In)/(Ft.)] = 0.1(Ac.Ft)

Total soil loss = 2.23(In)
Total soil loss = 0.725(Ac.Ft)
Total rainfall = 2.48(In)
Flood volume = 3510.9 Cubic Feet

Total soil loss = 31598.2 Cubic Feet

Peak flow rate of this hydrograph = 0.133(CFS)

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24 - H O U R S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.00	Q				
0+10	0.0001	0.01	Q				
0+15	0.0001	0.01	Q				
0+20	0.0002	0.01	Q				
0+25	0.0002	0.01	Q				
0+30	0.0003	0.01	Q				
0+35	0.0004	0.01	Q				
0+40	0.0005	0.01	Q				
0+45	0.0006	0.01	Q				
0+50	0.0006	0.01	Q				
0+55	0.0007	0.01	Q				
1+ 0	0.0009	0.02	Q				
1+ 5	0.0009	0.01	Q				
1+10	0.0010	0.01	Q				
1+15	0.0011	0.01	Q				
1+20	0.0012	0.01	Q				
1+25	0.0013	0.01	Q				
1+30	0.0014	0.01	Q				
1+35	0.0014	0.01	Q				
1+40	0.0015	0.01	Q				
1+45	0.0016	0.01	Q				
1+50	0.0017	0.01	Q				
1+55	0.0018	0.01	Q				
2+ 0	0.0019	0.02	Q				
2+ 5	0.0020	0.02	Q				
2+10	0.0021	0.02	QV				
2+15	0.0022	0.02	QV				
2+20	0.0023	0.02	QV				
2+25	0.0024	0.02	QV				
2+30	0.0025	0.02	QV				
2+35	0.0027	0.02	QV				
2+40	0.0028	0.02	QV				
2+45	0.0029	0.02	QV				
2+50	0.0030	0.02	QV				
2+55	0.0032	0.02	QV				
3+ 0	0.0033	0.02	QV				
3+ 5	0.0035	0.02	QV				
3+10	0.0036	0.02	QV				
3+15	0.0037	0.02	QV				
3+20	0.0039	0.02	QV				
3+25	0.0040	0.02	QV				
3+30	0.0041	0.02	Q V				
3+35	0.0043	0.02	Q V				
3+40	0.0044	0.02	Q V				

3+45	0.0045	0.02	Q V				
3+50	0.0047	0.02	Q V				
3+55	0.0048	0.02	Q V				
4+ 0	0.0050	0.02	Q V				
4+ 5	0.0051	0.02	Q V				
4+10	0.0053	0.02	Q V				
4+15	0.0055	0.02	Q V				
4+20	0.0056	0.02	Q V				
4+25	0.0058	0.03	Q V				
4+30	0.0060	0.03	Q V				
4+35	0.0062	0.03	Q V				
4+40	0.0064	0.03	Q V				
4+45	0.0066	0.03	Q V				
4+50	0.0068	0.03	Q V				
4+55	0.0070	0.03	Q V				
5+ 0	0.0072	0.03	Q V				
5+ 5	0.0074	0.03	Q V				
5+10	0.0075	0.03	Q V				
5+15	0.0077	0.02	Q V				
5+20	0.0079	0.02	Q V				
5+25	0.0081	0.03	Q V				
5+30	0.0083	0.03	Q V				
5+35	0.0085	0.03	Q V				
5+40	0.0087	0.03	Q V				
5+45	0.0089	0.03	Q V				
5+50	0.0091	0.03	Q V				
5+55	0.0093	0.03	Q V				
6+ 0	0.0095	0.03	Q V				
6+ 5	0.0097	0.03	Q V				
6+10	0.0100	0.03	Q V				
6+15	0.0102	0.03	Q V				
6+20	0.0105	0.03	Q V				
6+25	0.0107	0.04	Q V				
6+30	0.0109	0.04	Q V				
6+35	0.0112	0.04	Q V				
6+40	0.0114	0.04	Q V				
6+45	0.0117	0.04	Q V				
6+50	0.0120	0.04	Q V				
6+55	0.0122	0.04	Q V				
7+ 0	0.0125	0.04	Q V				
7+ 5	0.0128	0.04	Q V				
7+10	0.0131	0.04	Q V				
7+15	0.0133	0.04	Q V				
7+20	0.0136	0.04	Q V				
7+25	0.0139	0.04	Q V				
7+30	0.0142	0.04	Q V				
7+35	0.0145	0.04	Q V				
7+40	0.0148	0.05	Q V				
7+45	0.0151	0.05	Q V				
7+50	0.0154	0.05	Q V				
7+55	0.0158	0.05	Q V				
8+ 0	0.0161	0.05	Q V				
8+ 5	0.0165	0.05	Q V				
8+10	0.0169	0.06	Q V				
8+15	0.0173	0.06	Q V				
8+20	0.0177	0.06	Q V				
8+25	0.0181	0.06	Q V				

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 8+30      0.0185     0.06  Q        V|         |         |         |
 8+35      0.0189     0.06  Q        V|         |         |         |
 8+40      0.0193     0.06  Q        V|         |         |         |
 8+45      0.0198     0.06  Q        V|         |         |         |
 8+50      0.0202     0.06  Q         V         |         |         |
 8+55      0.0206     0.07  Q         V         |         |         |
 9+ 0      0.0211     0.07  Q         V         |         |         |
 9+ 5      0.0216     0.07  Q         V         |         |         |
 9+10      0.0221     0.07  Q         V         |         |         |
 9+15      0.0226     0.07  Q         |V        |         |         |
 9+20      0.0231     0.07  Q         |V        |         |         |
 9+25      0.0236     0.08  Q         |V        |         |         |
 9+30      0.0242     0.08  Q         |V        |         |         |
 9+35      0.0247     0.08  Q         | V       |         |         |
 9+40      0.0253     0.08  Q         | V       |         |         |
 9+45      0.0258     0.08  Q         | V       |         |         |
 9+50      0.0264     0.08  Q         |  V      |         |         |
 9+55      0.0270     0.08  Q         |  V      |         |         |
10+ 0      0.0276     0.09  Q         |  V      |         |         |
10+ 5      0.0281     0.08  Q         |  V      |         |         |
10+10      0.0285     0.06  Q         |   V     |         |         |
10+15      0.0290     0.06  Q         |   V     |         |         |
10+20      0.0294     0.06  Q         |   V     |         |         |
10+25      0.0298     0.06  Q         |   V     |         |         |
10+30      0.0302     0.06  Q         |   V     |         |         |
10+35      0.0306     0.06  Q         |    V    |         |         |
10+40      0.0311     0.07  Q         |    V    |         |         |
10+45      0.0317     0.08  Q         |    V    |         |         |
10+50      0.0322     0.08  Q         |    V    |         |         |
10+55      0.0327     0.08  Q         |     V   |         |         |
11+ 0      0.0333     0.08  Q         |     V   |         |         |
11+ 5      0.0338     0.08  Q         |     V   |         |         |
11+10      0.0343     0.07  Q         |      V  |         |         |
11+15      0.0348     0.07  Q         |      V  |         |         |
11+20      0.0353     0.07  Q         |      V  |         |         |
11+25      0.0358     0.07  Q         |      V  |         |         |
11+30      0.0363     0.07  Q         |       V |         |         |
11+35      0.0368     0.07  Q         |       V |         |         |
11+40      0.0373     0.07  Q         |       V |         |         |
11+45      0.0378     0.07  Q         |       V |         |         |
11+50      0.0382     0.07  Q         |       V |         |         |
11+55      0.0387     0.07  Q         |        V|         |         |
12+ 0      0.0392     0.07  Q         |        V|         |         |
12+ 5      0.0397     0.08  Q         |        V|         |         |
12+10      0.0404     0.09  Q         |         V         |         |
12+15      0.0410     0.09  Q         |         V         |         |
12+20      0.0417     0.10  Q         |         V         |         |
12+25      0.0424     0.10  Q         |         |V        |         |
12+30      0.0431     0.10  Q         |         |V        |         |
12+35      0.0438     0.10  Q         |         |V        |         |
12+40      0.0445     0.11  Q         |         | V       |         |
12+45      0.0453     0.11  Q         |         | V       |         |
12+50      0.0460     0.11  Q         |         | V       |         |
12+55      0.0468     0.11  Q         |         |  V      |         |
13+ 0      0.0476     0.11  Q         |         |  V      |         |
13+ 5      0.0484     0.12  Q         |         |   V     |         |
13+10      0.0493     0.13  Q         |         |   V     |         |
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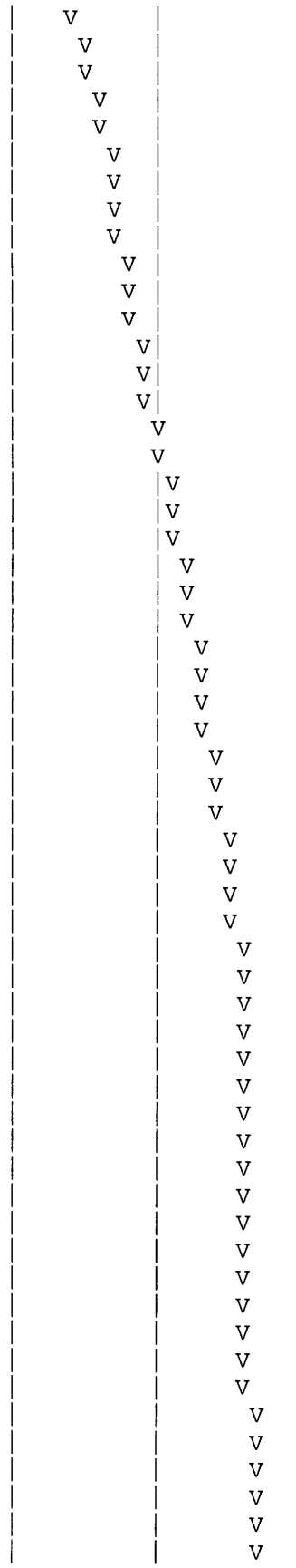
13+15	0.0502	0.13	Q
13+20	0.0511	0.13	Q
13+25	0.0520	0.13	Q
13+30	0.0529	0.13	Q
13+35	0.0537	0.12	Q
13+40	0.0544	0.10	Q
13+45	0.0551	0.09	Q
13+50	0.0557	0.09	Q
13+55	0.0563	0.09	Q
14+ 0	0.0569	0.09	Q
14+ 5	0.0576	0.09	Q
14+10	0.0583	0.10	Q
14+15	0.0590	0.10	Q
14+20	0.0597	0.10	Q
14+25	0.0604	0.10	Q
14+30	0.0611	0.10	Q
14+35	0.0618	0.10	Q
14+40	0.0625	0.10	Q
14+45	0.0632	0.10	Q
14+50	0.0639	0.10	Q
14+55	0.0646	0.10	Q
15+ 0	0.0653	0.10	Q
15+ 5	0.0659	0.10	Q
15+10	0.0666	0.09	Q
15+15	0.0672	0.09	Q
15+20	0.0679	0.09	Q
15+25	0.0685	0.09	Q
15+30	0.0691	0.09	Q
15+35	0.0697	0.09	Q
15+40	0.0702	0.08	Q
15+45	0.0708	0.08	Q
15+50	0.0713	0.07	Q
15+55	0.0718	0.07	Q
16+ 0	0.0723	0.07	Q
16+ 5	0.0727	0.06	Q
16+10	0.0729	0.03	Q
16+15	0.0730	0.02	Q
16+20	0.0732	0.02	Q
16+25	0.0733	0.02	Q
16+30	0.0734	0.02	Q
16+35	0.0735	0.01	Q
16+40	0.0736	0.01	Q
16+45	0.0737	0.01	Q
16+50	0.0737	0.01	Q
16+55	0.0738	0.01	Q
17+ 0	0.0739	0.01	Q
17+ 5	0.0740	0.01	Q
17+10	0.0741	0.02	Q
17+15	0.0742	0.02	Q
17+20	0.0744	0.02	Q
17+25	0.0745	0.02	Q
17+30	0.0746	0.02	Q
17+35	0.0748	0.02	Q
17+40	0.0749	0.02	Q
17+45	0.0751	0.02	Q
17+50	0.0752	0.02	Q
17+55	0.0753	0.02	Q



18+ 0	0.0754	0.02	Q				V
18+ 5	0.0755	0.02	Q				V
18+10	0.0756	0.02	Q				V
18+15	0.0757	0.02	Q				V
18+20	0.0758	0.02	Q				V
18+25	0.0759	0.02	Q				V
18+30	0.0760	0.02	Q				V
18+35	0.0761	0.01	Q				V
18+40	0.0762	0.01	Q				V
18+45	0.0763	0.01	Q				V
18+50	0.0764	0.01	Q				V
18+55	0.0765	0.01	Q				V
19+ 0	0.0765	0.01	Q				V
19+ 5	0.0766	0.01	Q				V
19+10	0.0766	0.01	Q				V
19+15	0.0767	0.01	Q				V
19+20	0.0768	0.01	Q				V
19+25	0.0769	0.01	Q				V
19+30	0.0770	0.02	Q				V
19+35	0.0771	0.01	Q				V
19+40	0.0772	0.01	Q				V
19+45	0.0773	0.01	Q				V
19+50	0.0774	0.01	Q				V
19+55	0.0774	0.01	Q				V
20+ 0	0.0775	0.01	Q				V
20+ 5	0.0775	0.01	Q				V
20+10	0.0776	0.01	Q				V
20+15	0.0777	0.01	Q				V
20+20	0.0778	0.01	Q				V
20+25	0.0779	0.01	Q				V
20+30	0.0779	0.01	Q				V
20+35	0.0780	0.01	Q				V
20+40	0.0781	0.01	Q				V
20+45	0.0782	0.01	Q				V
20+50	0.0782	0.01	Q				V
20+55	0.0783	0.01	Q				V
21+ 0	0.0784	0.01	Q				V
21+ 5	0.0784	0.01	Q				V
21+10	0.0785	0.01	Q				V
21+15	0.0786	0.01	Q				V
21+20	0.0786	0.01	Q				V
21+25	0.0787	0.01	Q				V
21+30	0.0788	0.01	Q				V
21+35	0.0788	0.01	Q				V
21+40	0.0789	0.01	Q				V
21+45	0.0790	0.01	Q				V
21+50	0.0791	0.01	Q				V
21+55	0.0791	0.01	Q				V
22+ 0	0.0792	0.01	Q				V
22+ 5	0.0792	0.01	Q				V
22+10	0.0793	0.01	Q				V
22+15	0.0794	0.01	Q				V
22+20	0.0795	0.01	Q				V
22+25	0.0795	0.01	Q				V
22+30	0.0796	0.01	Q				V
22+35	0.0796	0.01	Q				V
22+40	0.0797	0.01	Q				V

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  22+45       0.0797      0.01  Q          |          |          |         V|
  22+50       0.0798      0.01  Q          |          |          |         V|
  22+55       0.0798      0.01  Q          |          |          |         V|
  23+ 0       0.0799      0.01  Q          |          |          |         V|
  23+ 5       0.0799      0.01  Q          |          |          |         V|
  23+10       0.0800      0.01  Q          |          |          |         V|
  23+15       0.0801      0.01  Q          |          |          |         V|
  23+20       0.0801      0.01  Q          |          |          |         V|
  23+25       0.0802      0.01  Q          |          |          |         V|
  23+30       0.0802      0.01  Q          |          |          |         V|
  23+35       0.0803      0.01  Q          |          |          |         V|
  23+40       0.0803      0.01  Q          |          |          |         V|
  23+45       0.0804      0.01  Q          |          |          |         V|
  23+50       0.0804      0.01  Q          |          |          |         V|
  23+55       0.0805      0.01  Q          |          |          |         V|
  24+ 0       0.0805      0.01  Q          |          |          |         V|
  24+ 5       0.0806      0.01  Q          |          |          |         V|
  24+10       0.0806      0.00  Q          |          |          |         V|
  24+15       0.0806      0.00  Q          |          |          |         V|
  24+20       0.0806      0.00  Q          |          |          |         V|
  24+25       0.0806      0.00  Q          |          |          |          V
-------------------------------------------------------------------------
```

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
            Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                        Study date: 05/02/14
-----------------------------------------------------------------
```

TTM 36557
2-Year 24-Hour Flood Hydrograph Routing Area "B"
Developed Condition

```
-----------------------------------------------------------------
Program License Serial Number 6194

-----------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

            From study/file name: 32786BDev242.rte
****************************HYDROGRAPH DATA****************************
            Number of intervals =   299
            Time interval =    5.0 (Min.)
            Maximum/Peak flow rate =       10.745 (CFS)
            Total volume =       6.615 (Ac.Ft)
      Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
-----------------------------------------------------------------
Total number of inflow hydrograph intervals = 299
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-----------------------------------------------------------------
-----------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
-----------------------------------------------------------------
-----------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)     (Ac.Ft)
-----------------------------------------------------------------
    0.000      0.000      0.000      0.000       0.000
    0.330      0.040      0.180      0.039       0.041
    1.000      0.200      0.340      0.199       0.201
```

2.000	0.740	0.500	0.738	0.742
3.000	1.550	0.610	1.548	1.552
4.000	2.500	0.710	2.498	2.502
5.000	3.540	0.790	3.537	3.543
5.330	3.900	0.990	3.897	3.903
6.000	4.650	1.640	4.644	4.656
8.000	7.000	4.750	6.984	7.016
8.500	7.630	5.760	7.610	7.650
9.000	8.250	6.780	8.227	8.273
10.000	9.550	9.180	9.518	9.582
11.000	10.890	46.190	10.731	11.049
11.670	11.820	138.260	11.344	12.296
12.000	12.280	195.800	11.606	12.954
13.000	13.720	408.400	12.314	15.126

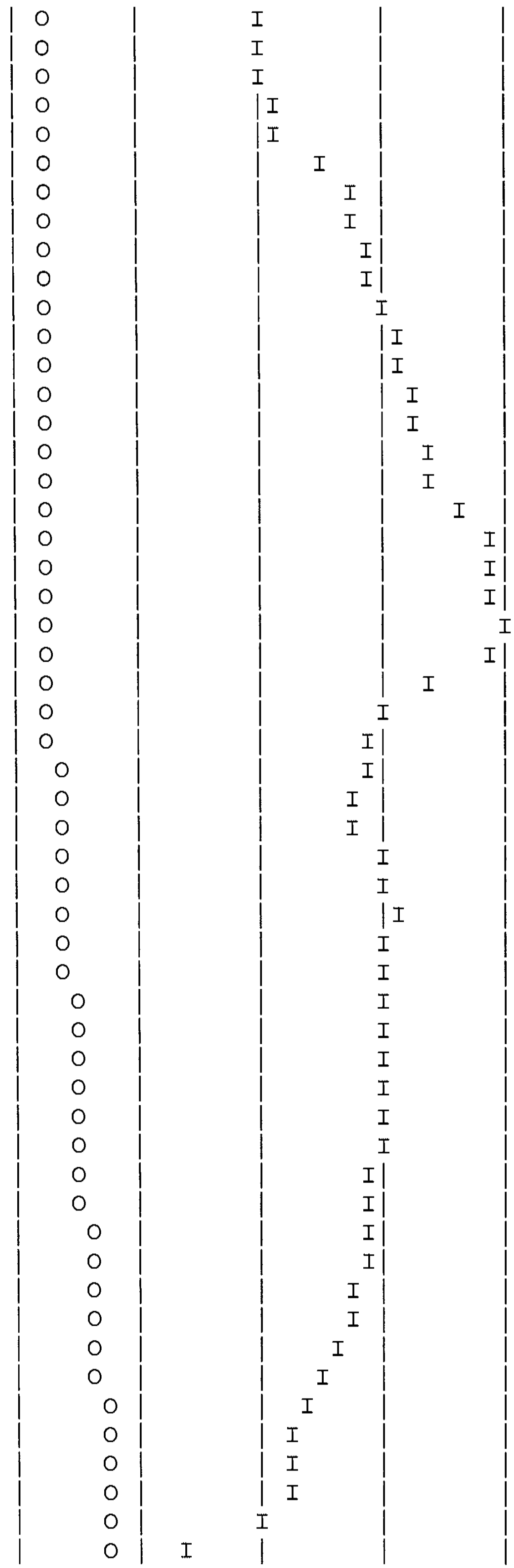
Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	2.7	5.37	8.06	10.75	Depth (Ft.)
0.083	0.07	0.00	0.000	O	|	|	|	|	0.00
0.167	0.32	0.01	0.002	O	|	|	|	|	0.01
0.250	0.47	0.02	0.004	OI	|	|	|	|	0.03
0.333	0.56	0.03	0.008	OI	|	|	|	|	0.06
0.417	0.72	0.05	0.012	O I	|	|	|	|	0.10
0.500	0.82	0.07	0.017	O I	|	|	|	|	0.14
0.583	0.87	0.10	0.022	O I	|	|	|	|	0.18
0.667	0.90	0.12	0.027	O I	|	|	|	|	0.22
0.750	0.92	0.15	0.032	O I	|	|	|	|	0.27
0.833	0.97	0.17	0.038	O I	|	|	|	|	0.31
0.917	1.10	0.18	0.044	O I	|	|	|	|	0.35
1.000	1.19	0.19	0.050	O I	|	|	|	|	0.37
1.083	1.19	0.20	0.057	O I	|	|	|	|	0.40
1.167	1.08	0.20	0.064	O I	|	|	|	|	0.43
1.250	1.02	0.21	0.069	O I	|	|	|	|	0.45
1.333	1.00	0.21	0.075	O I	|	|	|	|	0.48
1.417	0.99	0.22	0.080	O I	|	|	|	|	0.50
1.500	0.98	0.23	0.085	O I	|	|	|	|	0.52
1.583	0.97	0.23	0.091	O I	|	|	|	|	0.54
1.667	0.97	0.24	0.096	O I	|	|	|	|	0.56
1.750	0.97	0.24	0.101	O I	|	|	|	|	0.58
1.833	1.00	0.25	0.106	O I	|	|	|	|	0.61
1.917	1.12	0.25	0.111	O I	|	|	|	|	0.63
2.000	1.20	0.26	0.118	O I	|	|	|	|	0.66
2.083	1.22	0.26	0.124	O I	|	|	|	|	0.68
2.167	1.24	0.27	0.131	O I	|	|	|	|	0.71
2.250	1.25	0.28	0.138	O I	|	|	|	|	0.74
2.333	1.26	0.28	0.144	O I	|	|	|	|	0.77
2.417	1.27	0.29	0.151	O I	|	|	|	|	0.79
2.500	1.27	0.30	0.158	O I	|	|	|	|	0.82
2.583	1.31	0.30	0.165	O I	|	|	|	|	0.85
2.667	1.44	0.31	0.172	O I	|	|	|	|	0.88

2.750	1.52	0.32	0.180	O	I					0.92
2.833	1.54	0.33	0.188	O	I					0.95
2.917	1.56	0.34	0.197	O	I					0.99
3.000	1.57	0.34	0.205	O	I					1.01
3.083	1.58	0.34	0.214	O	I					1.03
3.167	1.59	0.35	0.222	O	I					1.04
3.250	1.59	0.35	0.231	O	I					1.06
3.333	1.60	0.35	0.239	O	I					1.07
3.417	1.60	0.35	0.248	O	I					1.09
3.500	1.60	0.36	0.256	O	I					1.10
3.583	1.60	0.36	0.265	O	I					1.12
3.667	1.60	0.36	0.273	O	I					1.14
3.750	1.60	0.36	0.282	O	I					1.15
3.833	1.63	0.37	0.291	O	I					1.17
3.917	1.76	0.37	0.300	O	I					1.18
4.000	1.84	0.37	0.310	O	I					1.20
4.083	1.86	0.38	0.320	O	I					1.22
4.167	1.88	0.38	0.330	O	I					1.24
4.250	1.89	0.38	0.340	O	I					1.26
4.333	1.94	0.38	0.351	O	I					1.28
4.417	2.07	0.39	0.362	O	I					1.30
4.500	2.15	0.39	0.374	O	I					1.32
4.583	2.18	0.40	0.386	O	I					1.34
4.667	2.20	0.40	0.398	O	I					1.37
4.750	2.21	0.40	0.411	O	I					1.39
4.833	2.26	0.41	0.424	O	I					1.41
4.917	2.39	0.41	0.437	O	I					1.44
5.000	2.47	0.41	0.451	O	I					1.46
5.083	2.43	0.42	0.465	O	I					1.49
5.167	2.20	0.42	0.478	O	I					1.51
5.250	2.07	0.43	0.489	O	I					1.54
5.333	2.05	0.43	0.501	O	I					1.56
5.417	2.14	0.43	0.512	O	I					1.58
5.500	2.20	0.44	0.524	O	I					1.60
5.583	2.25	0.44	0.536	O	I					1.62
5.667	2.38	0.44	0.549	O	I					1.65
5.750	2.47	0.45	0.563	O	I					1.67
5.833	2.50	0.45	0.577	O	I					1.70
5.917	2.52	0.46	0.591	O	I					1.72
6.000	2.53	0.46	0.605	O	I					1.75
6.083	2.57	0.46	0.620	O	I					1.78
6.167	2.71	0.47	0.635	O	I					1.80
6.250	2.79	0.47	0.650	O	I					1.83
6.333	2.82	0.48	0.666	O	I					1.86
6.417	2.84	0.48	0.683	O	I					1.89
6.500	2.86	0.49	0.699	O	I					1.92
6.583	2.90	0.49	0.715	O	I					1.95
6.667	3.03	0.50	0.732	O	I					1.99
6.750	3.11	0.50	0.750	O	I					2.01
6.833	3.14	0.50	0.768	O	I					2.03
6.917	3.16	0.51	0.786	O	I					2.06
7.000	3.18	0.51	0.805	O	I					2.08
7.083	3.18	0.51	0.823	O	I					2.10
7.167	3.19	0.51	0.841	O	I					2.13

7.250	3.19	0.52	0.860	O	I			2.15
7.333	3.23	0.52	0.878	O	I			2.17
7.417	3.36	0.52	0.897	O	I			2.19
7.500	3.44	0.52	0.917	O	I			2.22
7.583	3.50	0.53	0.937	O	I			2.24
7.667	3.64	0.53	0.958	O	I			2.27
7.750	3.73	0.53	0.980	O	I			2.30
7.833	3.80	0.54	1.002	O	I			2.32
7.917	3.95	0.54	1.025	O	I			2.35
8.000	4.04	0.54	1.049	O	I			2.38
8.083	4.15	0.55	1.074	O	I			2.41
8.167	4.43	0.55	1.099	O	I			2.44
8.250	4.60	0.55	1.127	O	I			2.48
8.333	4.67	0.56	1.155	O	I			2.51
8.417	4.71	0.56	1.183	O	I			2.55
8.500	4.74	0.56	1.212	O	I			2.58
8.583	4.79	0.57	1.241	O	I			2.62
8.667	4.93	0.57	1.270	O	I			2.65
8.750	5.02	0.58	1.301	O	I			2.69
8.833	5.09	0.58	1.332	O	I			2.73
8.917	5.24	0.58	1.363	O	I			2.77
9.000	5.33	0.59	1.396	O	I			2.81
9.083	5.43	0.59	1.429	O	I			2.85
9.167	5.71	0.60	1.463	O	I			2.89
9.250	5.88	0.60	1.499	O	I			2.94
9.333	5.98	0.61	1.535	O	I			2.98
9.417	6.15	0.61	1.573	O	I			3.02
9.500	6.26	0.62	1.611	O	I			3.06
9.583	6.34	0.62	1.650	O	I			3.11
9.667	6.50	0.62	1.690	O	I			3.15
9.750	6.60	0.63	1.731	O	I			3.19
9.833	6.67	0.63	1.772	O	I			3.23
9.917	6.83	0.64	1.815	O	I			3.28
10.000	6.92	0.64	1.857	O	I			3.32
10.083	6.73	0.65	1.900	O	I			3.37
10.167	5.88	0.65	1.939	O	I			3.41
10.250	5.37	0.65	1.973	O	I			3.45
10.333	5.17	0.66	2.005	O	I			3.48
10.417	5.06	0.66	2.036	O	I			3.51
10.500	4.98	0.66	2.066	O	I			3.54
10.583	5.09	0.67	2.096	O	I			3.57
10.667	5.68	0.67	2.128	O	I			3.61
10.750	6.03	0.67	2.164	O	I			3.65
10.833	6.16	0.68	2.201	O	I			3.69
10.917	6.23	0.68	2.239	O	I			3.73
11.000	6.27	0.69	2.278	O	I			3.77
11.083	6.28	0.69	2.316	O	I			3.81
11.167	6.18	0.69	2.354	O	I			3.85
11.250	6.13	0.70	2.392	O	I			3.89
11.333	6.12	0.70	2.429	O	I			3.93
11.417	6.11	0.71	2.466	O	I			3.96
11.500	6.11	0.71	2.504	O	I			4.00
11.583	6.04	0.71	2.541	O	I			4.04
11.667	5.78	0.72	2.576	O	I			4.07



11.750	5.62	0.72	2.611	4.11
11.833	5.59	0.72	2.644	4.14
11.917	5.68	0.72	2.678	4.17
12.000	5.73	0.73	2.712	4.20
12.083	5.98	0.73	2.748	4.24
12.167	6.86	0.73	2.787	4.28
12.250	7.40	0.74	2.831	4.32
12.333	7.64	0.74	2.878	4.36
12.417	7.89	0.74	2.926	4.41
12.500	8.05	0.75	2.976	4.46
12.583	8.20	0.75	3.026	4.51
12.667	8.52	0.75	3.079	4.56
12.750	8.71	0.76	3.133	4.61
12.833	8.83	0.76	3.188	4.66
12.917	9.02	0.77	3.244	4.72
13.000	9.14	0.77	3.302	4.77
13.083	9.35	0.78	3.360	4.83
13.167	10.02	0.78	3.421	4.89
13.250	10.42	0.79	3.486	4.95
13.333	10.58	0.80	3.553	5.01
13.417	10.68	0.83	3.621	5.07
13.500	10.75	0.87	3.688	5.14
13.583	10.43	0.91	3.755	5.20
13.667	9.07	0.94	3.816	5.25
13.750	8.26	0.97	3.869	5.30
13.833	7.96	1.01	3.918	5.35
13.917	7.77	1.05	3.965	5.39
14.000	7.66	1.09	4.011	5.43
14.083	7.70	1.13	4.056	5.47
14.167	8.14	1.17	4.103	5.51
14.250	8.39	1.21	4.152	5.55
14.333	8.44	1.25	4.201	5.60
14.417	8.36	1.29	4.250	5.64
14.500	8.30	1.34	4.299	5.69
14.583	8.31	1.38	4.346	5.73
14.667	8.31	1.42	4.394	5.77
14.750	8.32	1.46	4.441	5.81
14.833	8.29	1.50	4.488	5.86
14.917	8.17	1.54	4.535	5.90
15.000	8.10	1.58	4.580	5.94
15.083	8.03	1.62	4.624	5.98
15.167	7.89	1.66	4.668	6.02
15.250	7.80	1.72	4.710	6.05
15.333	7.73	1.77	4.752	6.09
15.417	7.58	1.83	4.792	6.12
15.500	7.48	1.88	4.831	6.15
15.583	7.31	1.93	4.869	6.19
15.667	6.78	1.98	4.904	6.22
15.750	6.46	2.02	4.936	6.24
15.833	6.33	2.06	4.966	6.27
15.917	6.25	2.10	4.995	6.29
16.000	6.20	2.13	5.023	6.32
16.083	5.67	2.17	5.049	6.34
16.167	3.75	2.19	5.067	6.35

16.250	2.59	2.20	5.073	OI				6.36
16.333	2.14	2.20	5.074	O				6.36
16.417	1.87	2.20	5.073	IO				6.36
16.500	1.68	2.20	5.070	I O				6.36
16.583	1.53	2.19	5.066	I O				6.35
16.667	1.31	2.18	5.061	I O				6.35
16.750	1.17	2.18	5.054	I O				6.34
16.833	1.09	2.17	5.047	I O				6.34
16.917	1.04	2.16	5.040	I O				6.33
17.000	0.99	2.15	5.032	I O				6.32
17.083	1.05	2.13	5.024	I O				6.32
17.167	1.29	2.13	5.017	I O				6.31
17.250	1.44	2.12	5.012	I O				6.31
17.333	1.49	2.11	5.008	I O				6.30
17.417	1.53	2.11	5.004	I O				6.30
17.500	1.55	2.10	5.000	I O				6.30
17.583	1.56	2.10	4.996	I O				6.29
17.667	1.58	2.09	4.992	I O				6.29
17.750	1.58	2.09	4.989	I O				6.29
17.833	1.56	2.08	4.985	I O				6.29
17.917	1.44	2.08	4.981	I O				6.28
18.000	1.37	2.07	4.977	I O				6.28
18.083	1.34	2.07	4.972	I O				6.27
18.167	1.32	2.06	4.967	I O				6.27
18.250	1.31	2.05	4.961	I O				6.27
18.333	1.30	2.05	4.956	I O				6.26
18.417	1.29	2.04	4.951	I O				6.26
18.500	1.29	2.03	4.946	I O				6.25
18.583	1.25	2.02	4.941	I O				6.25
18.667	1.12	2.02	4.935	I O				6.24
18.750	1.05	2.01	4.929	I O				6.24
18.833	0.98	2.00	4.922	I O				6.23
18.917	0.84	1.99	4.914	I O				6.23
19.000	0.75	1.98	4.906	I O				6.22
19.083	0.75	1.97	4.898	I O				6.21
19.167	0.85	1.96	4.890	I O				6.20
19.250	0.91	1.95	4.882	I O				6.20
19.333	0.96	1.94	4.875	I O				6.19
19.417	1.10	1.93	4.869	I O				6.19
19.500	1.18	1.92	4.864	I O				6.18
19.583	1.18	1.92	4.859	I O				6.18
19.667	1.07	1.91	4.853	I O				6.17
19.750	1.01	1.90	4.847	I O				6.17
19.833	0.96	1.89	4.841	I O				6.16
19.917	0.82	1.88	4.834	I O				6.16
20.000	0.74	1.87	4.827	I O				6.15
20.083	0.74	1.86	4.819	I O				6.14
20.167	0.85	1.85	4.812	I O				6.14
20.250	0.91	1.84	4.805	I O				6.13
20.333	0.93	1.84	4.799	I O				6.13
20.417	0.94	1.83	4.792	I O				6.12
20.500	0.94	1.82	4.786	I O				6.12
20.583	0.95	1.81	4.780	I O				6.11
20.667	0.95	1.80	4.774	I O				6.11

20.750	0.95	1.80	4.768	I O				6.10
20.833	0.92	1.79	4.763	I O				6.10
20.917	0.80	1.78	4.756	I O				6.09
21.000	0.73	1.77	4.749	I O				6.08
21.083	0.73	1.76	4.742	I O				6.08
21.167	0.84	1.75	4.735	I O				6.07
21.250	0.90	1.74	4.729	I O				6.07
21.333	0.89	1.74	4.724	I O				6.06
21.417	0.78	1.73	4.717	I O				6.06
21.500	0.71	1.72	4.711	I O				6.05
21.583	0.72	1.71	4.704	I O				6.05
21.667	0.83	1.70	4.697	I O				6.04
21.750	0.89	1.69	4.691	I O				6.04
21.833	0.89	1.69	4.686	I O				6.03
21.917	0.77	1.68	4.680	I O				6.03
22.000	0.71	1.67	4.674	I O				6.02
22.083	0.72	1.66	4.667	I O				6.01
22.167	0.83	1.65	4.661	I O				6.01
22.250	0.89	1.65	4.655	I O				6.00
22.333	0.89	1.64	4.650	I O				6.00
22.417	0.77	1.64	4.645	I O				6.00
22.500	0.71	1.63	4.639	I O				5.99
22.583	0.68	1.62	4.632	I O				5.98
22.667	0.67	1.62	4.626	I O				5.98
22.750	0.66	1.61	4.619	I O				5.97
22.833	0.65	1.61	4.612	I O				5.97
22.917	0.65	1.60	4.606	I O				5.96
23.000	0.65	1.60	4.599	I O				5.95
23.083	0.65	1.59	4.593	I O				5.95
23.167	0.64	1.58	4.586	I O				5.94
23.250	0.64	1.58	4.580	I O				5.94
23.333	0.64	1.57	4.573	I O				5.93
23.417	0.64	1.57	4.567	I O				5.93
23.500	0.64	1.56	4.561	I O				5.92
23.583	0.64	1.56	4.554	I O				5.91
23.667	0.64	1.55	4.548	I O				5.91
23.750	0.64	1.55	4.542	I O				5.90
23.833	0.64	1.54	4.536	I O				5.90
23.917	0.64	1.54	4.529	I O				5.89
24.000	0.64	1.53	4.523	I O				5.89
24.083	0.57	1.52	4.517	I O				5.88
24.167	0.32	1.52	4.509	I O				5.87
24.250	0.17	1.51	4.501	I O				5.87
24.333	0.11	1.50	4.491	I O				5.86
24.417	0.08	1.49	4.482	I O				5.85
24.500	0.05	1.49	4.472	I O				5.84
24.583	0.04	1.48	4.462	I O				5.83
24.667	0.02	1.47	4.452	I O				5.82
24.750	0.02	1.46	4.442	I O				5.81
24.833	0.01	1.45	4.432	I O				5.81
24.917	0.01	1.44	4.422	I O				5.80
25.000	0.00	1.43	4.412	I O				5.79
25.083	0.00	1.43	4.403	I O				5.78
25.167	0.00	1.42	4.393	I O				5.77

25.250	0.00	1.41	4.383	I	O				5.76
25.333	0.00	1.40	4.373	I	O				5.75
25.417	0.00	1.39	4.364	I	O				5.74
25.500	0.00	1.38	4.354	I	O				5.74
25.583	0.00	1.38	4.345	I	O				5.73
25.667	0.00	1.37	4.335	I	O				5.72
25.750	0.00	1.36	4.326	I	O				5.71
25.833	0.00	1.35	4.316	I	O				5.70
25.917	0.00	1.34	4.307	I	O				5.69
26.000	0.00	1.33	4.298	I	O				5.69
26.083	0.00	1.33	4.289	I	O				5.68
26.167	0.00	1.32	4.280	I	O				5.67
26.250	0.00	1.31	4.271	I	O				5.66
26.333	0.00	1.30	4.262	I	O				5.65
26.417	0.00	1.30	4.253	I	O				5.65
26.500	0.00	1.29	4.244	I	O				5.64
26.583	0.00	1.28	4.235	I	O				5.63
26.667	0.00	1.27	4.226	I	O				5.62
26.750	0.00	1.27	4.217	I	O				5.61
26.833	0.00	1.26	4.209	I	O				5.61
26.917	0.00	1.25	4.200	I	O				5.60
27.000	0.00	1.24	4.192	I	O				5.59
27.083	0.00	1.24	4.183	I	O				5.58
27.167	0.00	1.23	4.175	I	O				5.58
27.250	0.00	1.22	4.166	I	O				5.57
27.333	0.00	1.21	4.158	I	O				5.56
27.417	0.00	1.21	4.149	I	O				5.55
27.500	0.00	1.20	4.141	I	O				5.55
27.583	0.00	1.19	4.133	I	O				5.54
27.667	0.00	1.18	4.125	I	O				5.53
27.750	0.00	1.18	4.117	I	O				5.52
27.833	0.00	1.17	4.108	I	O				5.52
27.917	0.00	1.16	4.100	I	O				5.51
28.000	0.00	1.16	4.092	I	O				5.50
28.083	0.00	1.15	4.084	I	O				5.49
28.167	0.00	1.14	4.077	I	O				5.49
28.250	0.00	1.14	4.069	I	O				5.48
28.333	0.00	1.13	4.061	I	O				5.47
28.417	0.00	1.12	4.053	I	O				5.47
28.500	0.00	1.12	4.045	I	O				5.46
28.583	0.00	1.11	4.038	I	O				5.45
28.667	0.00	1.10	4.030	I	O				5.45
28.750	0.00	1.10	4.023	I	O				5.44
28.833	0.00	1.09	4.015	I	O				5.43
28.917	0.00	1.08	4.008	I	O				5.43
29.000	0.00	1.08	4.000	I	O				5.42
29.083	0.00	1.07	3.993	I	O				5.41
29.167	0.00	1.06	3.985	I	O				5.41
29.250	0.00	1.06	3.978	I	O				5.40
29.333	0.00	1.05	3.971	I	O				5.39
29.417	0.00	1.05	3.964	I	O				5.39
29.500	0.00	1.04	3.956	I	O				5.38
29.583	0.00	1.03	3.949	I	O				5.37
29.667	0.00	1.03	3.942	I	O				5.37

29.750	0.00	1.02	3.935	I O				5.36
29.833	0.00	1.01	3.928	I O				5.36
29.917	0.00	1.01	3.921	I O				5.35
30.000	0.00	1.00	3.914	I O				5.34
30.083	0.00	1.00	3.907	I O				5.34
30.167	0.00	0.99	3.901	I O				5.33
30.250	0.00	0.99	3.894	I O				5.32
30.333	0.00	0.98	3.887	I O				5.32
30.417	0.00	0.98	3.880	I O				5.31
30.500	0.00	0.98	3.873	I O				5.31
30.583	0.00	0.97	3.867	I O				5.30
30.667	0.00	0.97	3.860	I O				5.29
30.750	0.00	0.96	3.853	I O				5.29
30.833	0.00	0.96	3.847	I O				5.28
30.917	0.00	0.96	3.840	I O				5.28
31.000	0.00	0.95	3.834	I O				5.27
31.083	0.00	0.95	3.827	I O				5.26
31.167	0.00	0.95	3.821	I O				5.26
31.250	0.00	0.94	3.814	I O				5.25
31.333	0.00	0.94	3.808	I O				5.25
31.417	0.00	0.94	3.801	I O				5.24
31.500	0.00	0.93	3.795	I O				5.23
31.583	0.00	0.93	3.788	I O				5.23
31.667	0.00	0.92	3.782	I O				5.22
31.750	0.00	0.92	3.776	I O				5.22
31.833	0.00	0.92	3.769	I O				5.21
31.917	0.00	0.91	3.763	I O				5.20
32.000	0.00	0.91	3.757	I O				5.20
32.083	0.00	0.91	3.750	I O				5.19
32.167	0.00	0.90	3.744	I O				5.19
32.250	0.00	0.90	3.738	I O				5.18
32.333	0.00	0.90	3.732	I O				5.18
32.417	0.00	0.89	3.726	I O				5.17
32.500	0.00	0.89	3.719	I O				5.16
32.583	0.00	0.89	3.713	I O				5.16
32.667	0.00	0.88	3.707	I O				5.15
32.750	0.00	0.88	3.701	I O				5.15
32.833	0.00	0.88	3.695	I O				5.14
32.917	0.00	0.87	3.689	I O				5.14
33.000	0.00	0.87	3.683	I O				5.13
33.083	0.00	0.87	3.677	I O				5.13
33.167	0.00	0.86	3.671	I O				5.12
33.250	0.00	0.86	3.665	I O				5.11
33.333	0.00	0.86	3.659	I O				5.11
33.417	0.00	0.85	3.653	I O				5.10
33.500	0.00	0.85	3.648	I O				5.10
33.583	0.00	0.85	3.642	I O				5.09
33.667	0.00	0.84	3.636	I O				5.09
33.750	0.00	0.84	3.630	I O				5.08
33.833	0.00	0.84	3.624	I O				5.08
33.917	0.00	0.83	3.619	I O				5.07
34.000	0.00	0.83	3.613	I O				5.07
34.083	0.00	0.83	3.607	I O				5.06
34.167	0.00	0.82	3.601	I O				5.06

34.250	0.00	0.82	3.596	I O				5.05
34.333	0.00	0.82	3.590	I O				5.05
34.417	0.00	0.81	3.585	I O				5.04
34.500	0.00	0.81	3.579	I O				5.04
34.583	0.00	0.81	3.573	I O				5.03
34.667	0.00	0.81	3.568	I O				5.03
34.750	0.00	0.80	3.562	I O				5.02
34.833	0.00	0.80	3.557	I O				5.02
34.917	0.00	0.80	3.551	I O				5.01
35.000	0.00	0.79	3.546	I O				5.01
35.083	0.00	0.79	3.540	I O				5.00
35.167	0.00	0.79	3.535	I O				5.00
35.250	0.00	0.79	3.529	I O				4.99
35.333	0.00	0.79	3.524	I O				4.98
35.417	0.00	0.79	3.519	I O				4.98
35.500	0.00	0.79	3.513	I O				4.97
35.583	0.00	0.79	3.508	I O				4.97
35.667	0.00	0.79	3.502	I O				4.96
35.750	0.00	0.79	3.497	I O				4.96
35.833	0.00	0.79	3.491	I O				4.95
35.917	0.00	0.79	3.486	I O				4.95
36.000	0.00	0.79	3.481	I O				4.94
36.083	0.00	0.79	3.475	I O				4.94
36.167	0.00	0.78	3.470	I O				4.93
36.250	0.00	0.78	3.464	I O				4.93
36.333	0.00	0.78	3.459	I O				4.92
36.417	0.00	0.78	3.454	I O				4.92
36.500	0.00	0.78	3.448	I O				4.91
36.583	0.00	0.78	3.443	I O				4.91
36.667	0.00	0.78	3.437	I O				4.90
36.750	0.00	0.78	3.432	I O				4.90
36.833	0.00	0.78	3.427	I O				4.89
36.917	0.00	0.78	3.421	I O				4.89
37.000	0.00	0.78	3.416	I O				4.88
37.083	0.00	0.78	3.411	I O				4.88
37.167	0.00	0.78	3.405	I O				4.87
37.250	0.00	0.78	3.400	I O				4.87
37.333	0.00	0.78	3.394	I O				4.86
37.417	0.00	0.78	3.389	I O				4.85
37.500	0.00	0.78	3.384	I O				4.85
37.583	0.00	0.78	3.378	I O				4.84
37.667	0.00	0.78	3.373	I O				4.84
37.750	0.00	0.78	3.368	I O				4.83
37.833	0.00	0.78	3.362	I O				4.83
37.917	0.00	0.78	3.357	I O				4.82
38.000	0.00	0.78	3.352	I O				4.82
38.083	0.00	0.78	3.346	I O				4.81
38.167	0.00	0.77	3.341	I O				4.81
38.250	0.00	0.77	3.336	I O				4.80
38.333	0.00	0.77	3.330	I O				4.80
38.417	0.00	0.77	3.325	I O				4.79
38.500	0.00	0.77	3.320	I O				4.79
38.583	0.00	0.77	3.314	I O				4.78
38.667	0.00	0.77	3.309	I O				4.78

38.750	0.00	0.77	3.304	I O				4.77
38.833	0.00	0.77	3.298	I O				4.77
38.917	0.00	0.77	3.293	I O				4.76
39.000	0.00	0.77	3.288	I O				4.76
39.083	0.00	0.77	3.282	I O				4.75
39.167	0.00	0.77	3.277	I O				4.75
39.250	0.00	0.77	3.272	I O				4.74
39.333	0.00	0.77	3.267	I O				4.74
39.417	0.00	0.77	3.261	I O				4.73
39.500	0.00	0.77	3.256	I O				4.73
39.583	0.00	0.77	3.251	I O				4.72
39.667	0.00	0.77	3.245	I O				4.72
39.750	0.00	0.77	3.240	I O				4.71
39.833	0.00	0.77	3.235	I O				4.71
39.917	0.00	0.77	3.230	I O				4.70
40.000	0.00	0.77	3.224	I O				4.70
40.083	0.00	0.77	3.219	I O				4.69
40.167	0.00	0.76	3.214	I O				4.69
40.250	0.00	0.76	3.208	I O				4.68
40.333	0.00	0.76	3.203	I O				4.68
40.417	0.00	0.76	3.198	I O				4.67
40.500	0.00	0.76	3.193	I O				4.67
40.583	0.00	0.76	3.187	I O				4.66
40.667	0.00	0.76	3.182	I O				4.66
40.750	0.00	0.76	3.177	I O				4.65
40.833	0.00	0.76	3.172	I O				4.65
40.917	0.00	0.76	3.166	I O				4.64
41.000	0.00	0.76	3.161	I O				4.64
41.083	0.00	0.76	3.156	I O				4.63
41.167	0.00	0.76	3.151	I O				4.63
41.250	0.00	0.76	3.145	I O				4.62
41.333	0.00	0.76	3.140	I O				4.62
41.417	0.00	0.76	3.135	I O				4.61
41.500	0.00	0.76	3.130	I O				4.61
41.583	0.00	0.76	3.125	I O				4.60
41.667	0.00	0.76	3.119	I O				4.60
41.750	0.00	0.76	3.114	I O				4.59
41.833	0.00	0.76	3.109	I O				4.59
41.917	0.00	0.76	3.104	I O				4.58
42.000	0.00	0.76	3.099	I O				4.58
42.083	0.00	0.76	3.093	I O				4.57
42.167	0.00	0.76	3.088	I O				4.57
42.250	0.00	0.75	3.083	I O				4.56
42.333	0.00	0.75	3.078	I O				4.56
42.417	0.00	0.75	3.073	I O				4.55
42.500	0.00	0.75	3.067	I O				4.55
42.583	0.00	0.75	3.062	I O				4.54
42.667	0.00	0.75	3.057	I O				4.54
42.750	0.00	0.75	3.052	I O				4.53
42.833	0.00	0.75	3.047	I O				4.53
42.917	0.00	0.75	3.041	I O				4.52
43.000	0.00	0.75	3.036	I O				4.52
43.083	0.00	0.75	3.031	I O				4.51
43.167	0.00	0.75	3.026	I O				4.51

43.250	0.00	0.75	3.021	I O				4.50
43.333	0.00	0.75	3.016	I O				4.50
43.417	0.00	0.75	3.010	I O				4.49
43.500	0.00	0.75	3.005	I O				4.49
43.583	0.00	0.75	3.000	I O				4.48
43.667	0.00	0.75	2.995	I O				4.48
43.750	0.00	0.75	2.990	I O				4.47
43.833	0.00	0.75	2.985	I O				4.47
43.917	0.00	0.75	2.979	I O				4.46
44.000	0.00	0.75	2.974	I O				4.46
44.083	0.00	0.75	2.969	I O				4.45
44.167	0.00	0.75	2.964	I O				4.45
44.250	0.00	0.75	2.959	I O				4.44
44.333	0.00	0.74	2.954	I O				4.44
44.417	0.00	0.74	2.949	I O				4.43
44.500	0.00	0.74	2.944	I O				4.43
44.583	0.00	0.74	2.938	I O				4.42
44.667	0.00	0.74	2.933	I O				4.42
44.750	0.00	0.74	2.928	I O				4.41
44.833	0.00	0.74	2.923	I O				4.41
44.917	0.00	0.74	2.918	I O				4.40
45.000	0.00	0.74	2.913	I O				4.40
45.083	0.00	0.74	2.908	I O				4.39
45.167	0.00	0.74	2.903	I O				4.39
45.250	0.00	0.74	2.898	I O				4.38
45.333	0.00	0.74	2.892	I O				4.38
45.417	0.00	0.74	2.887	I O				4.37
45.500	0.00	0.74	2.882	I O				4.37
45.583	0.00	0.74	2.877	I O				4.36
45.667	0.00	0.74	2.872	I O				4.36
45.750	0.00	0.74	2.867	I O				4.35
45.833	0.00	0.74	2.862	I O				4.35
45.917	0.00	0.74	2.857	I O				4.34
46.000	0.00	0.74	2.852	I O				4.34
46.083	0.00	0.74	2.847	I O				4.33
46.167	0.00	0.74	2.842	I O				4.33
46.250	0.00	0.74	2.837	I O				4.32
46.333	0.00	0.74	2.831	I O				4.32
46.417	0.00	0.74	2.826	I O				4.31
46.500	0.00	0.73	2.821	I O				4.31
46.583	0.00	0.73	2.816	I O				4.30
46.667	0.00	0.73	2.811	I O				4.30
46.750	0.00	0.73	2.806	I O				4.29
46.833	0.00	0.73	2.801	I O				4.29
46.917	0.00	0.73	2.796	I O				4.28
47.000	0.00	0.73	2.791	I O				4.28
47.083	0.00	0.73	2.786	I O				4.27
47.167	0.00	0.73	2.781	I O				4.27
47.250	0.00	0.73	2.776	I O				4.27
47.333	0.00	0.73	2.771	I O				4.26
47.417	0.00	0.73	2.766	I O				4.26
47.500	0.00	0.73	2.761	I O				4.25
47.583	0.00	0.73	2.756	I O				4.25
47.667	0.00	0.73	2.751	I O				4.24

47.750	0.00	0.73	2.746	I O				4.24
47.833	0.00	0.73	2.741	I O				4.23
47.917	0.00	0.73	2.736	I O				4.23
48.000	0.00	0.73	2.731	I O				4.22
48.083	0.00	0.73	2.726	I O				4.22
48.167	0.00	0.73	2.721	I O				4.21
48.250	0.00	0.73	2.716	I O				4.21
48.333	0.00	0.73	2.711	I O				4.20
48.417	0.00	0.73	2.706	I O				4.20
48.500	0.00	0.73	2.701	I O				4.19
48.583	0.00	0.73	2.696	I O				4.19
48.667	0.00	0.72	2.691	I O				4.18
48.750	0.00	0.72	2.686	I O				4.18
48.833	0.00	0.72	2.681	I O				4.17
48.917	0.00	0.72	2.676	I O				4.17
49.000	0.00	0.72	2.671	I O				4.16
49.083	0.00	0.72	2.666	I O				4.16
49.167	0.00	0.72	2.661	I O				4.15
49.250	0.00	0.72	2.656	I O				4.15
49.333	0.00	0.72	2.651	I O				4.15
49.417	0.00	0.72	2.646	I O				4.14
49.500	0.00	0.72	2.641	I O				4.14
49.583	0.00	0.72	2.636	I O				4.13
49.667	0.00	0.72	2.631	I O				4.13
49.750	0.00	0.72	2.626	I O				4.12
49.833	0.00	0.72	2.621	I O				4.12
49.917	0.00	0.72	2.616	I O				4.11
50.000	0.00	0.72	2.611	I O				4.11
50.083	0.00	0.72	2.606	I O				4.10
50.167	0.00	0.72	2.601	I O				4.10
50.250	0.00	0.72	2.596	I O				4.09
50.333	0.00	0.72	2.591	I O				4.09
50.417	0.00	0.72	2.586	I O				4.08
50.500	0.00	0.72	2.582	I O				4.08
50.583	0.00	0.72	2.577	I O				4.07
50.667	0.00	0.72	2.572	I O				4.07
50.750	0.00	0.72	2.567	I O				4.06
50.833	0.00	0.71	2.562	I O				4.06
50.917	0.00	0.71	2.557	I O				4.05
51.000	0.00	0.71	2.552	I O				4.05
51.083	0.00	0.71	2.547	I O				4.05
51.167	0.00	0.71	2.542	I O				4.04
51.250	0.00	0.71	2.537	I O				4.04
51.333	0.00	0.71	2.532	I O				4.03
51.417	0.00	0.71	2.527	I O				4.03
51.500	0.00	0.71	2.523	I O				4.02
51.583	0.00	0.71	2.518	I O				4.02
51.667	0.00	0.71	2.513	I O				4.01
51.750	0.00	0.71	2.508	I O				4.01
51.833	0.00	0.71	2.503	I O				4.00
51.917	0.00	0.71	2.498	I O				4.00
52.000	0.00	0.71	2.493	I O				3.99
52.083	0.00	0.71	2.488	I O				3.99
52.167	0.00	0.71	2.483	I O				3.98

52.250	0.00	0.71	2.479	I O				3.98
52.333	0.00	0.71	2.474	I O				3.97
52.417	0.00	0.71	2.469	I O				3.97
52.500	0.00	0.71	2.464	I O				3.96
52.583	0.00	0.71	2.459	I O				3.96
52.667	0.00	0.71	2.454	I O				3.95
52.750	0.00	0.70	2.449	I O				3.95
52.833	0.00	0.70	2.444	I O				3.94
52.917	0.00	0.70	2.440	I O				3.94
53.000	0.00	0.70	2.435	I O				3.93
53.083	0.00	0.70	2.430	I O				3.93
53.167	0.00	0.70	2.425	I O				3.92
53.250	0.00	0.70	2.420	I O				3.92
53.333	0.00	0.70	2.415	I O				3.91
53.417	0.00	0.70	2.411	I O				3.91
53.500	0.00	0.70	2.406	I O				3.90
53.583	0.00	0.70	2.401	I O				3.90
53.667	0.00	0.70	2.396	I O				3.89
53.750	0.00	0.70	2.391	I O				3.89
53.833	0.00	0.70	2.387	I O				3.88
53.917	0.00	0.70	2.382	I O				3.88
54.000	0.00	0.70	2.377	I O				3.87
54.083	0.00	0.70	2.372	I O				3.87
54.167	0.00	0.70	2.367	I O				3.86
54.250	0.00	0.70	2.363	I O				3.86
54.333	0.00	0.70	2.358	I O				3.85
54.417	0.00	0.69	2.353	I O				3.85
54.500	0.00	0.69	2.348	I O				3.84
54.583	0.00	0.69	2.343	I O				3.84
54.667	0.00	0.69	2.339	I O				3.83
54.750	0.00	0.69	2.334	I O				3.83
54.833	0.00	0.69	2.329	I O				3.82
54.917	0.00	0.69	2.324	I O				3.82
55.000	0.00	0.69	2.320	I O				3.81
55.083	0.00	0.69	2.315	I O				3.81
55.167	0.00	0.69	2.310	I O				3.80
55.250	0.00	0.69	2.305	I O				3.80
55.333	0.00	0.69	2.301	I O				3.79
55.417	0.00	0.69	2.296	I O				3.79
55.500	0.00	0.69	2.291	I O				3.78
55.583	0.00	0.69	2.286	I O				3.78
55.667	0.00	0.69	2.282	I O				3.77
55.750	0.00	0.69	2.277	I O				3.77
55.833	0.00	0.69	2.272	I O				3.76
55.917	0.00	0.69	2.267	I O				3.76
56.000	0.00	0.69	2.263	I O				3.75
56.083	0.00	0.68	2.258	I O				3.75
56.167	0.00	0.68	2.253	I O				3.74
56.250	0.00	0.68	2.249	I O				3.74
56.333	0.00	0.68	2.244	I O				3.73
56.417	0.00	0.68	2.239	I O				3.73
56.500	0.00	0.68	2.234	I O				3.72
56.583	0.00	0.68	2.230	I O				3.72
56.667	0.00	0.68	2.225	I O				3.71

56.750	0.00	0.68	2.220	I O				3.71
56.833	0.00	0.68	2.216	I O				3.70
56.917	0.00	0.68	2.211	I O				3.70
57.000	0.00	0.68	2.206	I O				3.69
57.083	0.00	0.68	2.202	I O				3.69
57.167	0.00	0.68	2.197	I O				3.68
57.250	0.00	0.68	2.192	I O				3.68
57.333	0.00	0.68	2.188	I O				3.67
57.417	0.00	0.68	2.183	I O				3.67
57.500	0.00	0.68	2.178	I O				3.66
57.583	0.00	0.68	2.174	I O				3.66
57.667	0.00	0.68	2.169	I O				3.65
57.750	0.00	0.67	2.164	I O				3.65
57.833	0.00	0.67	2.160	I O				3.64
57.917	0.00	0.67	2.155	I O				3.64
58.000	0.00	0.67	2.150	I O				3.63
58.083	0.00	0.67	2.146	I O				3.63
58.167	0.00	0.67	2.141	I O				3.62
58.250	0.00	0.67	2.137	I O				3.62
58.333	0.00	0.67	2.132	IO				3.61
58.417	0.00	0.67	2.127	IO				3.61
58.500	0.00	0.67	2.123	IO				3.60
58.583	0.00	0.67	2.118	IO				3.60
58.667	0.00	0.67	2.113	IO				3.59
58.750	0.00	0.67	2.109	IO				3.59
58.833	0.00	0.67	2.104	IO				3.58
58.917	0.00	0.67	2.100	IO				3.58
59.000	0.00	0.67	2.095	IO				3.57
59.083	0.00	0.67	2.090	IO				3.57
59.167	0.00	0.67	2.086	IO				3.56
59.250	0.00	0.67	2.081	IO				3.56
59.333	0.00	0.67	2.077	IO				3.55
59.417	0.00	0.66	2.072	IO				3.55
59.500	0.00	0.66	2.068	IO				3.54
59.583	0.00	0.66	2.063	IO				3.54
59.667	0.00	0.66	2.058	IO				3.54
59.750	0.00	0.66	2.054	IO				3.53
59.833	0.00	0.66	2.049	IO				3.53
59.917	0.00	0.66	2.045	IO				3.52
60.000	0.00	0.66	2.040	IO				3.52
60.083	0.00	0.66	2.036	IO				3.51
60.167	0.00	0.66	2.031	IO				3.51
60.250	0.00	0.66	2.026	IO				3.50
60.333	0.00	0.66	2.022	IO				3.50
60.417	0.00	0.66	2.017	IO				3.49
60.500	0.00	0.66	2.013	IO				3.49
60.583	0.00	0.66	2.008	IO				3.48
60.667	0.00	0.66	2.004	IO				3.48
60.750	0.00	0.66	1.999	IO				3.47
60.833	0.00	0.66	1.995	IO				3.47
60.917	0.00	0.66	1.990	IO				3.46
61.000	0.00	0.66	1.986	IO				3.46
61.083	0.00	0.66	1.981	IO				3.45
61.167	0.00	0.65	1.977	IO				3.45

61.250	0.00	0.65	1.972	IO				3.44
61.333	0.00	0.65	1.968	IO				3.44
61.417	0.00	0.65	1.963	IO				3.43
61.500	0.00	0.65	1.959	IO				3.43
61.583	0.00	0.65	1.954	IO				3.43
61.667	0.00	0.65	1.950	IO				3.42
61.750	0.00	0.65	1.945	IO				3.42
61.833	0.00	0.65	1.941	IO				3.41
61.917	0.00	0.65	1.936	IO				3.41
62.000	0.00	0.65	1.932	IO				3.40
62.083	0.00	0.65	1.927	IO				3.40
62.167	0.00	0.65	1.923	IO				3.39
62.250	0.00	0.65	1.918	IO				3.39
62.333	0.00	0.65	1.914	IO				3.38
62.417	0.00	0.65	1.909	IO				3.38
62.500	0.00	0.65	1.905	IO				3.37
62.583	0.00	0.65	1.900	IO				3.37
62.667	0.00	0.65	1.896	IO				3.36
62.750	0.00	0.65	1.892	IO				3.36
62.833	0.00	0.65	1.887	IO				3.35
62.917	0.00	0.65	1.883	IO				3.35
63.000	0.00	0.64	1.878	IO				3.35
63.083	0.00	0.64	1.874	IO				3.34
63.167	0.00	0.64	1.869	IO				3.34
63.250	0.00	0.64	1.865	IO				3.33
63.333	0.00	0.64	1.861	IO				3.33
63.417	0.00	0.64	1.856	IO				3.32
63.500	0.00	0.64	1.852	IO				3.32
63.583	0.00	0.64	1.847	IO				3.31
63.667	0.00	0.64	1.843	IO				3.31
63.750	0.00	0.64	1.838	IO				3.30
63.833	0.00	0.64	1.834	IO				3.30
63.917	0.00	0.64	1.830	IO				3.29
64.000	0.00	0.64	1.825	IO				3.29
64.083	0.00	0.64	1.821	IO				3.29
64.167	0.00	0.64	1.816	IO				3.28
64.250	0.00	0.64	1.812	IO				3.28
64.333	0.00	0.64	1.808	IO				3.27
64.417	0.00	0.64	1.803	IO				3.27
64.500	0.00	0.64	1.799	IO				3.26
64.583	0.00	0.64	1.794	IO				3.26
64.667	0.00	0.64	1.790	IO				3.25
64.750	0.00	0.63	1.786	IO				3.25
64.833	0.00	0.63	1.781	IO				3.24
64.917	0.00	0.63	1.777	IO				3.24
65.000	0.00	0.63	1.773	IO				3.23
65.083	0.00	0.63	1.768	IO				3.23
65.167	0.00	0.63	1.764	IO				3.23
65.250	0.00	0.63	1.760	IO				3.22
65.333	0.00	0.63	1.755	IO				3.22
65.417	0.00	0.63	1.751	IO				3.21
65.500	0.00	0.63	1.747	IO				3.21
65.583	0.00	0.63	1.742	IO				3.20
65.667	0.00	0.63	1.738	IO				3.20

65.750	0.00	0.63	1.733	IO				3.19
65.833	0.00	0.63	1.729	IO				3.19
65.917	0.00	0.63	1.725	IO				3.18
66.000	0.00	0.63	1.720	IO				3.18
66.083	0.00	0.63	1.716	IO				3.17
66.167	0.00	0.63	1.712	IO				3.17
66.250	0.00	0.63	1.708	IO				3.17
66.333	0.00	0.63	1.703	IO				3.16
66.417	0.00	0.63	1.699	IO				3.16
66.500	0.00	0.63	1.695	IO				3.15
66.583	0.00	0.62	1.690	IO				3.15
66.667	0.00	0.62	1.686	IO				3.14
66.750	0.00	0.62	1.682	IO				3.14
66.833	0.00	0.62	1.677	IO				3.13
66.917	0.00	0.62	1.673	IO				3.13
67.000	0.00	0.62	1.669	IO				3.13
67.083	0.00	0.62	1.665	IO				3.12
67.167	0.00	0.62	1.660	IO				3.12
67.250	0.00	0.62	1.656	IO				3.11
67.333	0.00	0.62	1.652	IO				3.11
67.417	0.00	0.62	1.647	IO				3.10
67.500	0.00	0.62	1.643	IO				3.10
67.583	0.00	0.62	1.639	IO				3.09
67.667	0.00	0.62	1.635	IO				3.09
67.750	0.00	0.62	1.630	IO				3.08
67.833	0.00	0.62	1.626	IO				3.08
67.917	0.00	0.62	1.622	IO				3.08
68.000	0.00	0.62	1.618	IO				3.07
68.083	0.00	0.62	1.613	IO				3.07
68.167	0.00	0.62	1.609	IO				3.06
68.250	0.00	0.62	1.605	IO				3.06
68.333	0.00	0.62	1.601	IO				3.05
68.417	0.00	0.61	1.596	IO				3.05
68.500	0.00	0.61	1.592	IO				3.04
68.583	0.00	0.61	1.588	IO				3.04
68.667	0.00	0.61	1.584	IO				3.04
68.750	0.00	0.61	1.579	IO				3.03
68.833	0.00	0.61	1.575	IO				3.03
68.917	0.00	0.61	1.571	IO				3.02
69.000	0.00	0.61	1.567	IO				3.02
69.083	0.00	0.61	1.563	IO				3.01
69.167	0.00	0.61	1.558	IO				3.01
69.250	0.00	0.61	1.554	IO				3.00
69.333	0.00	0.61	1.550	IO				3.00
69.417	0.00	0.61	1.546	IO				2.99
69.500	0.00	0.61	1.542	IO				2.99
69.583	0.00	0.61	1.537	IO				2.98
69.667	0.00	0.61	1.533	IO				2.98
69.750	0.00	0.61	1.529	IO				2.97
69.833	0.00	0.61	1.525	IO				2.97
69.917	0.00	0.61	1.521	IO				2.96
70.000	0.00	0.61	1.517	IO				2.96
70.083	0.00	0.60	1.512	IO				2.95
70.167	0.00	0.60	1.508	IO				2.95

70.250	0.00	0.60	1.504	IO				2.94
70.333	0.00	0.60	1.500	IO				2.94
70.417	0.00	0.60	1.496	IO				2.93
70.500	0.00	0.60	1.492	IO				2.93
70.583	0.00	0.60	1.487	IO				2.92
70.667	0.00	0.60	1.483	IO				2.92
70.750	0.00	0.60	1.479	IO				2.91
70.833	0.00	0.60	1.475	IO				2.91
70.917	0.00	0.60	1.471	IO				2.90
71.000	0.00	0.60	1.467	IO				2.90
71.083	0.00	0.60	1.463	IO				2.89
71.167	0.00	0.60	1.459	IO				2.89
71.250	0.00	0.60	1.454	IO				2.88
71.333	0.00	0.60	1.450	IO				2.88
71.417	0.00	0.60	1.446	IO				2.87
71.500	0.00	0.60	1.442	IO				2.87
71.583	0.00	0.59	1.438	IO				2.86
71.667	0.00	0.59	1.434	IO				2.86
71.750	0.00	0.59	1.430	IO				2.85
71.833	0.00	0.59	1.426	IO				2.85
71.917	0.00	0.59	1.422	IO				2.84
72.000	0.00	0.59	1.418	IO				2.84
72.083	0.00	0.59	1.413	IO				2.83
72.167	0.00	0.59	1.409	IO				2.83
72.250	0.00	0.59	1.405	IO				2.82
72.333	0.00	0.59	1.401	IO				2.82
72.417	0.00	0.59	1.397	IO				2.81
72.500	0.00	0.59	1.393	IO				2.81
72.583	0.00	0.59	1.389	IO				2.80
72.667	0.00	0.59	1.385	IO				2.80
72.750	0.00	0.59	1.381	IO				2.79
72.833	0.00	0.59	1.377	IO				2.79
72.917	0.00	0.59	1.373	IO				2.78
73.000	0.00	0.59	1.369	IO				2.78
73.083	0.00	0.58	1.365	IO				2.77
73.167	0.00	0.58	1.361	IO				2.77
73.250	0.00	0.58	1.357	IO				2.76
73.333	0.00	0.58	1.353	IO				2.76
73.417	0.00	0.58	1.349	IO				2.75
73.500	0.00	0.58	1.345	IO				2.75
73.583	0.00	0.58	1.341	IO				2.74
73.667	0.00	0.58	1.337	IO				2.74
73.750	0.00	0.58	1.333	IO				2.73
73.833	0.00	0.58	1.329	IO				2.73
73.917	0.00	0.58	1.325	IO				2.72
74.000	0.00	0.58	1.321	IO				2.72
74.083	0.00	0.58	1.317	IO				2.71
74.167	0.00	0.58	1.313	IO				2.71
74.250	0.00	0.58	1.309	IO				2.70
74.333	0.00	0.58	1.305	IO				2.70
74.417	0.00	0.58	1.301	IO				2.69
74.500	0.00	0.58	1.297	IO				2.69
74.583	0.00	0.58	1.293	IO				2.68
74.667	0.00	0.57	1.289	IO				2.68

74.750	0.00	0.57	1.285	IO				2.67
74.833	0.00	0.57	1.281	IO				2.67
74.917	0.00	0.57	1.277	IO				2.66
75.000	0.00	0.57	1.273	IO				2.66
75.083	0.00	0.57	1.269	IO				2.65
75.167	0.00	0.57	1.265	IO				2.65
75.250	0.00	0.57	1.261	IO				2.64
75.333	0.00	0.57	1.257	IO				2.64
75.417	0.00	0.57	1.254	IO				2.63
75.500	0.00	0.57	1.250	IO				2.63
75.583	0.00	0.57	1.246	IO				2.62
75.667	0.00	0.57	1.242	IO				2.62
75.750	0.00	0.57	1.238	IO				2.61
75.833	0.00	0.57	1.234	IO				2.61
75.917	0.00	0.57	1.230	IO				2.61
76.000	0.00	0.57	1.226	IO				2.60
76.083	0.00	0.57	1.222	IO				2.60
76.167	0.00	0.56	1.218	IO				2.59
76.250	0.00	0.56	1.214	IO				2.59
76.333	0.00	0.56	1.211	IO				2.58
76.417	0.00	0.56	1.207	IO				2.58
76.500	0.00	0.56	1.203	IO				2.57
76.583	0.00	0.56	1.199	IO				2.57
76.667	0.00	0.56	1.195	IO				2.56
76.750	0.00	0.56	1.191	IO				2.56
76.833	0.00	0.56	1.187	IO				2.55
76.917	0.00	0.56	1.184	IO				2.55
77.000	0.00	0.56	1.180	IO				2.54
77.083	0.00	0.56	1.176	IO				2.54
77.167	0.00	0.56	1.172	IO				2.53
77.250	0.00	0.56	1.168	IO				2.53
77.333	0.00	0.56	1.164	IO				2.52
77.417	0.00	0.56	1.160	IO				2.52
77.500	0.00	0.56	1.157	IO				2.51
77.583	0.00	0.56	1.153	IO				2.51
77.667	0.00	0.56	1.149	IO				2.50
77.750	0.00	0.56	1.145	IO				2.50
77.833	0.00	0.55	1.141	IO				2.50
77.917	0.00	0.55	1.137	IO				2.49
78.000	0.00	0.55	1.134	IO				2.49
78.083	0.00	0.55	1.130	IO				2.48
78.167	0.00	0.55	1.126	IO				2.48
78.250	0.00	0.55	1.122	IO				2.47
78.333	0.00	0.55	1.118	IO				2.47
78.417	0.00	0.55	1.115	IO				2.46
78.500	0.00	0.55	1.111	IO				2.46
78.583	0.00	0.55	1.107	IO				2.45
78.667	0.00	0.55	1.103	IO				2.45
78.750	0.00	0.55	1.099	IO				2.44
78.833	0.00	0.55	1.096	IO				2.44
78.917	0.00	0.55	1.092	IO				2.43
79.000	0.00	0.55	1.088	IO				2.43
79.083	0.00	0.55	1.084	IO				2.43
79.167	0.00	0.55	1.081	IO				2.42

79.250	0.00	0.55	1.077	IO				2.42
79.333	0.00	0.55	1.073	IO				2.41
79.417	0.00	0.54	1.069	IO				2.41
79.500	0.00	0.54	1.066	IO				2.40
79.583	0.00	0.54	1.062	IO				2.40
79.667	0.00	0.54	1.058	IO				2.39
79.750	0.00	0.54	1.054	IO				2.39
79.833	0.00	0.54	1.051	IO				2.38
79.917	0.00	0.54	1.047	IO				2.38
80.000	0.00	0.54	1.043	IO				2.37
80.083	0.00	0.54	1.039	IO				2.37
80.167	0.00	0.54	1.036	IO				2.37
80.250	0.00	0.54	1.032	IO				2.36
80.333	0.00	0.54	1.028	IO				2.36
80.417	0.00	0.54	1.025	IO				2.35
80.500	0.00	0.54	1.021	IO				2.35
80.583	0.00	0.54	1.017	IO				2.34
80.667	0.00	0.54	1.013	IO				2.34
80.750	0.00	0.54	1.010	IO				2.33
80.833	0.00	0.54	1.006	IO				2.33
80.917	0.00	0.54	1.002	IO				2.32
81.000	0.00	0.54	0.999	IO				2.32
81.083	0.00	0.53	0.995	IO				2.31
81.167	0.00	0.53	0.991	IO				2.31
81.250	0.00	0.53	0.988	IO				2.31
81.333	0.00	0.53	0.984	IO				2.30
81.417	0.00	0.53	0.980	IO				2.30
81.500	0.00	0.53	0.977	IO				2.29
81.583	0.00	0.53	0.973	IO				2.29
81.667	0.00	0.53	0.969	IO				2.28
81.750	0.00	0.53	0.966	IO				2.28
81.833	0.00	0.53	0.962	IO				2.27
81.917	0.00	0.53	0.958	IO				2.27
82.000	0.00	0.53	0.955	IO				2.27
82.083	0.00	0.53	0.951	IO				2.26
82.167	0.00	0.53	0.947	IO				2.26
82.250	0.00	0.53	0.944	IO				2.25
82.333	0.00	0.53	0.940	IO				2.25
82.417	0.00	0.53	0.937	IO				2.24
82.500	0.00	0.53	0.933	IO				2.24
82.583	0.00	0.53	0.929	IO				2.23
82.667	0.00	0.53	0.926	IO				2.23
82.750	0.00	0.52	0.922	IO				2.22
82.833	0.00	0.52	0.918	IO				2.22
82.917	0.00	0.52	0.915	IO				2.22
83.000	0.00	0.52	0.911	IO				2.21
83.083	0.00	0.52	0.908	IO				2.21
83.167	0.00	0.52	0.904	IO				2.20
83.250	0.00	0.52	0.900	IO				2.20
83.333	0.00	0.52	0.897	IO				2.19
83.417	0.00	0.52	0.893	IO				2.19
83.500	0.00	0.52	0.890	IO				2.18
83.583	0.00	0.52	0.886	IO				2.18
83.667	0.00	0.52	0.883	IO				2.18

83.750	0.00	0.52	0.879	IO				2.17
83.833	0.00	0.52	0.875	IO				2.17
83.917	0.00	0.52	0.872	IO				2.16
84.000	0.00	0.52	0.868	IO				2.16
84.083	0.00	0.52	0.865	IO				2.15
84.167	0.00	0.52	0.861	IO				2.15
84.250	0.00	0.52	0.858	IO				2.15
84.333	0.00	0.52	0.854	IO				2.14
84.417	0.00	0.52	0.850	IO				2.14
84.500	0.00	0.51	0.847	IO				2.13
84.583	0.00	0.51	0.843	IO				2.13
84.667	0.00	0.51	0.840	IO				2.12
84.750	0.00	0.51	0.836	IO				2.12
84.833	0.00	0.51	0.833	IO				2.11
84.917	0.00	0.51	0.829	IO				2.11
85.000	0.00	0.51	0.826	IO				2.11
85.083	0.00	0.51	0.822	IO				2.10
85.167	0.00	0.51	0.819	IO				2.10
85.250	0.00	0.51	0.815	IO				2.09
85.333	0.00	0.51	0.812	IO				2.09
85.417	0.00	0.51	0.808	IO				2.08
85.500	0.00	0.51	0.805	IO				2.08
85.583	0.00	0.51	0.801	IO				2.08
85.667	0.00	0.51	0.798	IO				2.07
85.750	0.00	0.51	0.794	IO				2.07
85.833	0.00	0.51	0.791	IO				2.06
85.917	0.00	0.51	0.787	IO				2.06
86.000	0.00	0.51	0.784	IO				2.05
86.083	0.00	0.51	0.780	IO				2.05
86.167	0.00	0.50	0.777	IO				2.05
86.250	0.00	0.50	0.773	IO				2.04
86.333	0.00	0.50	0.770	IO				2.04
86.417	0.00	0.50	0.766	IO				2.03
86.500	0.00	0.50	0.763	IO				2.03
86.583	0.00	0.50	0.759	IO				2.02
86.667	0.00	0.50	0.756	IO				2.02
86.750	0.00	0.50	0.752	IO				2.02
86.833	0.00	0.50	0.749	IO				2.01
86.917	0.00	0.50	0.746	IO				2.01
87.000	0.00	0.50	0.742	IO				2.00
87.083	0.00	0.50	0.739	IO				2.00
87.167	0.00	0.50	0.735	IO				1.99
87.250	0.00	0.50	0.732	IO				1.98
87.333	0.00	0.50	0.728	IO				1.98
87.417	0.00	0.50	0.725	IO				1.97
87.500	0.00	0.49	0.722	IO				1.97
87.583	0.00	0.49	0.718	IO				1.96
87.667	0.00	0.49	0.715	IO				1.95
87.750	0.00	0.49	0.711	IO				1.95
87.833	0.00	0.49	0.708	IO				1.94
87.917	0.00	0.49	0.705	IO				1.93
88.000	0.00	0.49	0.701	IO				1.93
88.083	0.00	0.49	0.698	IO				1.92
88.167	0.00	0.49	0.695	IO				1.92

88.250	0.00	0.49	0.691	IO				1.91
88.333	0.00	0.48	0.688	IO				1.90
88.417	0.00	0.48	0.684	IO				1.90
88.500	0.00	0.48	0.681	IO				1.89
88.583	0.00	0.48	0.678	IO				1.88
88.667	0.00	0.48	0.675	IO				1.88
88.750	0.00	0.48	0.671	IO				1.87
88.833	0.00	0.48	0.668	IO				1.87
88.917	0.00	0.48	0.665	IO				1.86
89.000	0.00	0.48	0.661	IO				1.85
89.083	0.00	0.48	0.658	IO				1.85
89.167	0.00	0.47	0.655	IO				1.84
89.250	0.00	0.47	0.652	IO				1.84
89.333	0.00	0.47	0.648	IO				1.83
89.417	0.00	0.47	0.645	IO				1.82
89.500	0.00	0.47	0.642	IO				1.82
89.583	0.00	0.47	0.639	IO				1.81
89.667	0.00	0.47	0.635	IO				1.81
89.750	0.00	0.47	0.632	IO				1.80
89.833	0.00	0.47	0.629	IO				1.79
89.917	0.00	0.47	0.626	IO				1.79
90.000	0.00	0.47	0.622	IO				1.78
90.083	0.00	0.46	0.619	IO				1.78
90.167	0.00	0.46	0.616	IO				1.77
90.250	0.00	0.46	0.613	IO				1.76
90.333	0.00	0.46	0.610	IO				1.76
90.417	0.00	0.46	0.606	IO				1.75
90.500	0.00	0.46	0.603	IO				1.75
90.583	0.00	0.46	0.600	IO				1.74
90.667	0.00	0.46	0.597	IO				1.74
90.750	0.00	0.46	0.594	IO				1.73
90.833	0.00	0.46	0.591	IO				1.72
90.917	0.00	0.45	0.588	IO				1.72
91.000	0.00	0.45	0.584	IO				1.71
91.083	0.00	0.45	0.581	IO				1.71
91.167	0.00	0.45	0.578	IO				1.70
91.250	0.00	0.45	0.575	IO				1.69
91.333	0.00	0.45	0.572	IO				1.69
91.417	0.00	0.45	0.569	IO				1.68
91.500	0.00	0.45	0.566	IO				1.68
91.583	0.00	0.45	0.563	IO				1.67
91.667	0.00	0.45	0.560	IO				1.67
91.750	0.00	0.45	0.557	IO				1.66
91.833	0.00	0.44	0.554	IO				1.65
91.917	0.00	0.44	0.550	IO				1.65
92.000	0.00	0.44	0.547	IO				1.64
92.083	0.00	0.44	0.544	IO				1.64
92.167	0.00	0.44	0.541	IO				1.63
92.250	0.00	0.44	0.538	IO				1.63
92.333	0.00	0.44	0.535	IO				1.62
92.417	0.00	0.44	0.532	IO				1.62
92.500	0.00	0.44	0.529	IO				1.61
92.583	0.00	0.44	0.526	IO				1.60
92.667	0.00	0.44	0.523	IO				1.60

92.750	0.00	0.43	0.520	IO				1.59
92.833	0.00	0.43	0.517	IO				1.59
92.917	0.00	0.43	0.514	IO				1.58
93.000	0.00	0.43	0.511	IO				1.58
93.083	0.00	0.43	0.508	IO				1.57
93.167	0.00	0.43	0.505	IO				1.57
93.250	0.00	0.43	0.502	IO				1.56
93.333	0.00	0.43	0.499	IO				1.55
93.417	0.00	0.43	0.496	IO				1.55
93.500	0.00	0.43	0.493	IO				1.54
93.583	0.00	0.43	0.491	IO				1.54
93.667	0.00	0.43	0.488	IO				1.53
93.750	0.00	0.42	0.485	IO				1.53
93.833	0.00	0.42	0.482	IO				1.52
93.917	0.00	0.42	0.479	IO				1.52
94.000	0.00	0.42	0.476	IO				1.51
94.083	0.00	0.42	0.473	IO				1.51
94.167	0.00	0.42	0.470	IO				1.50
94.250	0.00	0.42	0.467	IO				1.49
94.333	0.00	0.42	0.464	IO				1.49
94.417	0.00	0.42	0.461	IO				1.48
94.500	0.00	0.42	0.459	IO				1.48
94.583	0.00	0.42	0.456	IO				1.47
94.667	0.00	0.41	0.453	IO				1.47
94.750	0.00	0.41	0.450	IO				1.46
94.833	0.00	0.41	0.447	IO				1.46
94.917	0.00	0.41	0.444	IO				1.45
95.000	0.00	0.41	0.442	IO				1.45
95.083	0.00	0.41	0.439	IO				1.44
95.167	0.00	0.41	0.436	IO				1.44
95.250	0.00	0.41	0.433	IO				1.43
95.333	0.00	0.41	0.430	IO				1.43
95.417	0.00	0.41	0.427	IO				1.42
95.500	0.00	0.41	0.425	IO				1.42
95.583	0.00	0.41	0.422	IO				1.41
95.667	0.00	0.40	0.419	IO				1.41
95.750	0.00	0.40	0.416	IO				1.40
95.833	0.00	0.40	0.413	IO				1.40
95.917	0.00	0.40	0.411	IO				1.39
96.000	0.00	0.40	0.408	IO				1.39
96.083	0.00	0.40	0.405	IO				1.38
96.167	0.00	0.40	0.402	IO				1.37
96.250	0.00	0.40	0.400	IO				1.37
96.333	0.00	0.40	0.397	IO				1.36
96.417	0.00	0.40	0.394	IO				1.36
96.500	0.00	0.40	0.391	IO				1.35
96.583	0.00	0.40	0.389	IO				1.35
96.667	0.00	0.40	0.386	IO				1.34
96.750	0.00	0.39	0.383	IO				1.34
96.833	0.00	0.39	0.381	IO				1.33
96.917	0.00	0.39	0.378	IO				1.33
97.000	0.00	0.39	0.375	IO				1.32
97.083	0.00	0.39	0.372	IO				1.32
97.167	0.00	0.39	0.370	IO				1.31

97.250	0.00	0.39	0.367	IO					1.31
97.333	0.00	0.39	0.364	IO					1.30
97.417	0.00	0.39	0.362	IO					1.30
97.500	0.00	0.39	0.359	IO					1.29
97.583	0.00	0.39	0.356	IO					1.29
97.667	0.00	0.39	0.354	IO					1.28
97.750	0.00	0.38	0.351	IO					1.28
97.833	0.00	0.38	0.348	IO					1.27
97.917	0.00	0.38	0.346	IO					1.27
98.000	0.00	0.38	0.343	IO					1.27
98.083	0.00	0.38	0.341	IO					1.26
98.167	0.00	0.38	0.338	IO					1.26
98.250	0.00	0.38	0.335	IO					1.25
98.333	0.00	0.38	0.333	IO					1.25
98.417	0.00	0.38	0.330	IO					1.24
98.500	0.00	0.38	0.327	IO					1.24
98.583	0.00	0.38	0.325	IO					1.23
98.667	0.00	0.38	0.322	IO					1.23
98.750	0.00	0.38	0.320	IO					1.22
98.833	0.00	0.37	0.317	IO					1.22
98.917	0.00	0.37	0.314	IO					1.21
99.000	0.00	0.37	0.312	IO					1.21
99.083	0.00	0.37	0.309	IO					1.20
99.167	0.00	0.37	0.307	IO					1.20
99.250	0.00	0.37	0.304	IO					1.19
99.333	0.00	0.37	0.302	IO					1.19
99.417	0.00	0.37	0.299	IO					1.18
99.500	0.00	0.37	0.297	IO					1.18
99.583	0.00	0.37	0.294	IO					1.17
99.667	0.00	0.37	0.292	IO					1.17
99.750	0.00	0.37	0.289	IO					1.16
99.833	0.00	0.37	0.286	IO					1.16
99.917	0.00	0.36	0.284	IO					1.16
100.000	0.00	0.36	0.281	IO					1.15
100.083	0.00	0.36	0.279	IO					1.15
100.167	0.00	0.36	0.276	IO					1.14
100.250	0.00	0.36	0.274	IO					1.14
100.333	0.00	0.36	0.271	IO					1.13
100.417	0.00	0.36	0.269	IO					1.13
100.500	0.00	0.36	0.266	IO					1.12
100.583	0.00	0.36	0.264	IO					1.12
100.667	0.00	0.36	0.262	IO					1.11
100.750	0.00	0.36	0.259	IO					1.11
100.833	0.00	0.36	0.257	IO					1.10
100.917	0.00	0.36	0.254	IO					1.10
101.000	0.00	0.36	0.252	IO					1.10
101.083	0.00	0.35	0.249	IO					1.09
101.167	0.00	0.35	0.247	IO					1.09
101.250	0.00	0.35	0.244	IO					1.08
101.333	0.00	0.35	0.242	IO					1.08
101.417	0.00	0.35	0.240	IO					1.07
101.500	0.00	0.35	0.237	IO					1.07
101.583	0.00	0.35	0.235	IO					1.06
101.667	0.00	0.35	0.232	IO					1.06

101.750	0.00	0.35	0.230	IO				1.06
101.833	0.00	0.35	0.227	IO				1.05
101.917	0.00	0.35	0.225	IO				1.05
102.000	0.00	0.35	0.223	IO				1.04
102.083	0.00	0.35	0.220	IO				1.04
102.167	0.00	0.35	0.218	IO				1.03
102.250	0.00	0.34	0.216	IO				1.03
102.333	0.00	0.34	0.213	IO				1.02
102.417	0.00	0.34	0.211	IO				1.02
102.500	0.00	0.34	0.208	IO				1.02
102.583	0.00	0.34	0.206	IO				1.01
102.667	0.00	0.34	0.204	IO				1.01
102.750	0.00	0.34	0.201	IO				1.00
102.833	0.00	0.34	0.199	IO				1.00
102.917	0.00	0.34	0.197	IO				0.99
103.000	0.00	0.33	0.194	O				0.98
103.083	0.00	0.33	0.192	O				0.97
103.167	0.00	0.33	0.190	O				0.96
103.250	0.00	0.33	0.188	O				0.95
103.333	0.00	0.33	0.185	O				0.94
103.417	0.00	0.32	0.183	O				0.93
103.500	0.00	0.32	0.181	O				0.92
103.583	0.00	0.32	0.179	O				0.91
103.667	0.00	0.32	0.177	O				0.90
103.750	0.00	0.31	0.174	O				0.89
103.833	0.00	0.31	0.172	O				0.88
103.917	0.00	0.31	0.170	O				0.87
104.000	0.00	0.31	0.168	O				0.87
104.083	0.00	0.31	0.166	O				0.86
104.167	0.00	0.30	0.164	O				0.85
104.250	0.00	0.30	0.162	O				0.84
104.333	0.00	0.30	0.160	O				0.83
104.417	0.00	0.30	0.157	O				0.82
104.500	0.00	0.30	0.155	O				0.81
104.583	0.00	0.29	0.153	O				0.80
104.667	0.00	0.29	0.151	O				0.80
104.750	0.00	0.29	0.149	O				0.79
104.833	0.00	0.29	0.147	O				0.78
104.917	0.00	0.29	0.145	O				0.77
105.000	0.00	0.28	0.143	O				0.76
105.083	0.00	0.28	0.142	O				0.76
105.167	0.00	0.28	0.140	O				0.75
105.250	0.00	0.28	0.138	O				0.74
105.333	0.00	0.28	0.136	O				0.73
105.417	0.00	0.27	0.134	O				0.72
105.500	0.00	0.27	0.132	O				0.72
105.583	0.00	0.27	0.130	O				0.71
105.667	0.00	0.27	0.128	O				0.70
105.750	0.00	0.27	0.126	O				0.69
105.833	0.00	0.26	0.125	O				0.68
105.917	0.00	0.26	0.123	O				0.68
106.000	0.00	0.26	0.121	O				0.67
106.083	0.00	0.26	0.119	O				0.66
106.167	0.00	0.26	0.117	O				0.65

106.250	0.00	0.26	0.116	O				0.65
106.333	0.00	0.25	0.114	O				0.64
106.417	0.00	0.25	0.112	O				0.63
106.500	0.00	0.25	0.110	O				0.62
106.583	0.00	0.25	0.109	O				0.62
106.667	0.00	0.25	0.107	O				0.61
106.750	0.00	0.25	0.105	O				0.60
106.833	0.00	0.24	0.104	O				0.60
106.917	0.00	0.24	0.102	O				0.59
107.000	0.00	0.24	0.100	O				0.58
107.083	0.00	0.24	0.099	O				0.58
107.167	0.00	0.24	0.097	O				0.57
107.250	0.00	0.24	0.095	O				0.56
107.333	0.00	0.23	0.094	O				0.56
107.417	0.00	0.23	0.092	O				0.55
107.500	0.00	0.23	0.091	O				0.54
107.583	0.00	0.23	0.089	O				0.54
107.667	0.00	0.23	0.087	O				0.53
107.750	0.00	0.23	0.086	O				0.52
107.833	0.00	0.22	0.084	O				0.52
107.917	0.00	0.22	0.083	O				0.51
108.000	0.00	0.22	0.081	O				0.50
108.083	0.00	0.22	0.080	O				0.50
108.167	0.00	0.22	0.078	O				0.49
108.250	0.00	0.22	0.077	O				0.48
108.333	0.00	0.22	0.075	O				0.48
108.417	0.00	0.21	0.074	O				0.47
108.500	0.00	0.21	0.072	O				0.47
108.583	0.00	0.21	0.071	O				0.46
108.667	0.00	0.21	0.069	O				0.45
108.750	0.00	0.21	0.068	O				0.45
108.833	0.00	0.21	0.067	O				0.44
108.917	0.00	0.21	0.065	O				0.44
109.000	0.00	0.20	0.064	O				0.43
109.083	0.00	0.20	0.062	O				0.42
109.167	0.00	0.20	0.061	O				0.42
109.250	0.00	0.20	0.060	O				0.41
109.333	0.00	0.20	0.058	O				0.41
109.417	0.00	0.20	0.057	O				0.40
109.500	0.00	0.20	0.055	O				0.39
109.583	0.00	0.19	0.054	O				0.39
109.667	0.00	0.19	0.053	O				0.38
109.750	0.00	0.19	0.051	O				0.38
109.833	0.00	0.19	0.050	O				0.37
109.917	0.00	0.19	0.049	O				0.37
110.000	0.00	0.19	0.048	O				0.36
110.083	0.00	0.19	0.046	O				0.36
110.167	0.00	0.18	0.045	O				0.35
110.250	0.00	0.18	0.044	O				0.35
110.333	0.00	0.18	0.042	O				0.34
110.417	0.00	0.18	0.041	O				0.33
110.500	0.00	0.18	0.040	O				0.33
110.583	0.00	0.17	0.039	O				0.32
110.667	0.00	0.17	0.038	O				0.31

110.750	0.00	0.16	0.036	O	|	|	|	0.30
110.833	0.00	0.16	0.035	O	|	|	|	0.29
110.917	0.00	0.15	0.034	O	|	|	|	0.28
111.000	0.00	0.15	0.033	O	|	|	|	0.27
111.083	0.00	0.14	0.032	O	|	|	|	0.27
111.167	0.00	0.14	0.031	O	|	|	|	0.26
111.250	0.00	0.14	0.030	O	|	|	|	0.25
111.333	0.00	0.13	0.029	O	|	|	|	0.24
111.417	0.00	0.13	0.028	O	|	|	|	0.23
111.500	0.00	0.12	0.028	O	|	|	|	0.23
111.583	0.00	0.12	0.027	O	|	|	|	0.22
111.667	0.00	0.12	0.026	O	|	|	|	0.21
111.750	0.00	0.11	0.025	O	|	|	|	0.21
111.833	0.00	0.11	0.024	O	|	|	|	0.20
111.917	0.00	0.11	0.024	O	|	|	|	0.19
112.000	0.00	0.10	0.023	O	|	|	|	0.19
112.083	0.00	0.10	0.022	O	|	|	|	0.18
112.167	0.00	0.10	0.021	O	|	|	|	0.18
112.250	0.00	0.09	0.021	O	|	|	|	0.17
112.333	0.00	0.09	0.020	O	|	|	|	0.17
112.417	0.00	0.09	0.020	O	|	|	|	0.16
112.500	0.00	0.09	0.019	O	|	|	|	0.16
112.583	0.00	0.08	0.018	O	|	|	|	0.15
112.667	0.00	0.08	0.018	O	|	|	|	0.15
112.750	0.00	0.08	0.017	O	|	|	|	0.14
112.833	0.00	0.08	0.017	O	|	|	|	0.14
112.917	0.00	0.07	0.016	O	|	|	|	0.13
113.000	0.00	0.07	0.016	O	|	|	|	0.13
113.083	0.00	0.07	0.015	O	|	|	|	0.13
113.167	0.00	0.07	0.015	O	|	|	|	0.12
113.250	0.00	0.06	0.014	O	|	|	|	0.12
113.333	0.00	0.06	0.014	O	|	|	|	0.11
113.417	0.00	0.06	0.013	O	|	|	|	0.11
113.500	0.00	0.06	0.013	O	|	|	|	0.11
113.583	0.00	0.06	0.013	O	|	|	|	0.10
113.667	0.00	0.06	0.012	O	|	|	|	0.10
113.750	0.00	0.05	0.012	O	|	|	|	0.10
113.833	0.00	0.05	0.012	O	|	|	|	0.10
113.917	0.00	0.05	0.011	O	|	|	|	0.09
114.000	0.00	0.05	0.011	O	|	|	|	0.09
114.083	0.00	0.05	0.011	O	|	|	|	0.09
114.167	0.00	0.05	0.010	O	|	|	|	0.08
114.250	0.00	0.04	0.010	O	|	|	|	0.08
114.333	0.00	0.04	0.010	O	|	|	|	0.08
114.417	0.00	0.04	0.009	O	|	|	|	0.08
114.500	0.00	0.04	0.009	O	|	|	|	0.07
114.583	0.00	0.04	0.009	O	|	|	|	0.07
114.667	0.00	0.04	0.008	O	|	|	|	0.07
114.750	0.00	0.04	0.008	O	|	|	|	0.07
114.833	0.00	0.04	0.008	O	|	|	|	0.07
114.917	0.00	0.03	0.008	O	|	|	|	0.06
115.000	0.00	0.03	0.007	O	|	|	|	0.06
115.083	0.00	0.03	0.007	O	|	|	|	0.06
115.167	0.00	0.03	0.007	O	|	|	|	0.06

115.250	0.00	0.03	0.007	O				0.06
115.333	0.00	0.03	0.007	O				0.05
115.417	0.00	0.03	0.006	O				0.05
115.500	0.00	0.03	0.006	O				0.05
115.583	0.00	0.03	0.006	O				0.05
115.667	0.00	0.03	0.006	O				0.05
115.750	0.00	0.03	0.006	O				0.05
115.833	0.00	0.02	0.005	O				0.05
115.917	0.00	0.02	0.005	O				0.04
116.000	0.00	0.02	0.005	O				0.04
116.083	0.00	0.02	0.005	O				0.04
116.167	0.00	0.02	0.005	O				0.04
116.250	0.00	0.02	0.005	O				0.04
116.333	0.00	0.02	0.005	O				0.04
116.417	0.00	0.02	0.004	O				0.04
116.500	0.00	0.02	0.004	O				0.04
116.583	0.00	0.02	0.004	O				0.03
116.667	0.00	0.02	0.004	O				0.03
116.750	0.00	0.02	0.004	O				0.03
116.833	0.00	0.02	0.004	O				0.03
116.917	0.00	0.02	0.004	O				0.03
117.000	0.00	0.02	0.004	O				0.03
117.083	0.00	0.02	0.003	O				0.03
117.167	0.00	0.02	0.003	O				0.03
117.250	0.00	0.01	0.003	O				0.03
117.333	0.00	0.01	0.003	O				0.03
117.417	0.00	0.01	0.003	O				0.03
117.500	0.00	0.01	0.003	O				0.02
117.583	0.00	0.01	0.003	O				0.02
117.667	0.00	0.01	0.003	O				0.02
117.750	0.00	0.01	0.003	O				0.02
117.833	0.00	0.01	0.003	O				0.02
117.917	0.00	0.01	0.003	O				0.02
118.000	0.00	0.01	0.002	O				0.02
118.083	0.00	0.01	0.002	O				0.02
118.167	0.00	0.01	0.002	O				0.02
118.250	0.00	0.01	0.002	O				0.02
118.333	0.00	0.01	0.002	O				0.02
118.417	0.00	0.01	0.002	O				0.02
118.500	0.00	0.01	0.002	O				0.02
118.583	0.00	0.01	0.002	O				0.02
118.667	0.00	0.01	0.002	O				0.02
118.750	0.00	0.01	0.002	O				0.02
118.833	0.00	0.01	0.002	O				0.01
118.917	0.00	0.01	0.002	O				0.01
119.000	0.00	0.01	0.002	O				0.01
119.083	0.00	0.01	0.002	O				0.01
119.167	0.00	0.01	0.002	O				0.01
119.250	0.00	0.01	0.002	O				0.01
119.333	0.00	0.01	0.001	O				0.01
119.417	0.00	0.01	0.001	O				0.01
119.500	0.00	0.01	0.001	O				0.01
119.583	0.00	0.01	0.001	O				0.01
119.667	0.00	0.01	0.001	O				0.01

119.750	0.00	0.01	0.001	O				0.01
119.833	0.00	0.01	0.001	O				0.01
119.917	0.00	0.01	0.001	O				0.01
120.000	0.00	0.01	0.001	O				0.01
120.083	0.00	0.01	0.001	O				0.01
120.167	0.00	0.00	0.001	O				0.01
120.250	0.00	0.00	0.001	O				0.01
120.333	0.00	0.00	0.001	O				0.01
120.417	0.00	0.00	0.001	O				0.01
120.500	0.00	0.00	0.001	O				0.01
120.583	0.00	0.00	0.001	O				0.01
120.667	0.00	0.00	0.001	O				0.01
120.750	0.00	0.00	0.001	O				0.01
120.833	0.00	0.00	0.001	O				0.01
120.917	0.00	0.00	0.001	O				0.01
121.000	0.00	0.00	0.001	O				0.01
121.083	0.00	0.00	0.001	O				0.01
121.167	0.00	0.00	0.001	O				0.01
121.250	0.00	0.00	0.001	O				0.01
121.333	0.00	0.00	0.001	O				0.01
121.417	0.00	0.00	0.001	O				0.01
121.500	0.00	0.00	0.001	O				0.01
121.583	0.00	0.00	0.001	O				0.01
121.667	0.00	0.00	0.001	O				0.01
121.750	0.00	0.00	0.001	O				0.01
121.833	0.00	0.00	0.001	O				0.00
121.917	0.00	0.00	0.001	O				0.00
122.000	0.00	0.00	0.001	O				0.00
122.083	0.00	0.00	0.001	O				0.00
122.167	0.00	0.00	0.001	O				0.00
122.250	0.00	0.00	0.001	O				0.00
122.333	0.00	0.00	0.000	O				0.00
122.417	0.00	0.00	0.000	O				0.00
122.500	0.00	0.00	0.000	O				0.00
122.583	0.00	0.00	0.000	O				0.00
122.667	0.00	0.00	0.000	O				0.00
122.750	0.00	0.00	0.000	O				0.00
122.833	0.00	0.00	0.000	O				0.00
122.917	0.00	0.00	0.000	O				0.00
123.000	0.00	0.00	0.000	O				0.00
123.083	0.00	0.00	0.000	O				0.00
123.167	0.00	0.00	0.000	O				0.00
123.250	0.00	0.00	0.000	O				0.00
123.333	0.00	0.00	0.000	O				0.00
123.417	0.00	0.00	0.000	O				0.00
123.500	0.00	0.00	0.000	O				0.00
123.583	0.00	0.00	0.000	O				0.00
123.667	0.00	0.00	0.000	O				0.00
123.750	0.00	0.00	0.000	O				0.00
123.833	0.00	0.00	0.000	O				0.00
123.917	0.00	0.00	0.000	O				0.00
124.000	0.00	0.00	0.000	O				0.00
124.083	0.00	0.00	0.000	O				0.00
124.167	0.00	0.00	0.000	O				0.00

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124.250    0.00    0.00      0.000  O        |        |        |        |      0.00
124.333    0.00    0.00      0.000  O        |        |        |        |      0.00
124.417    0.00    0.00      0.000  O        |        |        |        |      0.00
124.500    0.00    0.00      0.000  O        |        |        |        |      0.00

     ****************************HYDROGRAPH DATA****************************
                Number of intervals =  1494
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        2.202 (CFS)
                Total volume =       6.615 (Ac.Ft)
           Status of hydrographs being held in storage
                      Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
           Peak (CFS)       0.000     0.000     0.000     0.000     0.000
           Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     ***********************************************************************

     ---------------------------------------------------------------------


     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
     Process from Point/Station        1.000 to Point/Station        2.000
     **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
     ______________________________________________________________________
     ********************* HYDROGRAPH INFORMATION **********************

                From study/file name: 32786B2Nat242.rte
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                      P R I N T   O F   S T O R M
                    R u n o f f     H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

     ---------------------------------------------------------------------
   Time(h+m) Add q(CFS)  Tot. Q   0        0.7       1.4       2.1       2.8
   ---------------------------------------------------------------------
     0+ 5       0.0072      0.01  Q         |         |         |         |
     0+10       0.0340      0.04  Q         |         |         |         |
     0+15       0.0488      0.07  Q         |         |         |         |
     0+20       0.0582      0.09  qQ        |         |         |         |
     0+25       0.0751      0.13  |Q        |         |         |         |
     0+30       0.0848      0.16  |qQ       |         |         |         |
     0+35       0.0893      0.19  |qQ       |         |         |         |
     0+40       0.0922      0.21  |q Q      |         |         |         |
     0+45       0.0942      0.24  |q Q      |         |         |         |
     0+50       0.0992      0.27  |q Q      |         |         |         |
     0+55       0.1137      0.30  |q  Q     |         |         |         |
     1+ 0       0.1218      0.31  |q  Q     |         |         |         |
     1+ 5       0.1214      0.32  |q  Q     |         |         |         |
     1+10       0.1100      0.31  |q  Q     |         |         |         |
     1+15       0.1039      0.31  |q  Q     |         |         |         |
     1+20       0.1018      0.32  |q  Q     |         |         |         |
     1+25       0.1007      0.32  |q  Q     |         |         |         |
     1+30       0.0999      0.33  |q  Q     |         |         |         |
     1+35       0.0994      0.33  |q  Q     |         |         |         |
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1+40	0.0991	0.33	q Q			
1+45	0.0988	0.34	q Q			
1+50	0.1021	0.35	q Q			
1+55	0.1153	0.37	q Q			
2+ 0	0.1225	0.38	q Q			
2+ 5	0.1254	0.39	q Q			
2+10	0.1272	0.40	q Q			
2+15	0.1283	0.41	q Q			
2+20	0.1291	0.41	q Q			
2+25	0.1297	0.42	q Q			
2+30	0.1301	0.43	q Q			
2+35	0.1340	0.44	q Q			
2+40	0.1477	0.46	q Q			
2+45	0.1552	0.48	q Q			
2+50	0.1581	0.49	q Q			
2+55	0.1599	0.50	q Q			
3+ 0	0.1610	0.50	q Q			
3+ 5	0.1618	0.51	q Q			
3+10	0.1624	0.51	q Q			
3+15	0.1628	0.51	q Q			
3+20	0.1631	0.51	q Q			
3+25	0.1634	0.52	q Q			
3+30	0.1635	0.52	q Q			
3+35	0.1635	0.52	q Q			
3+40	0.1635	0.53	q Q			
3+45	0.1635	0.53	q Q			
3+50	0.1671	0.53	q Q			
3+55	0.1805	0.55	q Q			
4+ 0	0.1879	0.56	q Q			
4+ 5	0.1908	0.57	q Q			
4+10	0.1926	0.57	q Q			
4+15	0.1937	0.58	q Q			
4+20	0.1981	0.58	q Q			
4+25	0.2121	0.60	q Q			
4+30	0.2199	0.61	q Q			
4+35	0.2231	0.62	q Q			
4+40	0.2251	0.62	q Q			
4+45	0.2264	0.63	q Q			
4+50	0.2308	0.64	q Q			
4+55	0.2448	0.65	q Q			
5+ 0	0.2526	0.67	q Q			
5+ 5	0.2486	0.67	q Q			
5+10	0.2239	0.65	q Q			
5+15	0.2104	0.64	q Q			
5+20	0.2090	0.64	q Q			
5+25	0.2194	0.65	q Q			
5+30	0.2249	0.66	q Q			
5+35	0.2302	0.67	q Q			
5+40	0.2443	0.69	q Q			
5+45	0.2522	0.70	q Q			
5+50	0.2553	0.71	q Q			
5+55	0.2572	0.71	q Q			
6+ 0	0.2585	0.72	q Q			
6+ 5	0.2632	0.73	q Q			

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6+10      0.2774     0.75  |   q     Q         |         |         |
6+15      0.2853     0.76  |   q     Q         |         |         |
6+20      0.2885     0.77  |   q     |Q        |         |         |
6+25      0.2905     0.77  |   q     |Q        |         |         |
6+30      0.2919     0.78  |   q     |Q        |         |         |
6+35      0.2963     0.79  |   q     |Q        |         |         |
6+40      0.3102     0.81  |   q     |Q        |         |         |
6+45      0.3181     0.82  |   q     |Q        |         |         |
6+50      0.3213     0.83  |   q     |Q        |         |         |
6+55      0.3232     0.83  |   q     |Q        |         |         |
7+ 0      0.3246     0.83  |   q     | Q       |         |         |
7+ 5      0.3254     0.84  |   q     | Q       |         |         |
7+10      0.3260     0.84  |   q     | Q       |         |         |
7+15      0.3264     0.84  |   q     | Q       |         |         |
7+20      0.3303     0.85  |   q     | Q       |         |         |
7+25      0.3439     0.87  |   q     | Q       |         |         |
7+30      0.3514     0.88  |    q    | Q       |         |         |
7+35      0.3580     0.88  |    q    | Q       |         |         |
7+40      0.3731     0.90  |    q    |  Q      |         |         |
7+45      0.3817     0.91  |    q    |  Q      |         |         |
7+50      0.3890     0.92  |    q    |  Q      |         |         |
7+55      0.4047     0.94  |    q    |  Q      |         |         |
8+ 0      0.4137     0.96  |    q    |  Q      |         |         |
8+ 5      0.4249     0.97  |     q   |   Q     |         |         |
8+10      0.4542     1.00  |     q   |   Q     |         |         |
8+15      0.4708     1.02  |     q   |   Q     |         |         |
8+20      0.4776     1.03  |     q   |   Q     |         |         |
8+25      0.4820     1.04  |     q   |    Q    |         |         |
8+30      0.4849     1.05  |      q  |    Q    |         |         |
8+35      0.4904     1.06  |      q  |    Q    |         |         |
8+40      0.5052     1.08  |      q  |    Q    |         |         |
8+45      0.5136     1.09  |      q  |    Q    |         |         |
8+50      0.5207     1.10  |      q  |    Q    |         |         |
8+55      0.5363     1.12  |      q  |     Q   |         |         |
9+ 0      0.5452     1.13  |      q  |     Q   |         |         |
9+ 5      0.5561     1.15  |       q |     Q   |         |         |
9+10      0.5852     1.18  |       q |      Q  |         |         |
9+15      0.6016     1.20  |       q |      Q  |         |         |
9+20      0.6121     1.22  |       q |      Q  |         |         |
9+25      0.6298     1.24  |        q|      Q  |         |         |
9+30      0.6401     1.26  |        q|       Q |         |         |
9+35      0.6485     1.27  |        q|       Q |         |         |
9+40      0.6651     1.29  |        q|       Q |         |         |
9+45      0.6746     1.30  |        q|       Q |         |         |
9+50      0.6825     1.32  |        q|        Q|         |         |
9+55      0.6987     1.34  |         q        Q|         |         |
10+ 0     0.7080     1.35  |         q        Q|         |         |
10+ 5     0.6867     1.33  |        q|        Q|         |         |
10+10     0.5957     1.25  |       q |       Q |         |         |
10+15     0.5457     1.20  |      q  |      Q  |         |         |
10+20     0.5265     1.18  |      q  |      Q  |         |         |
10+25     0.5150     1.18  |      q  |      Q  |         |         |
10+30     0.5074     1.17  |      q  |     Q   |         |         |
10+35     0.5203     1.19  |      q  |      Q  |         |         |
```

10+40	0.5832	1.25	
10+45	0.6173	1.29	
10+50	0.6298	1.31	
10+55	0.6369	1.32	
11+ 0	0.6416	1.33	
11+ 5	0.6419	1.33	
11+10	0.6316	1.33	
11+15	0.6263	1.32	
11+20	0.6249	1.33	
11+25	0.6243	1.33	
11+30	0.6239	1.33	
11+35	0.6159	1.33	
11+40	0.5886	1.30	
11+45	0.5733	1.29	
11+50	0.5709	1.29	
11+55	0.5805	1.30	
12+ 0	0.5854	1.31	
12+ 5	0.6120	1.34	
12+10	0.7062	1.44	
12+15	0.7583	1.49	
12+20	0.7824	1.52	
12+25	0.8082	1.55	
12+30	0.8239	1.57	
12+35	0.8398	1.59	
12+40	0.8727	1.63	
12+45	0.8918	1.65	
12+50	0.9041	1.67	
12+55	0.9232	1.69	
13+ 0	0.9345	1.71	
13+ 5	0.9573	1.73	
13+10	1.0274	1.81	
13+15	1.0665	1.85	
13+20	1.0824	1.88	
13+25	1.0923	1.93	
13+30	1.0988	1.97	
13+35	1.0634	1.97	
13+40	0.9194	1.86	
13+45	0.8404	1.81	
13+50	0.8099	1.82	
13+55	0.7917	1.84	
14+ 0	0.7798	1.87	
14+ 5	0.7856	1.91	
14+10	0.8325	2.00	
14+15	0.8573	2.07	
14+20	0.8621	2.11	
14+25	0.8532	2.15	
14+30	0.8487	2.18	
14+35	0.8489	2.23	
14+40	0.8496	2.27	
14+45	0.8501	2.31	
14+50	0.8469	2.35	
14+55	0.8339	2.37	
15+ 0	0.8267	2.41	
15+ 5	0.8199	2.44	

15+10	0.8045	2.47	
15+15	0.7958	2.52	
15+20	0.7885	2.56	
15+25	0.7727	2.60	
15+30	0.7638	2.64	
15+35	0.7453	2.68	
15+40	0.6892	2.67	
15+45	0.6579	2.68	
15+50	0.6452	2.70	
15+55	0.6373	2.73	
16+ 0	0.6321	2.77	
16+ 5	0.5745	2.74	
16+10	0.3712	2.56	
16+15	0.2584	2.46	
16+20	0.2137	2.42	
16+25	0.1864	2.39	
16+30	0.1683	2.36	
16+35	0.1529	2.34	
16+40	0.1305	2.31	
16+45	0.1167	2.29	
16+50	0.1094	2.28	
16+55	0.1041	2.26	
17+ 0	0.1006	2.25	
17+ 5	0.1071	2.24	
17+10	0.1332	2.26	
17+15	0.1476	2.27	
17+20	0.1531	2.27	
17+25	0.1564	2.26	
17+30	0.1585	2.26	
17+35	0.1601	2.26	
17+40	0.1613	2.25	
17+45	0.1622	2.25	
17+50	0.1591	2.24	
17+55	0.1462	2.22	
18+ 0	0.1392	2.21	
18+ 5	0.1362	2.20	
18+10	0.1345	2.19	
18+15	0.1333	2.19	
18+20	0.1325	2.18	
18+25	0.1319	2.17	
18+30	0.1315	2.16	
18+35	0.1276	2.15	
18+40	0.1140	2.13	
18+45	0.1064	2.12	
18+50	0.0999	2.10	
18+55	0.0848	2.07	
19+ 0	0.0762	2.06	
19+ 5	0.0762	2.04	
19+10	0.0872	2.04	
19+15	0.0930	2.04	
19+20	0.0984	2.04	
19+25	0.1127	2.04	
19+30	0.1207	2.04	
19+35	0.1205	2.04	

19+40	0.1092	2.02	|q	|	|	Q|	|
19+45	0.1033	2.00	|q	|	|	Q |	|
19+50	0.0978	1.99	|q	|	|	Q |	|
19+55	0.0835	1.97	|q	|	|	Q |	|
20+ 0	0.0756	1.95	|q	|	|	Q |	|
20+ 5	0.0758	1.94	|q	|	|	Q |	|
20+10	0.0870	1.94	|q	|	|	Q |	|
20+15	0.0930	1.94	|q	|	|	Q |	|
20+20	0.0948	1.93	|q	|	|	Q |	|
20+25	0.0957	1.92	|q	|	|	Q |	|
20+30	0.0963	1.92	|q	|	|	Q |	|
20+35	0.0968	1.91	|q	|	|	Q |	|
20+40	0.0972	1.90	|q	|	|	Q |	|
20+45	0.0974	1.89	|q	|	|	Q |	|
20+50	0.0941	1.88	|q	|	|	Q |	|
20+55	0.0810	1.86	|q	|	|	Q |	|
21+ 0	0.0737	1.85	|q	|	|	Q |	|
21+ 5	0.0744	1.84	|q	|	|	Q |	|
21+10	0.0861	1.84	|q	|	|	Q |	|
21+15	0.0923	1.84	|q	|	|	Q |	|
21+20	0.0908	1.83	|q	|	|	Q |	|
21+25	0.0786	1.81	|q	|	|	Q |	|
21+30	0.0719	1.79	|q	|	|	Q |	|
21+35	0.0731	1.78	|q	|	|	Q |	|
21+40	0.0851	1.79	|q	|	|	Q |	|
21+45	0.0916	1.79	|q	|	|	Q |	|
21+50	0.0904	1.78	|q	|	|	Q |	|
21+55	0.0784	1.76	|q	|	|	Q |	|
22+ 0	0.0719	1.74	|q	|	|	Q |	|
22+ 5	0.0731	1.74	|q	|	|	Q |	|
22+10	0.0851	1.74	|q	|	|	Q |	|
22+15	0.0916	1.74	|q	|	|	Q |	|
22+20	0.0904	1.73	|q	|	|	Q |	|
22+25	0.0784	1.71	|q	|	|	Q |	|
22+30	0.0719	1.70	|q	|	|	Q |	|
22+35	0.0695	1.69	|q	|	|	Q |	|
22+40	0.0681	1.69	q	|	|	Q |	|
22+45	0.0672	1.68	q	|	|	Q |	|
22+50	0.0667	1.67	q	|	|	Q |	|
22+55	0.0664	1.67	q	|	|	Q |	|
23+ 0	0.0661	1.66	q	|	|	Q |	|
23+ 5	0.0658	1.66	q	|	|	Q |	|
23+10	0.0656	1.65	q	|	|	Q |	|
23+15	0.0654	1.64	q	|	|	Q |	|
23+20	0.0654	1.64	q	|	|	Q |	|
23+25	0.0654	1.63	q	|	|	Q |	|
23+30	0.0654	1.63	q	|	|	Q |	|
23+35	0.0654	1.62	q	|	|	Q |	|
23+40	0.0654	1.62	q	|	|	Q |	|
23+45	0.0654	1.61	q	|	|	Q |	|
23+50	0.0654	1.61	q	|	|	Q |	|
23+55	0.0654	1.60	q	|	|	Q |	|
24+ 0	0.0654	1.60	q	|	|	Q |	|
24+ 5	0.0582	1.58	q	|	|	Q |	|

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24+10      0.0314     1.55  q          |          | Q        |          |
24+15      0.0166     1.53  q          |          | Q        |          |
24+20      0.0108     1.51  q          |          |Q         |          |
24+25      0.0073     1.50  q          |          |Q         |          |
24+30      0.0050     1.49  q          |          |Q         |          |
24+35      0.0034     1.48  q          |          |Q         |          |
24+40      0.0022     1.47  q          |          |Q         |          |
24+45      0.0014     1.46  q          |          |Q         |          |
24+50      0.0008     1.45  q          |          Q          |          |
24+55      0.0003     1.44  q          |          Q          |          |
25+ 0      0.0000     1.43  q          |          Q          |          |
25+ 5      0.0000     1.43  q          |          Q          |          |
25+10      0.0000     1.42  q          |          Q          |          |
25+15      0.0000     1.41  q          |          Q          |          |
25+20      0.0000     1.40  q          |          Q          |          |
25+25      0.0000     1.39  q          |          Q          |          |
25+30      0.0000     1.38  q          |          Q          |          |
25+35      0.0000     1.38  q          |         Q|          |          |
25+40      0.0000     1.37  q          |         Q|          |          |
25+45      0.0000     1.36  q          |         Q|          |          |
25+50      0.0000     1.35  q          |         Q|          |          |
25+55      0.0000     1.34  q          |         Q|          |          |
26+ 0      0.0000     1.33  q          |         Q|          |          |
26+ 5      0.0000     1.33  q          |         Q|          |          |
26+10      0.0000     1.32  q          |         Q|          |          |
26+15      0.0000     1.31  q          |        Q |          |          |
26+20      0.0000     1.30  q          |        Q |          |          |
26+25      0.0000     1.30  q          |        Q |          |          |
26+30      0.0000     1.29  q          |        Q |          |          |
26+35      0.0000     1.28  q          |        Q |          |          |
26+40      0.0000     1.27  q          |        Q |          |          |
26+45      0.0000     1.27  q          |        Q |          |          |
26+50      0.0000     1.26  q          |        Q |          |          |
26+55      0.0000     1.25  q          |        Q |          |          |
27+ 0      0.0000     1.24  q          |       Q  |          |          |
27+ 5      0.0000     1.24  q          |       Q  |          |          |
27+10      0.0000     1.23  q          |       Q  |          |          |
27+15      0.0000     1.22  q          |       Q  |          |          |
27+20      0.0000     1.21  q          |       Q  |          |          |
27+25      0.0000     1.21  q          |       Q  |          |          |
27+30      0.0000     1.20  q          |       Q  |          |          |
27+35      0.0000     1.19  q          |       Q  |          |          |
27+40      0.0000     1.18  q          |       Q  |          |          |
27+45      0.0000     1.18  q          |       Q  |          |          |
27+50      0.0000     1.17  q          |      Q   |          |          |
27+55      0.0000     1.16  q          |      Q   |          |          |
28+ 0      0.0000     1.16  q          |      Q   |          |          |
28+ 5      0.0000     1.15  q          |      Q   |          |          |
28+10      0.0000     1.14  q          |      Q   |          |          |
28+15      0.0000     1.14  q          |      Q   |          |          |
28+20      0.0000     1.13  q          |      Q   |          |          |
28+25      0.0000     1.12  q          |      Q   |          |          |
28+30      0.0000     1.12  q          |      Q   |          |          |
28+35      0.0000     1.11  q          |      Q   |          |          |
```

28+40	0.0000	1.10	q	Q			
28+45	0.0000	1.10	q	Q			
28+50	0.0000	1.09	q	Q			
28+55	0.0000	1.08	q	Q			
29+ 0	0.0000	1.08	q	Q			
29+ 5	0.0000	1.07	q	Q			
29+10	0.0000	1.06	q	Q			
29+15	0.0000	1.06	q	Q			
29+20	0.0000	1.05	q	Q			
29+25	0.0000	1.05	q	Q			
29+30	0.0000	1.04	q	Q			
29+35	0.0000	1.03	q	Q			
29+40	0.0000	1.03	q	Q			
29+45	0.0000	1.02	q	Q			
29+50	0.0000	1.01	q	Q			
29+55	0.0000	1.01	q	Q			
30+ 0	0.0000	1.00	q	Q			
30+ 5	0.0000	1.00	q	Q			
30+10	0.0000	0.99	q	Q			
30+15	0.0000	0.99	q	Q			
30+20	0.0000	0.98	q	Q			
30+25	0.0000	0.98	q	Q			
30+30	0.0000	0.98	q	Q			
30+35	0.0000	0.97	q	Q			
30+40	0.0000	0.97	q	Q			
30+45	0.0000	0.96	q	Q			
30+50	0.0000	0.96	q	Q			
30+55	0.0000	0.96	q	Q			
31+ 0	0.0000	0.95	q	Q			
31+ 5	0.0000	0.95	q	Q			
31+10	0.0000	0.95	q	Q			
31+15	0.0000	0.94	q	Q			
31+20	0.0000	0.94	q	Q			
31+25	0.0000	0.94	q	Q			
31+30	0.0000	0.93	q	Q			
31+35	0.0000	0.93	q	Q			
31+40	0.0000	0.92	q	Q			
31+45	0.0000	0.92	q	Q			
31+50	0.0000	0.92	q	Q			
31+55	0.0000	0.91	q	Q			
32+ 0	0.0000	0.91	q	Q			
32+ 5	0.0000	0.91	q	Q			
32+10	0.0000	0.90	q	Q			
32+15	0.0000	0.90	q	Q			
32+20	0.0000	0.90	q	Q			
32+25	0.0000	0.89	q	Q			
32+30	0.0000	0.89	q	Q			
32+35	0.0000	0.89	q	Q			
32+40	0.0000	0.88	q	Q			
32+45	0.0000	0.88	q	Q			
32+50	0.0000	0.88	q	Q			
32+55	0.0000	0.87	q	Q			
33+ 0	0.0000	0.87	q	Q			
33+ 5	0.0000	0.87	q	Q			

33+10	0.0000	0.86	q	Q			
33+15	0.0000	0.86	q	Q			
33+20	0.0000	0.86	q	Q			
33+25	0.0000	0.85	q	Q			
33+30	0.0000	0.85	q	Q			
33+35	0.0000	0.85	q	Q			
33+40	0.0000	0.84	q	Q			
33+45	0.0000	0.84	q	Q			
33+50	0.0000	0.84	q	Q			
33+55	0.0000	0.83	q	Q			
34+ 0	0.0000	0.83	q	Q			
34+ 5	0.0000	0.83	q	Q			
34+10	0.0000	0.82	q	Q			
34+15	0.0000	0.82	q	Q			
34+20	0.0000	0.82	q	Q			
34+25	0.0000	0.81	q	Q			
34+30	0.0000	0.81	q	Q			
34+35	0.0000	0.81	q	Q			
34+40	0.0000	0.81	q	Q			
34+45	0.0000	0.80	q	Q			
34+50	0.0000	0.80	q	Q			
34+55	0.0000	0.80	q	Q			
35+ 0	0.0000	0.79	q	Q			
35+ 5	0.0000	0.79	q	Q			
35+10	0.0000	0.79	q	Q			
35+15	0.0000	0.79	q	Q			
35+20	0.0000	0.79	q	Q			
35+25	0.0000	0.79	q	Q			
35+30	0.0000	0.79	q	Q			
35+35	0.0000	0.79	q	Q			
35+40	0.0000	0.79	q	Q			
35+45	0.0000	0.79	q	Q			
35+50	0.0000	0.79	q	Q			
35+55	0.0000	0.79	q	Q			
36+ 0	0.0000	0.79	q	Q			
36+ 5	0.0000	0.79	q	Q			
36+10	0.0000	0.78	q	Q			
36+15	0.0000	0.78	q	Q			
36+20	0.0000	0.78	q	Q			
36+25	0.0000	0.78	q	Q			
36+30	0.0000	0.78	q	Q			
36+35	0.0000	0.78	q	Q			
36+40	0.0000	0.78	q	Q			
36+45	0.0000	0.78	q	Q			
36+50	0.0000	0.78	q	Q			
36+55	0.0000	0.78	q	Q			
37+ 0	0.0000	0.78	q	Q			
37+ 5	0.0000	0.78	q	Q			
37+10	0.0000	0.78	q	Q			
37+15	0.0000	0.78	q	Q			
37+20	0.0000	0.78	q	Q			
37+25	0.0000	0.78	q	Q			
37+30	0.0000	0.78	q	Q			
37+35	0.0000	0.78	q	Q			

37+40	0.0000	0.78	q	|Q	|	|	|
37+45	0.0000	0.78	q	|Q	|	|	|
37+50	0.0000	0.78	q	|Q	|	|	|
37+55	0.0000	0.78	q	|Q	|	|	|
38+ 0	0.0000	0.78	q	|Q	|	|	|
38+ 5	0.0000	0.78	q	|Q	|	|	|
38+10	0.0000	0.77	q	|Q	|	|	|
38+15	0.0000	0.77	q	|Q	|	|	|
38+20	0.0000	0.77	q	|Q	|	|	|
38+25	0.0000	0.77	q	|Q	|	|	|
38+30	0.0000	0.77	q	|Q	|	|	|
38+35	0.0000	0.77	q	|Q	|	|	|
38+40	0.0000	0.77	q	|Q	|	|	|
38+45	0.0000	0.77	q	|Q	|	|	|
38+50	0.0000	0.77	q	|Q	|	|	|
38+55	0.0000	0.77	q	|Q	|	|	|
39+ 0	0.0000	0.77	q	|Q	|	|	|
39+ 5	0.0000	0.77	q	|Q	|	|	|
39+10	0.0000	0.77	q	|Q	|	|	|
39+15	0.0000	0.77	q	|Q	|	|	|
39+20	0.0000	0.77	q	|Q	|	|	|
39+25	0.0000	0.77	q	|Q	|	|	|
39+30	0.0000	0.77	q	|Q	|	|	|
39+35	0.0000	0.77	q	|Q	|	|	|
39+40	0.0000	0.77	q	|Q	|	|	|
39+45	0.0000	0.77	q	|Q	|	|	|
39+50	0.0000	0.77	q	|Q	|	|	|
39+55	0.0000	0.77	q	|Q	|	|	|
40+ 0	0.0000	0.77	q	|Q	|	|	|
40+ 5	0.0000	0.77	q	|Q	|	|	|
40+10	0.0000	0.76	q	|Q	|	|	|
40+15	0.0000	0.76	q	|Q	|	|	|
40+20	0.0000	0.76	q	|Q	|	|	|
40+25	0.0000	0.76	q	|Q	|	|	|
40+30	0.0000	0.76	q	|Q	|	|	|
40+35	0.0000	0.76	q	|Q	|	|	|
40+40	0.0000	0.76	q	|Q	|	|	|
40+45	0.0000	0.76	q	|Q	|	|	|
40+50	0.0000	0.76	q	|Q	|	|	|
40+55	0.0000	0.76	q	|Q	|	|	|
41+ 0	0.0000	0.76	q	|Q	|	|	|
41+ 5	0.0000	0.76	q	Q	|	|	|
41+10	0.0000	0.76	q	Q	|	|	|
41+15	0.0000	0.76	q	Q	|	|	|
41+20	0.0000	0.76	q	Q	|	|	|
41+25	0.0000	0.76	q	Q	|	|	|
41+30	0.0000	0.76	q	Q	|	|	|
41+35	0.0000	0.76	q	Q	|	|	|
41+40	0.0000	0.76	q	Q	|	|	|
41+45	0.0000	0.76	q	Q	|	|	|
41+50	0.0000	0.76	q	Q	|	|	|
41+55	0.0000	0.76	q	Q	|	|	|
42+ 0	0.0000	0.76	q	Q	|	|	|
42+ 5	0.0000	0.76	q	Q	|	|	|

42+10	0.0000	0.76	q	Q			
42+15	0.0000	0.75	q	Q			
42+20	0.0000	0.75	q	Q			
42+25	0.0000	0.75	q	Q			
42+30	0.0000	0.75	q	Q			
42+35	0.0000	0.75	q	Q			
42+40	0.0000	0.75	q	Q			
42+45	0.0000	0.75	q	Q			
42+50	0.0000	0.75	q	Q			
42+55	0.0000	0.75	q	Q			
43+ 0	0.0000	0.75	q	Q			
43+ 5	0.0000	0.75	q	Q			
43+10	0.0000	0.75	q	Q			
43+15	0.0000	0.75	q	Q			
43+20	0.0000	0.75	q	Q			
43+25	0.0000	0.75	q	Q			
43+30	0.0000	0.75	q	Q			
43+35	0.0000	0.75	q	Q			
43+40	0.0000	0.75	q	Q			
43+45	0.0000	0.75	q	Q			
43+50	0.0000	0.75	q	Q			
43+55	0.0000	0.75	q	Q			
44+ 0	0.0000	0.75	q	Q			
44+ 5	0.0000	0.75	q	Q			
44+10	0.0000	0.75	q	Q			
44+15	0.0000	0.75	q	Q			
44+20	0.0000	0.74	q	Q			
44+25	0.0000	0.74	q	Q			
44+30	0.0000	0.74	q	Q			
44+35	0.0000	0.74	q	Q			
44+40	0.0000	0.74	q	Q			
44+45	0.0000	0.74	q	Q			
44+50	0.0000	0.74	q	Q			
44+55	0.0000	0.74	q	Q			
45+ 0	0.0000	0.74	q	Q			
45+ 5	0.0000	0.74	q	Q			
45+10	0.0000	0.74	q	Q			
45+15	0.0000	0.74	q	Q			
45+20	0.0000	0.74	q	Q			
45+25	0.0000	0.74	q	Q			
45+30	0.0000	0.74	q	Q			
45+35	0.0000	0.74	q	Q			
45+40	0.0000	0.74	q	Q			
45+45	0.0000	0.74	q	Q			
45+50	0.0000	0.74	q	Q			
45+55	0.0000	0.74	q	Q			
46+ 0	0.0000	0.74	q	Q			
46+ 5	0.0000	0.74	q	Q			
46+10	0.0000	0.74	q	Q			
46+15	0.0000	0.74	q	Q			
46+20	0.0000	0.74	q	Q			
46+25	0.0000	0.74	q	Q			
46+30	0.0000	0.73	q	Q			
46+35	0.0000	0.73	q	Q			

46+40	0.0000	0.73	q	Q			
46+45	0.0000	0.73	q	Q			
46+50	0.0000	0.73	q	Q			
46+55	0.0000	0.73	q	Q			
47+ 0	0.0000	0.73	q	Q			
47+ 5	0.0000	0.73	q	Q			
47+10	0.0000	0.73	q	Q			
47+15	0.0000	0.73	q	Q			
47+20	0.0000	0.73	q	Q			
47+25	0.0000	0.73	q	Q			
47+30	0.0000	0.73	q	Q			
47+35	0.0000	0.73	q	Q			
47+40	0.0000	0.73	q	Q			
47+45	0.0000	0.73	q	Q			
47+50	0.0000	0.73	q	Q			
47+55	0.0000	0.73	q	Q			
48+ 0	0.0000	0.73	q	Q			
48+ 5	0.0000	0.73	q	Q			
48+10	0.0000	0.73	q	Q			
48+15	0.0000	0.73	q	Q			
48+20	0.0000	0.73	q	Q			
48+25	0.0000	0.73	q	Q			
48+30	0.0000	0.73	q	Q			
48+35	0.0000	0.73	q	Q			
48+40	0.0000	0.72	q	Q			
48+45	0.0000	0.72	q	Q			
48+50	0.0000	0.72	q	Q			
48+55	0.0000	0.72	q	Q			
49+ 0	0.0000	0.72	q	Q			
49+ 5	0.0000	0.72	q	Q			
49+10	0.0000	0.72	q	Q			
49+15	0.0000	0.72	q	Q			
49+20	0.0000	0.72	q	Q			
49+25	0.0000	0.72	q	Q			
49+30	0.0000	0.72	q	Q			
49+35	0.0000	0.72	q	Q			
49+40	0.0000	0.72	q	Q			
49+45	0.0000	0.72	q	Q			
49+50	0.0000	0.72	q	Q			
49+55	0.0000	0.72	q	Q			
50+ 0	0.0000	0.72	q	Q			
50+ 5	0.0000	0.72	q	Q			
50+10	0.0000	0.72	q	Q			
50+15	0.0000	0.72	q	Q			
50+20	0.0000	0.72	q	Q			
50+25	0.0000	0.72	q	Q			
50+30	0.0000	0.72	q	Q			
50+35	0.0000	0.72	q	Q			
50+40	0.0000	0.72	q	Q			
50+45	0.0000	0.72	q	Q			
50+50	0.0000	0.71	q	Q			
50+55	0.0000	0.71	q	Q			
51+ 0	0.0000	0.71	q	Q			
51+ 5	0.0000	0.71	q	Q			

51+10	0.0000	0.71	q	Q			
51+15	0.0000	0.71	q	Q			
51+20	0.0000	0.71	q	Q			
51+25	0.0000	0.71	q	Q			
51+30	0.0000	0.71	q	Q			
51+35	0.0000	0.71	q	Q			
51+40	0.0000	0.71	q	Q			
51+45	0.0000	0.71	q	Q			
51+50	0.0000	0.71	q	Q			
51+55	0.0000	0.71	q	Q			
52+ 0	0.0000	0.71	q	Q			
52+ 5	0.0000	0.71	q	Q			
52+10	0.0000	0.71	q	Q			
52+15	0.0000	0.71	q	Q			
52+20	0.0000	0.71	q	Q			
52+25	0.0000	0.71	q	Q			
52+30	0.0000	0.71	q	Q			
52+35	0.0000	0.71	q	Q			
52+40	0.0000	0.71	q	Q			
52+45	0.0000	0.70	q	Q			
52+50	0.0000	0.70	q	Q			
52+55	0.0000	0.70	q	Q			
53+ 0	0.0000	0.70	q	Q			
53+ 5	0.0000	0.70	q	Q			
53+10	0.0000	0.70	q	Q			
53+15	0.0000	0.70	q	Q			
53+20	0.0000	0.70	q	Q			
53+25	0.0000	0.70	q	Q			
53+30	0.0000	0.70	q	Q			
53+35	0.0000	0.70	q	Q			
53+40	0.0000	0.70	q	Q			
53+45	0.0000	0.70	q	Q			
53+50	0.0000	0.70	q	Q			
53+55	0.0000	0.70	q	Q			
54+ 0	0.0000	0.70	q	Q			
54+ 5	0.0000	0.70	q	Q			
54+10	0.0000	0.70	q	Q			
54+15	0.0000	0.70	q	Q			
54+20	0.0000	0.70	q	Q			
54+25	0.0000	0.69	q	Q			
54+30	0.0000	0.69	q	Q			
54+35	0.0000	0.69	q	Q			
54+40	0.0000	0.69	q	Q			
54+45	0.0000	0.69	q	Q			
54+50	0.0000	0.69	q	Q			
54+55	0.0000	0.69	q	Q			
55+ 0	0.0000	0.69	q	Q			
55+ 5	0.0000	0.69	q	Q			
55+10	0.0000	0.69	q	Q			
55+15	0.0000	0.69	q	Q			
55+20	0.0000	0.69	q	Q			
55+25	0.0000	0.69	q	Q			
55+30	0.0000	0.69	q	Q			
55+35	0.0000	0.69	q	Q			

55+40	0.0000	0.69	q	Q|	|	|	|
55+45	0.0000	0.69	q	Q|	|	|	|
55+50	0.0000	0.69	q	Q|	|	|	|
55+55	0.0000	0.69	q	Q|	|	|	|
56+ 0	0.0000	0.69	q	Q|	|	|	|
56+ 5	0.0000	0.68	q	Q|	|	|	|
56+10	0.0000	0.68	q	Q|	|	|	|
56+15	0.0000	0.68	q	Q|	|	|	|
56+20	0.0000	0.68	q	Q|	|	|	|
56+25	0.0000	0.68	q	Q|	|	|	|
56+30	0.0000	0.68	q	Q|	|	|	|
56+35	0.0000	0.68	q	Q|	|	|	|
56+40	0.0000	0.68	q	Q|	|	|	|
56+45	0.0000	0.68	q	Q|	|	|	|
56+50	0.0000	0.68	q	Q|	|	|	|
56+55	0.0000	0.68	q	Q|	|	|	|
57+ 0	0.0000	0.68	q	Q|	|	|	|
57+ 5	0.0000	0.68	q	Q|	|	|	|
57+10	0.0000	0.68	q	Q|	|	|	|
57+15	0.0000	0.68	q	Q|	|	|	|
57+20	0.0000	0.68	q	Q|	|	|	|
57+25	0.0000	0.68	q	Q|	|	|	|
57+30	0.0000	0.68	q	Q|	|	|	|
57+35	0.0000	0.68	q	Q|	|	|	|
57+40	0.0000	0.68	q	Q|	|	|	|
57+45	0.0000	0.67	q	Q|	|	|	|
57+50	0.0000	0.67	q	Q|	|	|	|
57+55	0.0000	0.67	q	Q|	|	|	|
58+ 0	0.0000	0.67	q	Q|	|	|	|
58+ 5	0.0000	0.67	q	Q|	|	|	|
58+10	0.0000	0.67	q	Q|	|	|	|
58+15	0.0000	0.67	q	Q|	|	|	|
58+20	0.0000	0.67	q	Q|	|	|	|
58+25	0.0000	0.67	q	Q|	|	|	|
58+30	0.0000	0.67	q	Q|	|	|	|
58+35	0.0000	0.67	q	Q|	|	|	|
58+40	0.0000	0.67	q	Q|	|	|	|
58+45	0.0000	0.67	q	Q|	|	|	|
58+50	0.0000	0.67	q	Q|	|	|	|
58+55	0.0000	0.67	q	Q|	|	|	|
59+ 0	0.0000	0.67	q	Q|	|	|	|
59+ 5	0.0000	0.67	q	Q|	|	|	|
59+10	0.0000	0.67	q	Q|	|	|	|
59+15	0.0000	0.67	q	Q|	|	|	|
59+20	0.0000	0.67	q	Q|	|	|	|
59+25	0.0000	0.66	q	Q|	|	|	|
59+30	0.0000	0.66	q	Q|	|	|	|
59+35	0.0000	0.66	q	Q|	|	|	|
59+40	0.0000	0.66	q	Q|	|	|	|
59+45	0.0000	0.66	q	Q|	|	|	|
59+50	0.0000	0.66	q	Q|	|	|	|
59+55	0.0000	0.66	q	Q|	|	|	|
60+ 0	0.0000	0.66	q	Q|	|	|	|
60+ 5	0.0000	0.66	q	Q|	|	|	|

60+10	0.0000	0.66	q	Q			
60+15	0.0000	0.66	q	Q			
60+20	0.0000	0.66	q	Q			
60+25	0.0000	0.66	q	Q			
60+30	0.0000	0.66	q	Q			
60+35	0.0000	0.66	q	Q			
60+40	0.0000	0.66	q	Q			
60+45	0.0000	0.66	q	Q			
60+50	0.0000	0.66	q	Q			
60+55	0.0000	0.66	q	Q			
61+ 0	0.0000	0.66	q	Q			
61+ 5	0.0000	0.66	q	Q			
61+10	0.0000	0.65	q	Q			
61+15	0.0000	0.65	q	Q			
61+20	0.0000	0.65	q	Q			
61+25	0.0000	0.65	q	Q			
61+30	0.0000	0.65	q	Q			
61+35	0.0000	0.65	q	Q			
61+40	0.0000	0.65	q	Q			
61+45	0.0000	0.65	q	Q			
61+50	0.0000	0.65	q	Q			
61+55	0.0000	0.65	q	Q			
62+ 0	0.0000	0.65	q	Q			
62+ 5	0.0000	0.65	q	Q			
62+10	0.0000	0.65	q	Q			
62+15	0.0000	0.65	q	Q			
62+20	0.0000	0.65	q	Q			
62+25	0.0000	0.65	q	Q			
62+30	0.0000	0.65	q	Q			
62+35	0.0000	0.65	q	Q			
62+40	0.0000	0.65	q	Q			
62+45	0.0000	0.65	q	Q			
62+50	0.0000	0.65	q	Q			
62+55	0.0000	0.65	q	Q			
63+ 0	0.0000	0.64	q	Q			
63+ 5	0.0000	0.64	q	Q			
63+10	0.0000	0.64	q	Q			
63+15	0.0000	0.64	q	Q			
63+20	0.0000	0.64	q	Q			
63+25	0.0000	0.64	q	Q			
63+30	0.0000	0.64	q	Q			
63+35	0.0000	0.64	q	Q			
63+40	0.0000	0.64	q	Q			
63+45	0.0000	0.64	q	Q			
63+50	0.0000	0.64	q	Q			
63+55	0.0000	0.64	q	Q			
64+ 0	0.0000	0.64	q	Q			
64+ 5	0.0000	0.64	q	Q			
64+10	0.0000	0.64	q	Q			
64+15	0.0000	0.64	q	Q			
64+20	0.0000	0.64	q	Q			
64+25	0.0000	0.64	q	Q			
64+30	0.0000	0.64	q	Q			
64+35	0.0000	0.64	q	Q			

64+40	0.0000	0.64	q	Q				
64+45	0.0000	0.63	q	Q				
64+50	0.0000	0.63	q	Q				
64+55	0.0000	0.63	q	Q				
65+ 0	0.0000	0.63	q	Q				
65+ 5	0.0000	0.63	q	Q				
65+10	0.0000	0.63	q	Q				
65+15	0.0000	0.63	q	Q				
65+20	0.0000	0.63	q	Q				
65+25	0.0000	0.63	q	Q				
65+30	0.0000	0.63	q	Q				
65+35	0.0000	0.63	q	Q				
65+40	0.0000	0.63	q	Q				
65+45	0.0000	0.63	q	Q				
65+50	0.0000	0.63	q	Q				
65+55	0.0000	0.63	q	Q				
66+ 0	0.0000	0.63	q	Q				
66+ 5	0.0000	0.63	q	Q				
66+10	0.0000	0.63	q	Q				
66+15	0.0000	0.63	q	Q				
66+20	0.0000	0.63	q	Q				
66+25	0.0000	0.63	q	Q				
66+30	0.0000	0.63	q	Q				
66+35	0.0000	0.62	q	Q				
66+40	0.0000	0.62	q	Q				
66+45	0.0000	0.62	q	Q				
66+50	0.0000	0.62	q	Q				
66+55	0.0000	0.62	q	Q				
67+ 0	0.0000	0.62	q	Q				
67+ 5	0.0000	0.62	q	Q				
67+10	0.0000	0.62	q	Q				
67+15	0.0000	0.62	q	Q				
67+20	0.0000	0.62	q	Q				
67+25	0.0000	0.62	q	Q				
67+30	0.0000	0.62	q	Q				
67+35	0.0000	0.62	q	Q				
67+40	0.0000	0.62	q	Q				
67+45	0.0000	0.62	q	Q				
67+50	0.0000	0.62	q	Q				
67+55	0.0000	0.62	q	Q				
68+ 0	0.0000	0.62	q	Q				
68+ 5	0.0000	0.62	q	Q				
68+10	0.0000	0.62	q	Q				
68+15	0.0000	0.62	q	Q				
68+20	0.0000	0.62	q	Q				
68+25	0.0000	0.61	q	Q				
68+30	0.0000	0.61	q	Q				
68+35	0.0000	0.61	q	Q				
68+40	0.0000	0.61	q	Q				
68+45	0.0000	0.61	q	Q				
68+50	0.0000	0.61	q	Q				
68+55	0.0000	0.61	q	Q				
69+ 0	0.0000	0.61	q	Q				
69+ 5	0.0000	0.61	q	Q				

69+10	0.0000	0.61	q	Q				
69+15	0.0000	0.61	q	Q				
69+20	0.0000	0.61	q	Q				
69+25	0.0000	0.61	q	Q				
69+30	0.0000	0.61	q	Q				
69+35	0.0000	0.61	q	Q				
69+40	0.0000	0.61	q	Q				
69+45	0.0000	0.61	q	Q				
69+50	0.0000	0.61	q	Q				
69+55	0.0000	0.61	q	Q				
70+ 0	0.0000	0.61	q	Q				
70+ 5	0.0000	0.60	q	Q				
70+10	0.0000	0.60	q	Q				
70+15	0.0000	0.60	q	Q				
70+20	0.0000	0.60	q	Q				
70+25	0.0000	0.60	q	Q				
70+30	0.0000	0.60	q	Q				
70+35	0.0000	0.60	q	Q				
70+40	0.0000	0.60	q	Q				
70+45	0.0000	0.60	q	Q				
70+50	0.0000	0.60	q	Q				
70+55	0.0000	0.60	q	Q				
71+ 0	0.0000	0.60	q	Q				
71+ 5	0.0000	0.60	q	Q				
71+10	0.0000	0.60	q	Q				
71+15	0.0000	0.60	q	Q				
71+20	0.0000	0.60	q	Q				
71+25	0.0000	0.60	q	Q				
71+30	0.0000	0.60	q	Q				
71+35	0.0000	0.59	q	Q				
71+40	0.0000	0.59	q	Q				
71+45	0.0000	0.59	q	Q				
71+50	0.0000	0.59	q	Q				
71+55	0.0000	0.59	q	Q				
72+ 0	0.0000	0.59	q	Q				
72+ 5	0.0000	0.59	q	Q				
72+10	0.0000	0.59	q	Q				
72+15	0.0000	0.59	q	Q				
72+20	0.0000	0.59	q	Q				
72+25	0.0000	0.59	q	Q				
72+30	0.0000	0.59	q	Q				
72+35	0.0000	0.59	q	Q				
72+40	0.0000	0.59	q	Q				
72+45	0.0000	0.59	q	Q				
72+50	0.0000	0.59	q	Q				
72+55	0.0000	0.59	q	Q				
73+ 0	0.0000	0.59	q	Q				
73+ 5	0.0000	0.58	q	Q				
73+10	0.0000	0.58	q	Q				
73+15	0.0000	0.58	q	Q				
73+20	0.0000	0.58	q	Q				
73+25	0.0000	0.58	q	Q				
73+30	0.0000	0.58	q	Q				
73+35	0.0000	0.58	q	Q				

73+40	0.0000	0.58	q	Q				
73+45	0.0000	0.58	q	Q				
73+50	0.0000	0.58	q	Q				
73+55	0.0000	0.58	q	Q				
74+ 0	0.0000	0.58	q	Q				
74+ 5	0.0000	0.58	q	Q				
74+10	0.0000	0.58	q	Q				
74+15	0.0000	0.58	q	Q				
74+20	0.0000	0.58	q	Q				
74+25	0.0000	0.58	q	Q				
74+30	0.0000	0.58	q	Q				
74+35	0.0000	0.58	q	Q				
74+40	0.0000	0.57	q	Q				
74+45	0.0000	0.57	q	Q				
74+50	0.0000	0.57	q	Q				
74+55	0.0000	0.57	q	Q				
75+ 0	0.0000	0.57	q	Q				
75+ 5	0.0000	0.57	q	Q				
75+10	0.0000	0.57	q	Q				
75+15	0.0000	0.57	q	Q				
75+20	0.0000	0.57	q	Q				
75+25	0.0000	0.57	q	Q				
75+30	0.0000	0.57	q	Q				
75+35	0.0000	0.57	q	Q				
75+40	0.0000	0.57	q	Q				
75+45	0.0000	0.57	q	Q				
75+50	0.0000	0.57	q	Q				
75+55	0.0000	0.57	q	Q				
76+ 0	0.0000	0.57	q	Q				
76+ 5	0.0000	0.57	q	Q				
76+10	0.0000	0.56	q	Q				
76+15	0.0000	0.56	q	Q				
76+20	0.0000	0.56	q	Q				
76+25	0.0000	0.56	q	Q				
76+30	0.0000	0.56	q	Q				
76+35	0.0000	0.56	q	Q				
76+40	0.0000	0.56	q	Q				
76+45	0.0000	0.56	q	Q				
76+50	0.0000	0.56	q	Q				
76+55	0.0000	0.56	q	Q				
77+ 0	0.0000	0.56	q	Q				
77+ 5	0.0000	0.56	q	Q				
77+10	0.0000	0.56	q	Q				
77+15	0.0000	0.56	q	Q				
77+20	0.0000	0.56	q	Q				
77+25	0.0000	0.56	q	Q				
77+30	0.0000	0.56	q	Q				
77+35	0.0000	0.56	q	Q				
77+40	0.0000	0.56	q	Q				
77+45	0.0000	0.56	q	Q				
77+50	0.0000	0.55	q	Q				
77+55	0.0000	0.55	q	Q				
78+ 0	0.0000	0.55	q	Q				
78+ 5	0.0000	0.55	q	Q				

78+10	0.0000	0.55	q	Q				
78+15	0.0000	0.55	q	Q				
78+20	0.0000	0.55	q	Q				
78+25	0.0000	0.55	q	Q				
78+30	0.0000	0.55	q	Q				
78+35	0.0000	0.55	q	Q				
78+40	0.0000	0.55	q	Q				
78+45	0.0000	0.55	q	Q				
78+50	0.0000	0.55	q	Q				
78+55	0.0000	0.55	q	Q				
79+ 0	0.0000	0.55	q	Q				
79+ 5	0.0000	0.55	q	Q				
79+10	0.0000	0.55	q	Q				
79+15	0.0000	0.55	q	Q				
79+20	0.0000	0.55	q	Q				
79+25	0.0000	0.54	q	Q				
79+30	0.0000	0.54	q	Q				
79+35	0.0000	0.54	q	Q				
79+40	0.0000	0.54	q	Q				
79+45	0.0000	0.54	q	Q				
79+50	0.0000	0.54	q	Q				
79+55	0.0000	0.54	q	Q				
80+ 0	0.0000	0.54	q	Q				
80+ 5	0.0000	0.54	q	Q				
80+10	0.0000	0.54	q	Q				
80+15	0.0000	0.54	q	Q				
80+20	0.0000	0.54	q	Q				
80+25	0.0000	0.54	q	Q				
80+30	0.0000	0.54	q	Q				
80+35	0.0000	0.54	q	Q				
80+40	0.0000	0.54	q	Q				
80+45	0.0000	0.54	q	Q				
80+50	0.0000	0.54	q	Q				
80+55	0.0000	0.54	q	Q				
81+ 0	0.0000	0.54	q	Q				
81+ 5	0.0000	0.53	q	Q				
81+10	0.0000	0.53	q	Q				
81+15	0.0000	0.53	q	Q				
81+20	0.0000	0.53	q	Q				
81+25	0.0000	0.53	q	Q				
81+30	0.0000	0.53	q	Q				
81+35	0.0000	0.53	q	Q				
81+40	0.0000	0.53	q	Q				
81+45	0.0000	0.53	q	Q				
81+50	0.0000	0.53	q	Q				
81+55	0.0000	0.53	q	Q				
82+ 0	0.0000	0.53	q	Q				
82+ 5	0.0000	0.53	q	Q				
82+10	0.0000	0.53	q	Q				
82+15	0.0000	0.53	q	Q				
82+20	0.0000	0.53	q	Q				
82+25	0.0000	0.53	q	Q				
82+30	0.0000	0.53	q	Q				
82+35	0.0000	0.53	q	Q				

82+40	0.0000	0.53	q	Q				
82+45	0.0000	0.52	q	Q				
82+50	0.0000	0.52	q	Q				
82+55	0.0000	0.52	q	Q				
83+ 0	0.0000	0.52	q	Q				
83+ 5	0.0000	0.52	q	Q				
83+10	0.0000	0.52	q	Q				
83+15	0.0000	0.52	q	Q				
83+20	0.0000	0.52	q	Q				
83+25	0.0000	0.52	q	Q				
83+30	0.0000	0.52	q	Q				
83+35	0.0000	0.52	q	Q				
83+40	0.0000	0.52	q	Q				
83+45	0.0000	0.52	q	Q				
83+50	0.0000	0.52	q	Q				
83+55	0.0000	0.52	q	Q				
84+ 0	0.0000	0.52	q	Q				
84+ 5	0.0000	0.52	q	Q				
84+10	0.0000	0.52	q	Q				
84+15	0.0000	0.52	q	Q				
84+20	0.0000	0.52	q	Q				
84+25	0.0000	0.52	q	Q				
84+30	0.0000	0.51	q	Q				
84+35	0.0000	0.51	q	Q				
84+40	0.0000	0.51	q	Q				
84+45	0.0000	0.51	q	Q				
84+50	0.0000	0.51	q	Q				
84+55	0.0000	0.51	q	Q				
85+ 0	0.0000	0.51	q	Q				
85+ 5	0.0000	0.51	q	Q				
85+10	0.0000	0.51	q	Q				
85+15	0.0000	0.51	q	Q				
85+20	0.0000	0.51	q	Q				
85+25	0.0000	0.51	q	Q				
85+30	0.0000	0.51	q	Q				
85+35	0.0000	0.51	q	Q				
85+40	0.0000	0.51	q	Q				
85+45	0.0000	0.51	q	Q				
85+50	0.0000	0.51	q	Q				
85+55	0.0000	0.51	q	Q				
86+ 0	0.0000	0.51	q	Q				
86+ 5	0.0000	0.51	q	Q				
86+10	0.0000	0.50	q	Q				
86+15	0.0000	0.50	q	Q				
86+20	0.0000	0.50	q	Q				
86+25	0.0000	0.50	q	Q				
86+30	0.0000	0.50	q	Q				
86+35	0.0000	0.50	q	Q				
86+40	0.0000	0.50	q	Q				
86+45	0.0000	0.50	q	Q				
86+50	0.0000	0.50	q	Q				
86+55	0.0000	0.50	q	Q				
87+ 0	0.0000	0.50	q	Q				
87+ 5	0.0000	0.50	q	Q				

87+10	0.0000	0.50	q	Q				
87+15	0.0000	0.50	q	Q				
87+20	0.0000	0.50	q	Q				
87+25	0.0000	0.50	q	Q				
87+30	0.0000	0.49	q	Q				
87+35	0.0000	0.49	q	Q				
87+40	0.0000	0.49	q	Q				
87+45	0.0000	0.49	q	Q				
87+50	0.0000	0.49	q	Q				
87+55	0.0000	0.49	q	Q				
88+ 0	0.0000	0.49	q	Q				
88+ 5	0.0000	0.49	q	Q				
88+10	0.0000	0.49	q	Q				
88+15	0.0000	0.49	q	Q				
88+20	0.0000	0.48	q	Q				
88+25	0.0000	0.48	q	Q				
88+30	0.0000	0.48	q	Q				
88+35	0.0000	0.48	q	Q				
88+40	0.0000	0.48	q	Q				
88+45	0.0000	0.48	q	Q				
88+50	0.0000	0.48	q	Q				
88+55	0.0000	0.48	q	Q				
89+ 0	0.0000	0.48	q	Q				
89+ 5	0.0000	0.48	q	Q				
89+10	0.0000	0.47	q	Q				
89+15	0.0000	0.47	q	Q				
89+20	0.0000	0.47	q	Q				
89+25	0.0000	0.47	q	Q				
89+30	0.0000	0.47	q	Q				
89+35	0.0000	0.47	q	Q				
89+40	0.0000	0.47	q	Q				
89+45	0.0000	0.47	q	Q				
89+50	0.0000	0.47	q	Q				
89+55	0.0000	0.47	q	Q				
90+ 0	0.0000	0.47	q	Q				
90+ 5	0.0000	0.46	q	Q				
90+10	0.0000	0.46	q	Q				
90+15	0.0000	0.46	q	Q				
90+20	0.0000	0.46	q	Q				
90+25	0.0000	0.46	q	Q				
90+30	0.0000	0.46	q	Q				
90+35	0.0000	0.46	q	Q				
90+40	0.0000	0.46	q	Q				
90+45	0.0000	0.46	q	Q				
90+50	0.0000	0.46	q	Q				
90+55	0.0000	0.45	q	Q				
91+ 0	0.0000	0.45	q	Q				
91+ 5	0.0000	0.45	q	Q				
91+10	0.0000	0.45	q	Q				
91+15	0.0000	0.45	q	Q				
91+20	0.0000	0.45	q	Q				
91+25	0.0000	0.45	q	Q				
91+30	0.0000	0.45	q	Q				
91+35	0.0000	0.45	q	Q				

91+40	0.0000	0.45	q	Q				
91+45	0.0000	0.45	q	Q				
91+50	0.0000	0.44	q	Q				
91+55	0.0000	0.44	q	Q				
92+ 0	0.0000	0.44	q	Q				
92+ 5	0.0000	0.44	q	Q				
92+10	0.0000	0.44	q	Q				
92+15	0.0000	0.44	q	Q				
92+20	0.0000	0.44	q	Q				
92+25	0.0000	0.44	q	Q				
92+30	0.0000	0.44	q	Q				
92+35	0.0000	0.44	q	Q				
92+40	0.0000	0.44	q	Q				
92+45	0.0000	0.43	q	Q				
92+50	0.0000	0.43	q	Q				
92+55	0.0000	0.43	q	Q				
93+ 0	0.0000	0.43	q	Q				
93+ 5	0.0000	0.43	q	Q				
93+10	0.0000	0.43	q	Q				
93+15	0.0000	0.43	q	Q				
93+20	0.0000	0.43	q	Q				
93+25	0.0000	0.43	q	Q				
93+30	0.0000	0.43	q	Q				
93+35	0.0000	0.43	q	Q				
93+40	0.0000	0.43	q	Q				
93+45	0.0000	0.42	q	Q				
93+50	0.0000	0.42	q	Q				
93+55	0.0000	0.42	q	Q				
94+ 0	0.0000	0.42	q	Q				
94+ 5	0.0000	0.42	q	Q				
94+10	0.0000	0.42	q	Q				
94+15	0.0000	0.42	q	Q				
94+20	0.0000	0.42	q	Q				
94+25	0.0000	0.42	q	Q				
94+30	0.0000	0.42	q	Q				
94+35	0.0000	0.42	q	Q				
94+40	0.0000	0.41	q	Q				
94+45	0.0000	0.41	q	Q				
94+50	0.0000	0.41	q	Q				
94+55	0.0000	0.41	q	Q				
95+ 0	0.0000	0.41	q	Q				
95+ 5	0.0000	0.41	q	Q				
95+10	0.0000	0.41	q	Q				
95+15	0.0000	0.41	q	Q				
95+20	0.0000	0.41	q	Q				
95+25	0.0000	0.41	q	Q				
95+30	0.0000	0.41	q	Q				
95+35	0.0000	0.41	q	Q				
95+40	0.0000	0.40	q	Q				
95+45	0.0000	0.40	q	Q				
95+50	0.0000	0.40	q	Q				
95+55	0.0000	0.40	q	Q				
96+ 0	0.0000	0.40	q	Q				
96+ 5	0.0000	0.40	q	Q				

96+10	0.0000	0.40	q	Q				
96+15	0.0000	0.40	q	Q				
96+20	0.0000	0.40	q	Q				
96+25	0.0000	0.40	q	Q				
96+30	0.0000	0.40	q	Q				
96+35	0.0000	0.40	q	Q				
96+40	0.0000	0.40	q	Q				
96+45	0.0000	0.39	q	Q				
96+50	0.0000	0.39	q	Q				
96+55	0.0000	0.39	q	Q				
97+ 0	0.0000	0.39	q	Q				
97+ 5	0.0000	0.39	q	Q				
97+10	0.0000	0.39	q	Q				
97+15	0.0000	0.39	q	Q				
97+20	0.0000	0.39	q	Q				
97+25	0.0000	0.39	q	Q				
97+30	0.0000	0.39	q	Q				
97+35	0.0000	0.39	q	Q				
97+40	0.0000	0.39	q	Q				
97+45	0.0000	0.38	q	Q				
97+50	0.0000	0.38	q	Q				
97+55	0.0000	0.38	q	Q				
98+ 0	0.0000	0.38	q	Q				
98+ 5	0.0000	0.38	q	Q				
98+10	0.0000	0.38	q	Q				
98+15	0.0000	0.38	q	Q				
98+20	0.0000	0.38	q	Q				
98+25	0.0000	0.38	q	Q				
98+30	0.0000	0.38	q	Q				
98+35	0.0000	0.38	q	Q				
98+40	0.0000	0.38	q	Q				
98+45	0.0000	0.38	q	Q				
98+50	0.0000	0.37	q	Q				
98+55	0.0000	0.37	q	Q				
99+ 0	0.0000	0.37	q	Q				
99+ 5	0.0000	0.37	q	Q				
99+10	0.0000	0.37	q	Q				
99+15	0.0000	0.37	q	Q				
99+20	0.0000	0.37	q	Q				
99+25	0.0000	0.37	q	Q				
99+30	0.0000	0.37	q	Q				
99+35	0.0000	0.37	q	Q				
99+40	0.0000	0.37	q	Q				
99+45	0.0000	0.37	q	Q				
99+50	0.0000	0.37	q	Q				
99+55	0.0000	0.36	q	Q				
100+ 0	0.0000	0.36	q	Q				
100+ 5	0.0000	0.36	q	Q				
100+10	0.0000	0.36	q	Q				
100+15	0.0000	0.36	q	Q				
100+20	0.0000	0.36	q	Q				
100+25	0.0000	0.36	q	Q				
100+30	0.0000	0.36	q	Q				
100+35	0.0000	0.36	q	Q				

100+40	0.0000	0.36	q	Q				
100+45	0.0000	0.36	q	Q				
100+50	0.0000	0.36	q	Q				
100+55	0.0000	0.36	q	Q				
101+ 0	0.0000	0.36	q	Q				
101+ 5	0.0000	0.35	q	Q				
101+10	0.0000	0.35	q	Q				
101+15	0.0000	0.35	q	Q				
101+20	0.0000	0.35	q	Q				
101+25	0.0000	0.35	q	Q				
101+30	0.0000	0.35	q	Q				
101+35	0.0000	0.35	q	Q				
101+40	0.0000	0.35	q	Q				
101+45	0.0000	0.35	q	Q				
101+50	0.0000	0.35	q	Q				
101+55	0.0000	0.35	q	Q				
102+ 0	0.0000	0.35	q	Q				
102+ 5	0.0000	0.35	q	Q				
102+10	0.0000	0.35	q	Q				
102+15	0.0000	0.34	q	Q				
102+20	0.0000	0.34	q	Q				
102+25	0.0000	0.34	q	Q				
102+30	0.0000	0.34	q	Q				
102+35	0.0000	0.34	q	Q				
102+40	0.0000	0.34	q	Q				
102+45	0.0000	0.34	q	Q				
102+50	0.0000	0.34	q	Q				
102+55	0.0000	0.34	q	Q				
103+ 0	0.0000	0.33	q	Q				
103+ 5	0.0000	0.33	q	Q				
103+10	0.0000	0.33	q	Q				
103+15	0.0000	0.33	q	Q				
103+20	0.0000	0.33	q	Q				
103+25	0.0000	0.32	q	Q				
103+30	0.0000	0.32	q	Q				
103+35	0.0000	0.32	q	Q				
103+40	0.0000	0.32	q	Q				
103+45	0.0000	0.31	q	Q				
103+50	0.0000	0.31	q	Q				
103+55	0.0000	0.31	q	Q				
104+ 0	0.0000	0.31	q	Q				
104+ 5	0.0000	0.31	q	Q				
104+10	0.0000	0.30	q	Q				
104+15	0.0000	0.30	q	Q				
104+20	0.0000	0.30	q	Q				
104+25	0.0000	0.30	q	Q				
104+30	0.0000	0.30	q	Q				
104+35	0.0000	0.29	q	Q				
104+40	0.0000	0.29	q	Q				
104+45	0.0000	0.29	q	Q				
104+50	0.0000	0.29	q	Q				
104+55	0.0000	0.29	q	Q				
105+ 0	0.0000	0.28	q	Q				
105+ 5	0.0000	0.28	q	Q				

105+10	0.0000	0.28	q	Q			
105+15	0.0000	0.28	q	Q			
105+20	0.0000	0.28	q	Q			
105+25	0.0000	0.27	q	Q			
105+30	0.0000	0.27	q	Q			
105+35	0.0000	0.27	q	Q			
105+40	0.0000	0.27	q	Q			
105+45	0.0000	0.27	q	Q			
105+50	0.0000	0.26	q	Q			
105+55	0.0000	0.26	q	Q			
106+ 0	0.0000	0.26	q	Q			
106+ 5	0.0000	0.26	q	Q			
106+10	0.0000	0.26	q	Q			
106+15	0.0000	0.26	q	Q			
106+20	0.0000	0.25	q	Q			
106+25	0.0000	0.25	q	Q			
106+30	0.0000	0.25	q	Q			
106+35	0.0000	0.25	q	Q			
106+40	0.0000	0.25	q	Q			
106+45	0.0000	0.25	q	Q			
106+50	0.0000	0.24	q	Q			
106+55	0.0000	0.24	q	Q			
107+ 0	0.0000	0.24	q	Q			
107+ 5	0.0000	0.24	q	Q			
107+10	0.0000	0.24	q	Q			
107+15	0.0000	0.24	q	Q			
107+20	0.0000	0.23	q	Q			
107+25	0.0000	0.23	q	Q			
107+30	0.0000	0.23	q	Q			
107+35	0.0000	0.23	q	Q			
107+40	0.0000	0.23	q	Q			
107+45	0.0000	0.23	q	Q			
107+50	0.0000	0.22	q	Q			
107+55	0.0000	0.22	q	Q			
108+ 0	0.0000	0.22	q	Q			
108+ 5	0.0000	0.22	q	Q			
108+10	0.0000	0.22	q	Q			
108+15	0.0000	0.22	q	Q			
108+20	0.0000	0.22	q	Q			
108+25	0.0000	0.21	q	Q			
108+30	0.0000	0.21	q	Q			
108+35	0.0000	0.21	q	Q			
108+40	0.0000	0.21	q	Q			
108+45	0.0000	0.21	q	Q			
108+50	0.0000	0.21	q	Q			
108+55	0.0000	0.21	q	Q			
109+ 0	0.0000	0.20	q	Q			
109+ 5	0.0000	0.20	q	Q			
109+10	0.0000	0.20	q	Q			
109+15	0.0000	0.20	q	Q			
109+20	0.0000	0.20	q	Q			
109+25	0.0000	0.20	q	Q			
109+30	0.0000	0.20	q	Q			
109+35	0.0000	0.19	q	Q			

109+40	0.0000	0.19	q Q				
109+45	0.0000	0.19	q Q				
109+50	0.0000	0.19	q Q				
109+55	0.0000	0.19	q Q				
110+ 0	0.0000	0.19	q Q				
110+ 5	0.0000	0.19	q Q				
110+10	0.0000	0.18	q Q				
110+15	0.0000	0.18	q Q				
110+20	0.0000	0.18	q Q				
110+25	0.0000	0.18	q Q				
110+30	0.0000	0.18	q Q				
110+35	0.0000	0.17	q Q				
110+40	0.0000	0.17	q Q				
110+45	0.0000	0.16	q Q				
110+50	0.0000	0.16	q Q				
110+55	0.0000	0.15	q Q				
111+ 0	0.0000	0.15	q Q				
111+ 5	0.0000	0.14	q Q				
111+10	0.0000	0.14	q Q				
111+15	0.0000	0.14	qQ				
111+20	0.0000	0.13	qQ				
111+25	0.0000	0.13	qQ				
111+30	0.0000	0.12	qQ				
111+35	0.0000	0.12	qQ				
111+40	0.0000	0.12	qQ				
111+45	0.0000	0.11	qQ				
111+50	0.0000	0.11	qQ				
111+55	0.0000	0.11	qQ				
112+ 0	0.0000	0.10	qQ				
112+ 5	0.0000	0.10	qQ				
112+10	0.0000	0.10	qQ				
112+15	0.0000	0.09	qQ				
112+20	0.0000	0.09	qQ				
112+25	0.0000	0.09	qQ				
112+30	0.0000	0.09	qQ				
112+35	0.0000	0.08	qQ				
112+40	0.0000	0.08	qQ				
112+45	0.0000	0.08	qQ				
112+50	0.0000	0.08	qQ				
112+55	0.0000	0.07	qQ				
113+ 0	0.0000	0.07	qQ				
113+ 5	0.0000	0.07	Q				
113+10	0.0000	0.07	Q				
113+15	0.0000	0.06	Q				
113+20	0.0000	0.06	Q				
113+25	0.0000	0.06	Q				
113+30	0.0000	0.06	Q				
113+35	0.0000	0.06	Q				
113+40	0.0000	0.06	Q				
113+45	0.0000	0.05	Q				
113+50	0.0000	0.05	Q				
113+55	0.0000	0.05	Q				
114+ 0	0.0000	0.05	Q				
114+ 5	0.0000	0.05	Q				

114+10	0.0000	0.05	Q				
114+15	0.0000	0.04	Q				
114+20	0.0000	0.04	Q				
114+25	0.0000	0.04	Q				
114+30	0.0000	0.04	Q				
114+35	0.0000	0.04	Q				
114+40	0.0000	0.04	Q				
114+45	0.0000	0.04	Q				
114+50	0.0000	0.04	Q				
114+55	0.0000	0.03	Q				
115+ 0	0.0000	0.03	Q				
115+ 5	0.0000	0.03	Q				
115+10	0.0000	0.03	Q				
115+15	0.0000	0.03	Q				
115+20	0.0000	0.03	Q				
115+25	0.0000	0.03	Q				
115+30	0.0000	0.03	Q				
115+35	0.0000	0.03	Q				
115+40	0.0000	0.03	Q				
115+45	0.0000	0.03	Q				
115+50	0.0000	0.02	Q				
115+55	0.0000	0.02	Q				
116+ 0	0.0000	0.02	Q				
116+ 5	0.0000	0.02	Q				
116+10	0.0000	0.02	Q				
116+15	0.0000	0.02	Q				
116+20	0.0000	0.02	Q				
116+25	0.0000	0.02	Q				
116+30	0.0000	0.02	Q				
116+35	0.0000	0.02	Q				
116+40	0.0000	0.02	Q				
116+45	0.0000	0.02	Q				
116+50	0.0000	0.02	Q				
116+55	0.0000	0.02	Q				
117+ 0	0.0000	0.02	Q				
117+ 5	0.0000	0.02	Q				
117+10	0.0000	0.02	Q				
117+15	0.0000	0.01	Q				
117+20	0.0000	0.01	Q				
117+25	0.0000	0.01	Q				
117+30	0.0000	0.01	Q				
117+35	0.0000	0.01	Q				
117+40	0.0000	0.01	Q				
117+45	0.0000	0.01	Q				
117+50	0.0000	0.01	Q				
117+55	0.0000	0.01	Q				
118+ 0	0.0000	0.01	Q				
118+ 5	0.0000	0.01	Q				
118+10	0.0000	0.01	Q				
118+15	0.0000	0.01	Q				
118+20	0.0000	0.01	Q				
118+25	0.0000	0.01	Q				
118+30	0.0000	0.01	Q				
118+35	0.0000	0.01	Q				

118+40	0.0000	0.01	Q				
118+45	0.0000	0.01	Q				
118+50	0.0000	0.01	Q				
118+55	0.0000	0.01	Q				
119+ 0	0.0000	0.01	Q				
119+ 5	0.0000	0.01	Q				
119+10	0.0000	0.01	Q				
119+15	0.0000	0.01	Q				
119+20	0.0000	0.01	Q				
119+25	0.0000	0.01	Q				
119+30	0.0000	0.01	Q				
119+35	0.0000	0.01	Q				
119+40	0.0000	0.01	Q				
119+45	0.0000	0.01	Q				
119+50	0.0000	0.01	Q				
119+55	0.0000	0.01	Q				
120+ 0	0.0000	0.01	Q				
120+ 5	0.0000	0.01	Q				
120+10	0.0000	0.00	Q				
120+15	0.0000	0.00	Q				
120+20	0.0000	0.00	Q				
120+25	0.0000	0.00	Q				
120+30	0.0000	0.00	Q				
120+35	0.0000	0.00	Q				
120+40	0.0000	0.00	Q				
120+45	0.0000	0.00	Q				
120+50	0.0000	0.00	Q				
120+55	0.0000	0.00	Q				
121+ 0	0.0000	0.00	Q				
121+ 5	0.0000	0.00	Q				
121+10	0.0000	0.00	Q				
121+15	0.0000	0.00	Q				
121+20	0.0000	0.00	Q				
121+25	0.0000	0.00	Q				
121+30	0.0000	0.00	Q				
121+35	0.0000	0.00	Q				
121+40	0.0000	0.00	Q				
121+45	0.0000	0.00	Q				
121+50	0.0000	0.00	Q				
121+55	0.0000	0.00	Q				
122+ 0	0.0000	0.00	Q				
122+ 5	0.0000	0.00	Q				
122+10	0.0000	0.00	Q				
122+15	0.0000	0.00	Q				
122+20	0.0000	0.00	Q				
122+25	0.0000	0.00	Q				
122+30	0.0000	0.00	Q				
122+35	0.0000	0.00	Q				
122+40	0.0000	0.00	Q				
122+45	0.0000	0.00	Q				
122+50	0.0000	0.00	Q				
122+55	0.0000	0.00	Q				
123+ 0	0.0000	0.00	Q				
123+ 5	0.0000	0.00	Q				

```
 123+10        0.0000       0.00  Q          |          |          |          |
 123+15        0.0000       0.00  Q          |          |          |          |
 123+20        0.0000       0.00  Q          |          |          |          |
 123+25        0.0000       0.00  Q          |          |          |          |
 123+30        0.0000       0.00  Q          |          |          |          |
 123+35        0.0000       0.00  Q          |          |          |          |
 123+40        0.0000       0.00  Q          |          |          |          |
 123+45        0.0000       0.00  Q          |          |          |          |
 123+50        0.0000       0.00  Q          |          |          |          |
 123+55        0.0000       0.00  Q          |          |          |          |
 124+ 0        0.0000       0.00  Q          |          |          |          |
 124+ 5        0.0000       0.00  Q          |          |          |          |
 124+10        0.0000       0.00  Q          |          |          |          |
 124+15        0.0000       0.00  Q          |          |          |          |
 124+20        0.0000       0.00  Q          |          |          |          |
 124+25        0.0000       0.00  Q          |          |          |          |
 124+30        0.0000       0.00  Q          |          |          |          |
----------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
                Number of intervals =  1494
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        2.766 (CFS)
                Total volume =       7.291 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)       0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     **********************************************************************

     ----------------------------------------------------------------------


     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
     Process from Point/Station        1.000 to Point/Station        2.000
     **** ADD/COMBINE/RECOVER HYDROGRAPHS ****
     ______________________________________________________________________
     ********************* HYDROGRAPH INFORMATION **********************

                From study/file name: 32786B3Nat242.rte
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                      P R I N T   O F   S T O R M
                   R u n o f f     H y d r o g r a p h
     ----------------------------------------------------------------------
                Hydrograph in   5   Minute intervals (CFS)

     ----------------------------------------------------------------------
  Time(h+m) Add q(CFS)  Tot. Q   0         0.7       1.4       2.1       2.8
  ---------------------------------------------------------------------
    0+ 5       0.0023      0.01  Q          |          |          |          |
    0+10       0.0060      0.05  Q          |          |          |          |
    0+15       0.0070      0.07  qQ         |          |          |          |
    0+20       0.0086      0.10  qQ         |          |          |          |
    0+25       0.0107      0.14  qQ         |          |          |          |
    0+30       0.0113      0.17  q Q        |          |          |          |
```

0+35	0.0115	0.20	q Q
0+40	0.0116	0.23	q Q
0+45	0.0117	0.25	q Q
0+50	0.0129	0.28	q Q
0+55	0.0147	0.31	q Q
1+ 0	0.0152	0.33	q Q
1+ 5	0.0143	0.33	q Q
1+10	0.0125	0.33	q Q
1+15	0.0121	0.33	q Q
1+20	0.0119	0.33	q Q
1+25	0.0118	0.33	q Q
1+30	0.0117	0.34	q Q
1+35	0.0117	0.34	q Q
1+40	0.0117	0.35	q Q
1+45	0.0117	0.35	q Q
1+50	0.0129	0.36	q Q
1+55	0.0147	0.38	q Q
2+ 0	0.0152	0.40	q Q
2+ 5	0.0154	0.40	q Q
2+10	0.0155	0.41	q Q
2+15	0.0156	0.42	q Q
2+20	0.0156	0.43	q Q
2+25	0.0156	0.44	q Q
2+30	0.0156	0.44	q Q
2+35	0.0168	0.46	q Q
2+40	0.0186	0.48	q Q
2+45	0.0191	0.49	q Q
2+50	0.0193	0.51	q Q
2+55	0.0194	0.52	q Q
3+ 0	0.0195	0.52	q Q
3+ 5	0.0195	0.53	q Q
3+10	0.0195	0.53	q Q
3+15	0.0195	0.53	q Q
3+20	0.0195	0.53	q Q
3+25	0.0195	0.54	q Q
3+30	0.0195	0.54	q Q
3+35	0.0195	0.54	q Q
3+40	0.0195	0.54	q Q
3+45	0.0195	0.55	q Q
3+50	0.0207	0.55	q Q
3+55	0.0225	0.57	q Q
4+ 0	0.0230	0.58	q Q
4+ 5	0.0232	0.59	q Q
4+10	0.0233	0.59	q Q
4+15	0.0234	0.60	q Q
4+20	0.0246	0.61	q Q
4+25	0.0264	0.63	q Q
4+30	0.0269	0.64	q Q
4+35	0.0271	0.65	q Q
4+40	0.0272	0.65	q Q
4+45	0.0273	0.66	q Q
4+50	0.0285	0.67	q Q
4+55	0.0303	0.69	q Q
5+ 0	0.0308	0.70	q Q

```
5+ 5      0.0287     0.70  q        Q|         |         |         |
5+10      0.0251     0.67  q        Q|         |         |         |
5+15      0.0242     0.66  q        Q|         |         |         |
5+20      0.0249     0.66  q        Q|         |         |         |
5+25      0.0266     0.68  q        Q|         |         |         |
5+30      0.0269     0.69  q        Q|         |         |         |
5+35      0.0283     0.70  q        Q|         |         |         |
5+40      0.0302     0.72  q         Q         |         |         |
5+45      0.0308     0.73  q         Q         |         |         |
5+50      0.0310     0.74  q         Q         |         |         |
5+55      0.0311     0.74  q         Q         |         |         |
6+ 0      0.0312     0.75  q         Q         |         |         |
6+ 5      0.0324     0.76  q         Q         |         |         |
6+10      0.0342     0.78  q         Q         |         |         |
6+15      0.0347     0.79  q         |Q        |         |         |
6+20      0.0349     0.80  q         |Q        |         |         |
6+25      0.0350     0.81  q         |Q        |         |         |
6+30      0.0351     0.81  q         |Q        |         |         |
6+35      0.0363     0.83  q         |Q        |         |         |
6+40      0.0381     0.85  q         |Q        |         |         |
6+45      0.0386     0.86  q         | Q       |         |         |
6+50      0.0388     0.86  q         | Q       |         |         |
6+55      0.0389     0.87  q         | Q       |         |         |
7+ 0      0.0390     0.87  q         | Q       |         |         |
7+ 5      0.0390     0.88  q         | Q       |         |         |
7+10      0.0390     0.88  q         | Q       |         |         |
7+15      0.0390     0.88  q         | Q       |         |         |
7+20      0.0402     0.89  q         | Q       |         |         |
7+25      0.0420     0.91  q         | Q       |         |         |
7+30      0.0425     0.92  q         | Q       |         |         |
7+35      0.0439     0.93  q         |  Q      |         |         |
7+40      0.0459     0.95  q         |  Q      |         |         |
7+45      0.0464     0.96  q         |  Q      |         |         |
7+50      0.0478     0.97  q         |  Q      |         |         |
7+55      0.0498     0.99  q         |  Q      |         |         |
8+ 0      0.0503     1.01  q         |   Q     |         |         |
8+ 5      0.0528     1.02  q         |   Q     |         |         |
8+10      0.0567     1.06  q         |   Q     |         |         |
8+15      0.0577     1.08  q         |    Q    |         |         |
8+20      0.0581     1.09  q         |    Q    |         |         |
8+25      0.0583     1.10  q         |    Q    |         |         |
8+30      0.0585     1.11  q         |    Q    |         |         |
8+35      0.0597     1.12  q         |    Q    |         |         |
8+40      0.0615     1.14  q         |     Q   |         |         |
8+45      0.0620     1.15  q         |     Q   |         |         |
8+50      0.0634     1.16  q         |     Q   |         |         |
8+55      0.0654     1.19  q         |     Q   |         |         |
9+ 0      0.0659     1.20  q         |     Q   |         |         |
9+ 5      0.0684     1.22  q         |      Q  |         |         |
9+10      0.0723     1.26  |q        |      Q  |         |         |
9+15      0.0733     1.28  |q        |      Q  |         |         |
9+20      0.0749     1.29  |q        |       Q |         |         |
9+25      0.0770     1.32  |q        |       Q |         |         |
9+30      0.0776     1.33  |q        |       Q |         |         |
```

```
 9+35        0.0790       1.35  |q         |        Q |          |          |
 9+40        0.0810       1.37  |q         |         Q|          |          |
 9+45        0.0815       1.39  |q         |         Q|          |          |
 9+50        0.0829       1.40  |q         |         Q|          |          |
 9+55        0.0849       1.42  |q         |          Q          |          |
10+ 0        0.0854       1.44  |q         |          Q          |          |
10+ 5        0.0776       1.41  |q         |         Q|          |          |
10+10        0.0646       1.31  q          |        Q |          |          |
10+15        0.0614       1.26  q          |       Q  |          |          |
10+20        0.0599       1.24  q          |       Q  |          |          |
10+25        0.0591       1.24  q          |       Q  |          |          |
10+30        0.0585       1.23  q          |       Q  |          |          |
10+35        0.0643       1.25  q          |       Q  |          |          |
10+40        0.0736       1.33  |q         |        Q |          |          |
10+45        0.0760       1.37  |q         |         Q|          |          |
10+50        0.0770       1.39  |q         |         Q|          |          |
10+55        0.0776       1.40  |q         |         Q|          |          |
11+ 0        0.0780       1.41  |q         |         Q|          |          |
11+ 5        0.0769       1.41  |q         |         Q|          |          |
11+10        0.0750       1.40  |q         |         Q|          |          |
11+15        0.0745       1.40  |q         |         Q|          |          |
11+20        0.0743       1.40  |q         |         Q|          |          |
11+25        0.0742       1.40  |q         |         Q|          |          |
11+30        0.0741       1.41  |q         |         Q|          |          |
11+35        0.0718       1.40  |q         |         Q|          |          |
11+40        0.0681       1.37  q          |         Q|          |          |
11+45        0.0671       1.36  q          |         Q|          |          |
11+50        0.0679       1.36  q          |         Q|          |          |
11+55        0.0695       1.37  q          |         Q|          |          |
12+ 0        0.0698       1.38  q          |         Q|          |          |
12+ 5        0.0781       1.42  |q         |         Q|          |          |
12+10        0.0913       1.53  |q         |          |Q         |          |
12+15        0.0947       1.59  |q         |          | Q        |          |
12+20        0.0973       1.62  |q         |          | Q        |          |
12+25        0.1000       1.65  |q         |          |  Q       |          |
12+30        0.1010       1.67  |q         |          |  Q       |          |
12+35        0.1035       1.69  |q         |          |  Q       |          |
12+40        0.1074       1.73  |q         |          |   Q      |          |
12+45        0.1084       1.76  |q         |          |   Q      |          |
12+50        0.1100       1.78  |q         |          |    Q     |          |
12+55        0.1121       1.80  |q         |          |    Q     |          |
13+ 0        0.1127       1.82  |q         |          |    Q     |          |
13+ 5        0.1187       1.85  |q         |          |     Q    |          |
13+10        0.1282       1.94  |q         |          |      Q   |          |
13+15        0.1306       1.98  |q         |          |      Q   |          |
13+20        0.1317       2.01  |q         |          |       Q  |          |
13+25        0.1322       2.06  |q         |          |        Q|          |
13+30        0.1326       2.10  |q         |          |        Q|          |
13+35        0.1200       2.09  |q         |          |        Q|          |
13+40        0.0994       1.96  |q         |          |      Q   |          |
13+45        0.0942       1.91  |q         |          |     Q    |          |
13+50        0.0919       1.91  |q         |          |     Q    |          |
13+55        0.0906       1.93  |q         |          |      Q   |          |
14+ 0        0.0897       1.96  |q         |          |      Q   |          |
```

```
14+ 5      0.0943     2.01  |q        |         |        Q |         |
14+10      0.1018     2.10  |q        |         |         Q|         |
14+15      0.1037     2.17  |q        |         |          Q         |
14+20      0.1034     2.22  |q        |         |          |Q        |
14+25      0.1020     2.25  |q        |         |          |Q        |
14+30      0.1018     2.29  |q        |         |          | Q       |
14+35      0.1016     2.33  |q        |         |          | Q       |
14+40      0.1015     2.37  |q        |         |          |  Q      |
14+45      0.1014     2.41  |q        |         |          |  Q      |
14+50      0.1003     2.45  |q        |         |          |   Q     |
14+55      0.0984     2.47  |q        |         |          |   Q     |
15+ 0      0.0979     2.50  |q        |         |          |    Q    |
15+ 5      0.0966     2.53  |q        |         |          |    Q    |
15+10      0.0946     2.56  |q        |         |          |     Q   |
15+15      0.0940     2.61  |q        |         |          |     Q   |
15+20      0.0927     2.66  |q        |         |          |      Q  |
15+25      0.0907     2.69  |q        |         |          |      Q  |
15+30      0.0901     2.73  |q        |         |          |       Q |
15+35      0.0853     2.76  |q        |         |          |       Q |
15+40      0.0777     2.74  |q        |         |          |       Q |
15+45      0.0757     2.75  |q        |         |          |       Q |
15+50      0.0749     2.78  |q        |         |          |        Q|
15+55      0.0745     2.81  |q        |         |          |        Q|
16+ 0      0.0741     2.84  |q        |         |          |         Q
16+ 5      0.0569     2.80  q         |         |          |        Q|
16+10      0.0288     2.59  q         |         |          |     Q   |
16+15      0.0217     2.48  q         |         |          |   Q     |
16+20      0.0186     2.43  q         |         |          |   Q     |
16+25      0.0168     2.40  q         |         |          |  Q      |
16+30      0.0156     2.38  q         |         |          |  Q      |
16+35      0.0145     2.36  q         |         |          |  Q      |
16+40      0.0126     2.33  q         |         |          | Q       |
16+45      0.0121     2.30  q         |         |          | Q       |
16+50      0.0119     2.29  q         |         |          | Q       |
16+55      0.0118     2.27  q         |         |          |Q        |
17+ 0      0.0117     2.26  q         |         |          |Q        |
17+ 5      0.0140     2.26  q         |         |          |Q        |
17+10      0.0177     2.28  q         |         |          | Q       |
17+15      0.0187     2.29  q         |         |          | Q       |
17+20      0.0191     2.29  q         |         |          | Q       |
17+25      0.0193     2.28  q         |         |          | Q       |
17+30      0.0195     2.28  q         |         |          | Q       |
17+35      0.0195     2.28  q         |         |          | Q       |
17+40      0.0195     2.27  q         |         |          | Q       |
17+45      0.0195     2.27  q         |         |          |Q        |
17+50      0.0184     2.26  q         |         |          |Q        |
17+55      0.0165     2.24  q         |         |          |Q        |
18+ 0      0.0160     2.23  q         |         |          |Q        |
18+ 5      0.0158     2.22  q         |         |          |Q        |
18+10      0.0157     2.21  q         |         |          |Q        |
18+15      0.0156     2.20  q         |         |          |Q        |
18+20      0.0156     2.19  q         |         |         Q         |
18+25      0.0156     2.19  q         |         |         Q         |
18+30      0.0156     2.18  q         |         |         Q         |
```

18+35	0.0145	2.17	q	
18+40	0.0126	2.14	q	
18+45	0.0121	2.13	q	
18+50	0.0107	2.11	q	
18+55	0.0088	2.08	q	
19+ 0	0.0082	2.06	q	
19+ 5	0.0091	2.05	q	
19+10	0.0109	2.06	q	
19+15	0.0113	2.05	q	
19+20	0.0127	2.05	q	
19+25	0.0146	2.06	q	
19+30	0.0152	2.06	q	
19+35	0.0143	2.05	q	
19+40	0.0125	2.03	q	
19+45	0.0121	2.02	q	
19+50	0.0107	2.00	q	
19+55	0.0088	1.98	q	
20+ 0	0.0082	1.96	q	
20+ 5	0.0091	1.95	q	
20+10	0.0109	1.95	q	
20+15	0.0113	1.95	q	
20+20	0.0115	1.94	q	
20+25	0.0116	1.94	q	
20+30	0.0117	1.93	q	
20+35	0.0117	1.92	q	
20+40	0.0117	1.91	q	
20+45	0.0117	1.91	q	
20+50	0.0106	1.89	q	
20+55	0.0087	1.87	q	
21+ 0	0.0082	1.85	q	
21+ 5	0.0091	1.85	q	
21+10	0.0109	1.85	q	
21+15	0.0113	1.85	q	
21+20	0.0104	1.84	q	
21+25	0.0086	1.82	q	
21+30	0.0082	1.80	q	
21+35	0.0091	1.79	q	
21+40	0.0109	1.80	q	
21+45	0.0113	1.80	q	
21+50	0.0104	1.79	q	
21+55	0.0086	1.77	q	
22+ 0	0.0082	1.75	q	
22+ 5	0.0091	1.74	q	
22+10	0.0109	1.75	q	
22+15	0.0113	1.75	q	
22+20	0.0104	1.74	q	
22+25	0.0086	1.72	q	
22+30	0.0082	1.71	q	
22+35	0.0080	1.70	q	
22+40	0.0079	1.69	q	
22+45	0.0078	1.69	q	
22+50	0.0078	1.68	q	
22+55	0.0078	1.68	q	
23+ 0	0.0078	1.67	q	

```
23+ 5      0.0078     1.66  q          |          |  Q      |          |
23+10      0.0078     1.66  q          |          |  Q      |          |
23+15      0.0078     1.65  q          |          |  Q      |          |
23+20      0.0078     1.65  q          |          |  Q      |          |
23+25      0.0078     1.64  q          |          |  Q      |          |
23+30      0.0078     1.64  q          |          |  Q      |          |
23+35      0.0078     1.63  q          |          | Q       |          |
23+40      0.0078     1.62  q          |          | Q       |          |
23+45      0.0078     1.62  q          |          | Q       |          |
23+50      0.0078     1.61  q          |          | Q       |          |
23+55      0.0078     1.61  q          |          | Q       |          |
24+ 0      0.0078     1.60  q          |          | Q       |          |
24+ 5      0.0055     1.59  q          |          | Q       |          |
24+10      0.0018     1.55  q          |          |Q        |          |
24+15      0.0008     1.53  q          |          |Q        |          |
24+20      0.0004     1.51  q          |          |Q        |          |
24+25      0.0002     1.50  q          |          |Q        |          |
24+30      0.0000     1.49  q          |          Q         |          |
24+35      0.0000     1.48  q          |          Q         |          |
24+40      0.0000     1.47  q          |          Q         |          |
24+45      0.0000     1.46  q          |          Q         |          |
24+50      0.0000     1.45  q          |          Q         |          |
24+55      0.0000     1.44  q          |          Q         |          |
25+ 0      0.0000     1.43  q          |          Q         |          |
25+ 5      0.0000     1.43  q          |          Q         |          |
25+10      0.0000     1.42  q          |         Q|         |          |
25+15      0.0000     1.41  q          |         Q|         |          |
25+20      0.0000     1.40  q          |         Q|         |          |
25+25      0.0000     1.39  q          |         Q|         |          |
25+30      0.0000     1.38  q          |         Q|         |          |
25+35      0.0000     1.38  q          |         Q|         |          |
25+40      0.0000     1.37  q          |         Q|         |          |
25+45      0.0000     1.36  q          |         Q|         |          |
25+50      0.0000     1.35  q          |         Q|         |          |
25+55      0.0000     1.34  q          |        Q |         |          |
26+ 0      0.0000     1.33  q          |        Q |         |          |
26+ 5      0.0000     1.33  q          |        Q |         |          |
26+10      0.0000     1.32  q          |        Q |         |          |
26+15      0.0000     1.31  q          |        Q |         |          |
26+20      0.0000     1.30  q          |        Q |         |          |
26+25      0.0000     1.30  q          |        Q |         |          |
26+30      0.0000     1.29  q          |        Q |         |          |
26+35      0.0000     1.28  q          |        Q |         |          |
26+40      0.0000     1.27  q          |       Q  |         |          |
26+45      0.0000     1.27  q          |       Q  |         |          |
26+50      0.0000     1.26  q          |       Q  |         |          |
26+55      0.0000     1.25  q          |       Q  |         |          |
27+ 0      0.0000     1.24  q          |       Q  |         |          |
27+ 5      0.0000     1.24  q          |       Q  |         |          |
27+10      0.0000     1.23  q          |       Q  |         |          |
27+15      0.0000     1.22  q          |       Q  |         |          |
27+20      0.0000     1.21  q          |       Q  |         |          |
27+25      0.0000     1.21  q          |      Q   |         |          |
27+30      0.0000     1.20  q          |      Q   |         |          |
```

27+35	0.0000	1.19	q		Q		
27+40	0.0000	1.18	q		Q		
27+45	0.0000	1.18	q		Q		
27+50	0.0000	1.17	q		Q		
27+55	0.0000	1.16	q		Q		
28+ 0	0.0000	1.16	q		Q		
28+ 5	0.0000	1.15	q		Q		
28+10	0.0000	1.14	q		Q		
28+15	0.0000	1.14	q		Q		
28+20	0.0000	1.13	q		Q		
28+25	0.0000	1.12	q		Q		
28+30	0.0000	1.12	q		Q		
28+35	0.0000	1.11	q		Q		
28+40	0.0000	1.10	q		Q		
28+45	0.0000	1.10	q		Q		
28+50	0.0000	1.09	q		Q		
28+55	0.0000	1.08	q		Q		
29+ 0	0.0000	1.08	q		Q		
29+ 5	0.0000	1.07	q		Q		
29+10	0.0000	1.06	q		Q		
29+15	0.0000	1.06	q		Q		
29+20	0.0000	1.05	q		Q		
29+25	0.0000	1.05	q		Q		
29+30	0.0000	1.04	q		Q		
29+35	0.0000	1.03	q		Q		
29+40	0.0000	1.03	q		Q		
29+45	0.0000	1.02	q		Q		
29+50	0.0000	1.01	q		Q		
29+55	0.0000	1.01	q		Q		
30+ 0	0.0000	1.00	q		Q		
30+ 5	0.0000	1.00	q		Q		
30+10	0.0000	0.99	q		Q		
30+15	0.0000	0.99	q		Q		
30+20	0.0000	0.98	q		Q		
30+25	0.0000	0.98	q		Q		
30+30	0.0000	0.98	q		Q		
30+35	0.0000	0.97	q		Q		
30+40	0.0000	0.97	q		Q		
30+45	0.0000	0.96	q		Q		
30+50	0.0000	0.96	q		Q		
30+55	0.0000	0.96	q		Q		
31+ 0	0.0000	0.95	q		Q		
31+ 5	0.0000	0.95	q		Q		
31+10	0.0000	0.95	q		Q		
31+15	0.0000	0.94	q		Q		
31+20	0.0000	0.94	q		Q		
31+25	0.0000	0.94	q		Q		
31+30	0.0000	0.93	q		Q		
31+35	0.0000	0.93	q		Q		
31+40	0.0000	0.92	q		Q		
31+45	0.0000	0.92	q		Q		
31+50	0.0000	0.92	q		Q		
31+55	0.0000	0.91	q		Q		
32+ 0	0.0000	0.91	q		Q		

32+ 5	0.0000	0.91	q	Q			
32+10	0.0000	0.90	q	Q			
32+15	0.0000	0.90	q	Q			
32+20	0.0000	0.90	q	Q			
32+25	0.0000	0.89	q	Q			
32+30	0.0000	0.89	q	Q			
32+35	0.0000	0.89	q	Q			
32+40	0.0000	0.88	q	Q			
32+45	0.0000	0.88	q	Q			
32+50	0.0000	0.88	q	Q			
32+55	0.0000	0.87	q	Q			
33+ 0	0.0000	0.87	q	Q			
33+ 5	0.0000	0.87	q	Q			
33+10	0.0000	0.86	q	Q			
33+15	0.0000	0.86	q	Q			
33+20	0.0000	0.86	q	Q			
33+25	0.0000	0.85	q	Q			
33+30	0.0000	0.85	q	Q			
33+35	0.0000	0.85	q	Q			
33+40	0.0000	0.84	q	Q			
33+45	0.0000	0.84	q	Q			
33+50	0.0000	0.84	q	Q			
33+55	0.0000	0.83	q	Q			
34+ 0	0.0000	0.83	q	Q			
34+ 5	0.0000	0.83	q	Q			
34+10	0.0000	0.82	q	Q			
34+15	0.0000	0.82	q	Q			
34+20	0.0000	0.82	q	Q			
34+25	0.0000	0.81	q	Q			
34+30	0.0000	0.81	q	Q			
34+35	0.0000	0.81	q	Q			
34+40	0.0000	0.81	q	Q			
34+45	0.0000	0.80	q	Q			
34+50	0.0000	0.80	q	Q			
34+55	0.0000	0.80	q	Q			
35+ 0	0.0000	0.79	q	Q			
35+ 5	0.0000	0.79	q	Q			
35+10	0.0000	0.79	q	Q			
35+15	0.0000	0.79	q	Q			
35+20	0.0000	0.79	q	Q			
35+25	0.0000	0.79	q	Q			
35+30	0.0000	0.79	q	Q			
35+35	0.0000	0.79	q	Q			
35+40	0.0000	0.79	q	Q			
35+45	0.0000	0.79	q	Q			
35+50	0.0000	0.79	q	Q			
35+55	0.0000	0.79	q	Q			
36+ 0	0.0000	0.79	q	Q			
36+ 5	0.0000	0.79	q	Q			
36+10	0.0000	0.78	q	Q			
36+15	0.0000	0.78	q	Q			
36+20	0.0000	0.78	q	Q			
36+25	0.0000	0.78	q	Q			
36+30	0.0000	0.78	q	Q			

36+35	0.0000	0.78	q	|Q	|	|	|
36+40	0.0000	0.78	q	|Q	|	|	|
36+45	0.0000	0.78	q	|Q	|	|	|
36+50	0.0000	0.78	q	|Q	|	|	|
36+55	0.0000	0.78	q	Q	|	|	|
37+ 0	0.0000	0.78	q	Q	|	|	|
37+ 5	0.0000	0.78	q	Q	|	|	|
37+10	0.0000	0.78	q	Q	|	|	|
37+15	0.0000	0.78	q	Q	|	|	|
37+20	0.0000	0.78	q	Q	|	|	|
37+25	0.0000	0.78	q	Q	|	|	|
37+30	0.0000	0.78	q	Q	|	|	|
37+35	0.0000	0.78	q	Q	|	|	|
37+40	0.0000	0.78	q	Q	|	|	|
37+45	0.0000	0.78	q	Q	|	|	|
37+50	0.0000	0.78	q	Q	|	|	|
37+55	0.0000	0.78	q	Q	|	|	|
38+ 0	0.0000	0.78	q	Q	|	|	|
38+ 5	0.0000	0.78	q	Q	|	|	|
38+10	0.0000	0.77	q	Q	|	|	|
38+15	0.0000	0.77	q	Q	|	|	|
38+20	0.0000	0.77	q	Q	|	|	|
38+25	0.0000	0.77	q	Q	|	|	|
38+30	0.0000	0.77	q	Q	|	|	|
38+35	0.0000	0.77	q	Q	|	|	|
38+40	0.0000	0.77	q	Q	|	|	|
38+45	0.0000	0.77	q	Q	|	|	|
38+50	0.0000	0.77	q	Q	|	|	|
38+55	0.0000	0.77	q	Q	|	|	|
39+ 0	0.0000	0.77	q	Q	|	|	|
39+ 5	0.0000	0.77	q	Q	|	|	|
39+10	0.0000	0.77	q	Q	|	|	|
39+15	0.0000	0.77	q	Q	|	|	|
39+20	0.0000	0.77	q	Q	|	|	|
39+25	0.0000	0.77	q	Q	|	|	|
39+30	0.0000	0.77	q	Q	|	|	|
39+35	0.0000	0.77	q	Q	|	|	|
39+40	0.0000	0.77	q	Q	|	|	|
39+45	0.0000	0.77	q	Q	|	|	|
39+50	0.0000	0.77	q	Q	|	|	|
39+55	0.0000	0.77	q	Q	|	|	|
40+ 0	0.0000	0.77	q	Q	|	|	|
40+ 5	0.0000	0.77	q	Q	|	|	|
40+10	0.0000	0.76	q	Q	|	|	|
40+15	0.0000	0.76	q	Q	|	|	|
40+20	0.0000	0.76	q	Q	|	|	|
40+25	0.0000	0.76	q	Q	|	|	|
40+30	0.0000	0.76	q	Q	|	|	|
40+35	0.0000	0.76	q	Q	|	|	|
40+40	0.0000	0.76	q	Q	|	|	|
40+45	0.0000	0.76	q	Q	|	|	|
40+50	0.0000	0.76	q	Q	|	|	|
40+55	0.0000	0.76	q	Q	|	|	|
41+ 0	0.0000	0.76	q	Q	|	|	|

41+ 5	0.0000	0.76	q	Q			
41+10	0.0000	0.76	q	Q			
41+15	0.0000	0.76	q	Q			
41+20	0.0000	0.76	q	Q			
41+25	0.0000	0.76	q	Q			
41+30	0.0000	0.76	q	Q			
41+35	0.0000	0.76	q	Q			
41+40	0.0000	0.76	q	Q			
41+45	0.0000	0.76	q	Q			
41+50	0.0000	0.76	q	Q			
41+55	0.0000	0.76	q	Q			
42+ 0	0.0000	0.76	q	Q			
42+ 5	0.0000	0.76	q	Q			
42+10	0.0000	0.76	q	Q			
42+15	0.0000	0.75	q	Q			
42+20	0.0000	0.75	q	Q			
42+25	0.0000	0.75	q	Q			
42+30	0.0000	0.75	q	Q			
42+35	0.0000	0.75	q	Q			
42+40	0.0000	0.75	q	Q			
42+45	0.0000	0.75	q	Q			
42+50	0.0000	0.75	q	Q			
42+55	0.0000	0.75	q	Q			
43+ 0	0.0000	0.75	q	Q			
43+ 5	0.0000	0.75	q	Q			
43+10	0.0000	0.75	q	Q			
43+15	0.0000	0.75	q	Q			
43+20	0.0000	0.75	q	Q			
43+25	0.0000	0.75	q	Q			
43+30	0.0000	0.75	q	Q			
43+35	0.0000	0.75	q	Q			
43+40	0.0000	0.75	q	Q			
43+45	0.0000	0.75	q	Q			
43+50	0.0000	0.75	q	Q			
43+55	0.0000	0.75	q	Q			
44+ 0	0.0000	0.75	q	Q			
44+ 5	0.0000	0.75	q	Q			
44+10	0.0000	0.75	q	Q			
44+15	0.0000	0.75	q	Q			
44+20	0.0000	0.74	q	Q			
44+25	0.0000	0.74	q	Q			
44+30	0.0000	0.74	q	Q			
44+35	0.0000	0.74	q	Q			
44+40	0.0000	0.74	q	Q			
44+45	0.0000	0.74	q	Q			
44+50	0.0000	0.74	q	Q			
44+55	0.0000	0.74	q	Q			
45+ 0	0.0000	0.74	q	Q			
45+ 5	0.0000	0.74	q	Q			
45+10	0.0000	0.74	q	Q			
45+15	0.0000	0.74	q	Q			
45+20	0.0000	0.74	q	Q			
45+25	0.0000	0.74	q	Q			
45+30	0.0000	0.74	q	Q			

45+35	0.0000	0.74	q	Q			
45+40	0.0000	0.74	q	Q			
45+45	0.0000	0.74	q	Q			
45+50	0.0000	0.74	q	Q			
45+55	0.0000	0.74	q	Q			
46+ 0	0.0000	0.74	q	Q			
46+ 5	0.0000	0.74	q	Q			
46+10	0.0000	0.74	q	Q			
46+15	0.0000	0.74	q	Q			
46+20	0.0000	0.74	q	Q			
46+25	0.0000	0.74	q	Q			
46+30	0.0000	0.73	q	Q			
46+35	0.0000	0.73	q	Q			
46+40	0.0000	0.73	q	Q			
46+45	0.0000	0.73	q	Q			
46+50	0.0000	0.73	q	Q			
46+55	0.0000	0.73	q	Q			
47+ 0	0.0000	0.73	q	Q			
47+ 5	0.0000	0.73	q	Q			
47+10	0.0000	0.73	q	Q			
47+15	0.0000	0.73	q	Q			
47+20	0.0000	0.73	q	Q			
47+25	0.0000	0.73	q	Q			
47+30	0.0000	0.73	q	Q			
47+35	0.0000	0.73	q	Q			
47+40	0.0000	0.73	q	Q			
47+45	0.0000	0.73	q	Q			
47+50	0.0000	0.73	q	Q			
47+55	0.0000	0.73	q	Q			
48+ 0	0.0000	0.73	q	Q			
48+ 5	0.0000	0.73	q	Q			
48+10	0.0000	0.73	q	Q			
48+15	0.0000	0.73	q	Q			
48+20	0.0000	0.73	q	Q			
48+25	0.0000	0.73	q	Q			
48+30	0.0000	0.73	q	Q			
48+35	0.0000	0.73	q	Q			
48+40	0.0000	0.72	q	Q			
48+45	0.0000	0.72	q	Q			
48+50	0.0000	0.72	q	Q			
48+55	0.0000	0.72	q	Q			
49+ 0	0.0000	0.72	q	Q			
49+ 5	0.0000	0.72	q	Q			
49+10	0.0000	0.72	q	Q			
49+15	0.0000	0.72	q	Q			
49+20	0.0000	0.72	q	Q			
49+25	0.0000	0.72	q	Q			
49+30	0.0000	0.72	q	Q			
49+35	0.0000	0.72	q	Q			
49+40	0.0000	0.72	q	Q			
49+45	0.0000	0.72	q	Q			
49+50	0.0000	0.72	q	Q			
49+55	0.0000	0.72	q	Q			
50+ 0	0.0000	0.72	q	Q			

50+ 5	0.0000	0.72	q	Q			
50+10	0.0000	0.72	q	Q			
50+15	0.0000	0.72	q	Q			
50+20	0.0000	0.72	q	Q			
50+25	0.0000	0.72	q	Q			
50+30	0.0000	0.72	q	Q			
50+35	0.0000	0.72	q	Q			
50+40	0.0000	0.72	q	Q			
50+45	0.0000	0.72	q	Q			
50+50	0.0000	0.71	q	Q			
50+55	0.0000	0.71	q	Q			
51+ 0	0.0000	0.71	q	Q			
51+ 5	0.0000	0.71	q	Q			
51+10	0.0000	0.71	q	Q			
51+15	0.0000	0.71	q	Q			
51+20	0.0000	0.71	q	Q			
51+25	0.0000	0.71	q	Q			
51+30	0.0000	0.71	q	Q			
51+35	0.0000	0.71	q	Q			
51+40	0.0000	0.71	q	Q			
51+45	0.0000	0.71	q	Q			
51+50	0.0000	0.71	q	Q			
51+55	0.0000	0.71	q	Q			
52+ 0	0.0000	0.71	q	Q			
52+ 5	0.0000	0.71	q	Q			
52+10	0.0000	0.71	q	Q			
52+15	0.0000	0.71	q	Q			
52+20	0.0000	0.71	q	Q			
52+25	0.0000	0.71	q	Q			
52+30	0.0000	0.71	q	Q			
52+35	0.0000	0.71	q	Q			
52+40	0.0000	0.71	q	Q			
52+45	0.0000	0.70	q	Q			
52+50	0.0000	0.70	q	Q			
52+55	0.0000	0.70	q	Q			
53+ 0	0.0000	0.70	q	Q			
53+ 5	0.0000	0.70	q	Q			
53+10	0.0000	0.70	q	Q			
53+15	0.0000	0.70	q	Q			
53+20	0.0000	0.70	q	Q			
53+25	0.0000	0.70	q	Q			
53+30	0.0000	0.70	q	Q			
53+35	0.0000	0.70	q	Q			
53+40	0.0000	0.70	q	Q			
53+45	0.0000	0.70	q	Q			
53+50	0.0000	0.70	q	Q			
53+55	0.0000	0.70	q	Q			
54+ 0	0.0000	0.70	q	Q			
54+ 5	0.0000	0.70	q	Q			
54+10	0.0000	0.70	q	Q			
54+15	0.0000	0.70	q	Q			
54+20	0.0000	0.70	q	Q			
54+25	0.0000	0.69	q	Q			
54+30	0.0000	0.69	q	Q			

54+35	0.0000	0.69	q	Q				
54+40	0.0000	0.69	q	Q				
54+45	0.0000	0.69	q	Q				
54+50	0.0000	0.69	q	Q				
54+55	0.0000	0.69	q	Q				
55+ 0	0.0000	0.69	q	Q				
55+ 5	0.0000	0.69	q	Q				
55+10	0.0000	0.69	q	Q				
55+15	0.0000	0.69	q	Q				
55+20	0.0000	0.69	q	Q				
55+25	0.0000	0.69	q	Q				
55+30	0.0000	0.69	q	Q				
55+35	0.0000	0.69	q	Q				
55+40	0.0000	0.69	q	Q				
55+45	0.0000	0.69	q	Q				
55+50	0.0000	0.69	q	Q				
55+55	0.0000	0.69	q	Q				
56+ 0	0.0000	0.69	q	Q				
56+ 5	0.0000	0.68	q	Q				
56+10	0.0000	0.68	q	Q				
56+15	0.0000	0.68	q	Q				
56+20	0.0000	0.68	q	Q				
56+25	0.0000	0.68	q	Q				
56+30	0.0000	0.68	q	Q				
56+35	0.0000	0.68	q	Q				
56+40	0.0000	0.68	q	Q				
56+45	0.0000	0.68	q	Q				
56+50	0.0000	0.68	q	Q				
56+55	0.0000	0.68	q	Q				
57+ 0	0.0000	0.68	q	Q				
57+ 5	0.0000	0.68	q	Q				
57+10	0.0000	0.68	q	Q				
57+15	0.0000	0.68	q	Q				
57+20	0.0000	0.68	q	Q				
57+25	0.0000	0.68	q	Q				
57+30	0.0000	0.68	q	Q				
57+35	0.0000	0.68	q	Q				
57+40	0.0000	0.68	q	Q				
57+45	0.0000	0.67	q	Q				
57+50	0.0000	0.67	q	Q				
57+55	0.0000	0.67	q	Q				
58+ 0	0.0000	0.67	q	Q				
58+ 5	0.0000	0.67	q	Q				
58+10	0.0000	0.67	q	Q				
58+15	0.0000	0.67	q	Q				
58+20	0.0000	0.67	q	Q				
58+25	0.0000	0.67	q	Q				
58+30	0.0000	0.67	q	Q				
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58+40	0.0000	0.67	q	Q				
58+45	0.0000	0.67	q	Q				
58+50	0.0000	0.67	q	Q				
58+55	0.0000	0.67	q	Q				
59+ 0	0.0000	0.67	q	Q				

59+ 5	0.0000	0.67	q	Q			
59+10	0.0000	0.67	q	Q			
59+15	0.0000	0.67	q	Q			
59+20	0.0000	0.67	q	Q			
59+25	0.0000	0.66	q	Q			
59+30	0.0000	0.66	q	Q			
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59+40	0.0000	0.66	q	Q			
59+45	0.0000	0.66	q	Q			
59+50	0.0000	0.66	q	Q			
59+55	0.0000	0.66	q	Q			
60+ 0	0.0000	0.66	q	Q			
60+ 5	0.0000	0.66	q	Q			
60+10	0.0000	0.66	q	Q			
60+15	0.0000	0.66	q	Q			
60+20	0.0000	0.66	q	Q			
60+25	0.0000	0.66	q	Q			
60+30	0.0000	0.66	q	Q			
60+35	0.0000	0.66	q	Q			
60+40	0.0000	0.66	q	Q			
60+45	0.0000	0.66	q	Q			
60+50	0.0000	0.66	q	Q			
60+55	0.0000	0.66	q	Q			
61+ 0	0.0000	0.66	q	Q			
61+ 5	0.0000	0.66	q	Q			
61+10	0.0000	0.65	q	Q			
61+15	0.0000	0.65	q	Q			
61+20	0.0000	0.65	q	Q			
61+25	0.0000	0.65	q	Q			
61+30	0.0000	0.65	q	Q			
61+35	0.0000	0.65	q	Q			
61+40	0.0000	0.65	q	Q			
61+45	0.0000	0.65	q	Q			
61+50	0.0000	0.65	q	Q			
61+55	0.0000	0.65	q	Q			
62+ 0	0.0000	0.65	q	Q			
62+ 5	0.0000	0.65	q	Q			
62+10	0.0000	0.65	q	Q			
62+15	0.0000	0.65	q	Q			
62+20	0.0000	0.65	q	Q			
62+25	0.0000	0.65	q	Q			
62+30	0.0000	0.65	q	Q			
62+35	0.0000	0.65	q	Q			
62+40	0.0000	0.65	q	Q			
62+45	0.0000	0.65	q	Q			
62+50	0.0000	0.65	q	Q			
62+55	0.0000	0.65	q	Q			
63+ 0	0.0000	0.64	q	Q			
63+ 5	0.0000	0.64	q	Q			
63+10	0.0000	0.64	q	Q			
63+15	0.0000	0.64	q	Q			
63+20	0.0000	0.64	q	Q			
63+25	0.0000	0.64	q	Q			
63+30	0.0000	0.64	q	Q			

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63+40	0.0000	0.64	q	Q			
63+45	0.0000	0.64	q	Q			
63+50	0.0000	0.64	q	Q			
63+55	0.0000	0.64	q	Q			
64+ 0	0.0000	0.64	q	Q			
64+ 5	0.0000	0.64	q	Q			
64+10	0.0000	0.64	q	Q			
64+15	0.0000	0.64	q	Q			
64+20	0.0000	0.64	q	Q			
64+25	0.0000	0.64	q	Q			
64+30	0.0000	0.64	q	Q			
64+35	0.0000	0.64	q	Q			
64+40	0.0000	0.64	q	Q			
64+45	0.0000	0.63	q	Q			
64+50	0.0000	0.63	q	Q			
64+55	0.0000	0.63	q	Q			
65+ 0	0.0000	0.63	q	Q			
65+ 5	0.0000	0.63	q	Q			
65+10	0.0000	0.63	q	Q			
65+15	0.0000	0.63	q	Q			
65+20	0.0000	0.63	q	Q			
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65+30	0.0000	0.63	q	Q			
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65+40	0.0000	0.63	q	Q			
65+45	0.0000	0.63	q	Q			
65+50	0.0000	0.63	q	Q			
65+55	0.0000	0.63	q	Q			
66+ 0	0.0000	0.63	q	Q			
66+ 5	0.0000	0.63	q	Q			
66+10	0.0000	0.63	q	Q			
66+15	0.0000	0.63	q	Q			
66+20	0.0000	0.63	q	Q			
66+25	0.0000	0.63	q	Q			
66+30	0.0000	0.63	q	Q			
66+35	0.0000	0.62	q	Q			
66+40	0.0000	0.62	q	Q			
66+45	0.0000	0.62	q	Q			
66+50	0.0000	0.62	q	Q			
66+55	0.0000	0.62	q	Q			
67+ 0	0.0000	0.62	q	Q			
67+ 5	0.0000	0.62	q	Q			
67+10	0.0000	0.62	q	Q			
67+15	0.0000	0.62	q	Q			
67+20	0.0000	0.62	q	Q			
67+25	0.0000	0.62	q	Q			
67+30	0.0000	0.62	q	Q			
67+35	0.0000	0.62	q	Q			
67+40	0.0000	0.62	q	Q			
67+45	0.0000	0.62	q	Q			
67+50	0.0000	0.62	q	Q			
67+55	0.0000	0.62	q	Q			
68+ 0	0.0000	0.62	q	Q			

68+ 5	0.0000	0.62	q	Q				
68+10	0.0000	0.62	q	Q				
68+15	0.0000	0.62	q	Q				
68+20	0.0000	0.62	q	Q				
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68+35	0.0000	0.61	q	Q				
68+40	0.0000	0.61	q	Q				
68+45	0.0000	0.61	q	Q				
68+50	0.0000	0.61	q	Q				
68+55	0.0000	0.61	q	Q				
69+ 0	0.0000	0.61	q	Q				
69+ 5	0.0000	0.61	q	Q				
69+10	0.0000	0.61	q	Q				
69+15	0.0000	0.61	q	Q				
69+20	0.0000	0.61	q	Q				
69+25	0.0000	0.61	q	Q				
69+30	0.0000	0.61	q	Q				
69+35	0.0000	0.61	q	Q				
69+40	0.0000	0.61	q	Q				
69+45	0.0000	0.61	q	Q				
69+50	0.0000	0.61	q	Q				
69+55	0.0000	0.61	q	Q				
70+ 0	0.0000	0.61	q	Q				
70+ 5	0.0000	0.60	q	Q				
70+10	0.0000	0.60	q	Q				
70+15	0.0000	0.60	q	Q				
70+20	0.0000	0.60	q	Q				
70+25	0.0000	0.60	q	Q				
70+30	0.0000	0.60	q	Q				
70+35	0.0000	0.60	q	Q				
70+40	0.0000	0.60	q	Q				
70+45	0.0000	0.60	q	Q				
70+50	0.0000	0.60	q	Q				
70+55	0.0000	0.60	q	Q				
71+ 0	0.0000	0.60	q	Q				
71+ 5	0.0000	0.60	q	Q				
71+10	0.0000	0.60	q	Q				
71+15	0.0000	0.60	q	Q				
71+20	0.0000	0.60	q	Q				
71+25	0.0000	0.60	q	Q				
71+30	0.0000	0.60	q	Q				
71+35	0.0000	0.59	q	Q				
71+40	0.0000	0.59	q	Q				
71+45	0.0000	0.59	q	Q				
71+50	0.0000	0.59	q	Q				
71+55	0.0000	0.59	q	Q				
72+ 0	0.0000	0.59	q	Q				
72+ 5	0.0000	0.59	q	Q				
72+10	0.0000	0.59	q	Q				
72+15	0.0000	0.59	q	Q				
72+20	0.0000	0.59	q	Q				
72+25	0.0000	0.59	q	Q				
72+30	0.0000	0.59	q	Q				

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72+40	0.0000	0.59	q	Q				
72+45	0.0000	0.59	q	Q				
72+50	0.0000	0.59	q	Q				
72+55	0.0000	0.59	q	Q				
73+ 0	0.0000	0.59	q	Q				
73+ 5	0.0000	0.58	q	Q				
73+10	0.0000	0.58	q	Q				
73+15	0.0000	0.58	q	Q				
73+20	0.0000	0.58	q	Q				
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73+40	0.0000	0.58	q	Q				
73+45	0.0000	0.58	q	Q				
73+50	0.0000	0.58	q	Q				
73+55	0.0000	0.58	q	Q				
74+ 0	0.0000	0.58	q	Q				
74+ 5	0.0000	0.58	q	Q				
74+10	0.0000	0.58	q	Q				
74+15	0.0000	0.58	q	Q				
74+20	0.0000	0.58	q	Q				
74+25	0.0000	0.58	q	Q				
74+30	0.0000	0.58	q	Q				
74+35	0.0000	0.58	q	Q				
74+40	0.0000	0.57	q	Q				
74+45	0.0000	0.57	q	Q				
74+50	0.0000	0.57	q	Q				
74+55	0.0000	0.57	q	Q				
75+ 0	0.0000	0.57	q	Q				
75+ 5	0.0000	0.57	q	Q				
75+10	0.0000	0.57	q	Q				
75+15	0.0000	0.57	q	Q				
75+20	0.0000	0.57	q	Q				
75+25	0.0000	0.57	q	Q				
75+30	0.0000	0.57	q	Q				
75+35	0.0000	0.57	q	Q				
75+40	0.0000	0.57	q	Q				
75+45	0.0000	0.57	q	Q				
75+50	0.0000	0.57	q	Q				
75+55	0.0000	0.57	q	Q				
76+ 0	0.0000	0.57	q	Q				
76+ 5	0.0000	0.57	q	Q				
76+10	0.0000	0.56	q	Q				
76+15	0.0000	0.56	q	Q				
76+20	0.0000	0.56	q	Q				
76+25	0.0000	0.56	q	Q				
76+30	0.0000	0.56	q	Q				
76+35	0.0000	0.56	q	Q				
76+40	0.0000	0.56	q	Q				
76+45	0.0000	0.56	q	Q				
76+50	0.0000	0.56	q	Q				
76+55	0.0000	0.56	q	Q				
77+ 0	0.0000	0.56	q	Q				

77+ 5	0.0000	0.56	q	Q				
77+10	0.0000	0.56	q	Q				
77+15	0.0000	0.56	q	Q				
77+20	0.0000	0.56	q	Q				
77+25	0.0000	0.56	q	Q				
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77+40	0.0000	0.56	q	Q				
77+45	0.0000	0.56	q	Q				
77+50	0.0000	0.55	q	Q				
77+55	0.0000	0.55	q	Q				
78+ 0	0.0000	0.55	q	Q				
78+ 5	0.0000	0.55	q	Q				
78+10	0.0000	0.55	q	Q				
78+15	0.0000	0.55	q	Q				
78+20	0.0000	0.55	q	Q				
78+25	0.0000	0.55	q	Q				
78+30	0.0000	0.55	q	Q				
78+35	0.0000	0.55	q	Q				
78+40	0.0000	0.55	q	Q				
78+45	0.0000	0.55	q	Q				
78+50	0.0000	0.55	q	Q				
78+55	0.0000	0.55	q	Q				
79+ 0	0.0000	0.55	q	Q				
79+ 5	0.0000	0.55	q	Q				
79+10	0.0000	0.55	q	Q				
79+15	0.0000	0.55	q	Q				
79+20	0.0000	0.55	q	Q				
79+25	0.0000	0.54	q	Q				
79+30	0.0000	0.54	q	Q				
79+35	0.0000	0.54	q	Q				
79+40	0.0000	0.54	q	Q				
79+45	0.0000	0.54	q	Q				
79+50	0.0000	0.54	q	Q				
79+55	0.0000	0.54	q	Q				
80+ 0	0.0000	0.54	q	Q				
80+ 5	0.0000	0.54	q	Q				
80+10	0.0000	0.54	q	Q				
80+15	0.0000	0.54	q	Q				
80+20	0.0000	0.54	q	Q				
80+25	0.0000	0.54	q	Q				
80+30	0.0000	0.54	q	Q				
80+35	0.0000	0.54	q	Q				
80+40	0.0000	0.54	q	Q				
80+45	0.0000	0.54	q	Q				
80+50	0.0000	0.54	q	Q				
80+55	0.0000	0.54	q	Q				
81+ 0	0.0000	0.54	q	Q				
81+ 5	0.0000	0.53	q	Q				
81+10	0.0000	0.53	q	Q				
81+15	0.0000	0.53	q	Q				
81+20	0.0000	0.53	q	Q				
81+25	0.0000	0.53	q	Q				
81+30	0.0000	0.53	q	Q				

81+35	0.0000	0.53	q	Q				
81+40	0.0000	0.53	q	Q				
81+45	0.0000	0.53	q	Q				
81+50	0.0000	0.53	q	Q				
81+55	0.0000	0.53	q	Q				
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82+ 5	0.0000	0.53	q	Q				
82+10	0.0000	0.53	q	Q				
82+15	0.0000	0.53	q	Q				
82+20	0.0000	0.53	q	Q				
82+25	0.0000	0.53	q	Q				
82+30	0.0000	0.53	q	Q				
82+35	0.0000	0.53	q	Q				
82+40	0.0000	0.53	q	Q				
82+45	0.0000	0.52	q	Q				
82+50	0.0000	0.52	q	Q				
82+55	0.0000	0.52	q	Q				
83+ 0	0.0000	0.52	q	Q				
83+ 5	0.0000	0.52	q	Q				
83+10	0.0000	0.52	q	Q				
83+15	0.0000	0.52	q	Q				
83+20	0.0000	0.52	q	Q				
83+25	0.0000	0.52	q	Q				
83+30	0.0000	0.52	q	Q				
83+35	0.0000	0.52	q	Q				
83+40	0.0000	0.52	q	Q				
83+45	0.0000	0.52	q	Q				
83+50	0.0000	0.52	q	Q				
83+55	0.0000	0.52	q	Q				
84+ 0	0.0000	0.52	q	Q				
84+ 5	0.0000	0.52	q	Q				
84+10	0.0000	0.52	q	Q				
84+15	0.0000	0.52	q	Q				
84+20	0.0000	0.52	q	Q				
84+25	0.0000	0.52	q	Q				
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84+35	0.0000	0.51	q	Q				
84+40	0.0000	0.51	q	Q				
84+45	0.0000	0.51	q	Q				
84+50	0.0000	0.51	q	Q				
84+55	0.0000	0.51	q	Q				
85+ 0	0.0000	0.51	q	Q				
85+ 5	0.0000	0.51	q	Q				
85+10	0.0000	0.51	q	Q				
85+15	0.0000	0.51	q	Q				
85+20	0.0000	0.51	q	Q				
85+25	0.0000	0.51	q	Q				
85+30	0.0000	0.51	q	Q				
85+35	0.0000	0.51	q	Q				
85+40	0.0000	0.51	q	Q				
85+45	0.0000	0.51	q	Q				
85+50	0.0000	0.51	q	Q				
85+55	0.0000	0.51	q	Q				
86+ 0	0.0000	0.51	q	Q				

86+ 5	0.0000	0.51	q	Q				
86+10	0.0000	0.50	q	Q				
86+15	0.0000	0.50	q	Q				
86+20	0.0000	0.50	q	Q				
86+25	0.0000	0.50	q	Q				
86+30	0.0000	0.50	q	Q				
86+35	0.0000	0.50	q	Q				
86+40	0.0000	0.50	q	Q				
86+45	0.0000	0.50	q	Q				
86+50	0.0000	0.50	q	Q				
86+55	0.0000	0.50	q	Q				
87+ 0	0.0000	0.50	q	Q				
87+ 5	0.0000	0.50	q	Q				
87+10	0.0000	0.50	q	Q				
87+15	0.0000	0.50	q	Q				
87+20	0.0000	0.50	q	Q				
87+25	0.0000	0.50	q	Q				
87+30	0.0000	0.49	q	Q				
87+35	0.0000	0.49	q	Q				
87+40	0.0000	0.49	q	Q				
87+45	0.0000	0.49	q	Q				
87+50	0.0000	0.49	q	Q				
87+55	0.0000	0.49	q	Q				
88+ 0	0.0000	0.49	q	Q				
88+ 5	0.0000	0.49	q	Q				
88+10	0.0000	0.49	q	Q				
88+15	0.0000	0.49	q	Q				
88+20	0.0000	0.48	q	Q				
88+25	0.0000	0.48	q	Q				
88+30	0.0000	0.48	q	Q				
88+35	0.0000	0.48	q	Q				
88+40	0.0000	0.48	q	Q				
88+45	0.0000	0.48	q	Q				
88+50	0.0000	0.48	q	Q				
88+55	0.0000	0.48	q	Q				
89+ 0	0.0000	0.48	q	Q				
89+ 5	0.0000	0.48	q	Q				
89+10	0.0000	0.47	q	Q				
89+15	0.0000	0.47	q	Q				
89+20	0.0000	0.47	q	Q				
89+25	0.0000	0.47	q	Q				
89+30	0.0000	0.47	q	Q				
89+35	0.0000	0.47	q	Q				
89+40	0.0000	0.47	q	Q				
89+45	0.0000	0.47	q	Q				
89+50	0.0000	0.47	q	Q				
89+55	0.0000	0.47	q	Q				
90+ 0	0.0000	0.47	q	Q				
90+ 5	0.0000	0.46	q	Q				
90+10	0.0000	0.46	q	Q				
90+15	0.0000	0.46	q	Q				
90+20	0.0000	0.46	q	Q				
90+25	0.0000	0.46	q	Q				
90+30	0.0000	0.46	q	Q				

90+35	0.0000	0.46	q	Q				
90+40	0.0000	0.46	q	Q				
90+45	0.0000	0.46	q	Q				
90+50	0.0000	0.46	q	Q				
90+55	0.0000	0.45	q	Q				
91+ 0	0.0000	0.45	q	Q				
91+ 5	0.0000	0.45	q	Q				
91+10	0.0000	0.45	q	Q				
91+15	0.0000	0.45	q	Q				
91+20	0.0000	0.45	q	Q				
91+25	0.0000	0.45	q	Q				
91+30	0.0000	0.45	q	Q				
91+35	0.0000	0.45	q	Q				
91+40	0.0000	0.45	q	Q				
91+45	0.0000	0.45	q	Q				
91+50	0.0000	0.44	q	Q				
91+55	0.0000	0.44	q	Q				
92+ 0	0.0000	0.44	q	Q				
92+ 5	0.0000	0.44	q	Q				
92+10	0.0000	0.44	q	Q				
92+15	0.0000	0.44	q	Q				
92+20	0.0000	0.44	q	Q				
92+25	0.0000	0.44	q	Q				
92+30	0.0000	0.44	q	Q				
92+35	0.0000	0.44	q	Q				
92+40	0.0000	0.44	q	Q				
92+45	0.0000	0.43	q	Q				
92+50	0.0000	0.43	q	Q				
92+55	0.0000	0.43	q	Q				
93+ 0	0.0000	0.43	q	Q				
93+ 5	0.0000	0.43	q	Q				
93+10	0.0000	0.43	q	Q				
93+15	0.0000	0.43	q	Q				
93+20	0.0000	0.43	q	Q				
93+25	0.0000	0.43	q	Q				
93+30	0.0000	0.43	q	Q				
93+35	0.0000	0.43	q	Q				
93+40	0.0000	0.43	q	Q				
93+45	0.0000	0.42	q	Q				
93+50	0.0000	0.42	q	Q				
93+55	0.0000	0.42	q	Q				
94+ 0	0.0000	0.42	q	Q				
94+ 5	0.0000	0.42	q	Q				
94+10	0.0000	0.42	q	Q				
94+15	0.0000	0.42	q	Q				
94+20	0.0000	0.42	q	Q				
94+25	0.0000	0.42	q	Q				
94+30	0.0000	0.42	q	Q				
94+35	0.0000	0.42	q	Q				
94+40	0.0000	0.41	q	Q				
94+45	0.0000	0.41	q	Q				
94+50	0.0000	0.41	q	Q				
94+55	0.0000	0.41	q	Q				
95+ 0	0.0000	0.41	q	Q				

95+ 5	0.0000	0.41	q	Q				
95+10	0.0000	0.41	q	Q				
95+15	0.0000	0.41	q	Q				
95+20	0.0000	0.41	q	Q				
95+25	0.0000	0.41	q	Q				
95+30	0.0000	0.41	q	Q				
95+35	0.0000	0.41	q	Q				
95+40	0.0000	0.40	q	Q				
95+45	0.0000	0.40	q	Q				
95+50	0.0000	0.40	q	Q				
95+55	0.0000	0.40	q	Q				
96+ 0	0.0000	0.40	q	Q				
96+ 5	0.0000	0.40	q	Q				
96+10	0.0000	0.40	q	Q				
96+15	0.0000	0.40	q	Q				
96+20	0.0000	0.40	q	Q				
96+25	0.0000	0.40	q	Q				
96+30	0.0000	0.40	q	Q				
96+35	0.0000	0.40	q	Q				
96+40	0.0000	0.40	q	Q				
96+45	0.0000	0.39	q	Q				
96+50	0.0000	0.39	q	Q				
96+55	0.0000	0.39	q	Q				
97+ 0	0.0000	0.39	q	Q				
97+ 5	0.0000	0.39	q	Q				
97+10	0.0000	0.39	q	Q				
97+15	0.0000	0.39	q	Q				
97+20	0.0000	0.39	q	Q				
97+25	0.0000	0.39	q	Q				
97+30	0.0000	0.39	q	Q				
97+35	0.0000	0.39	q	Q				
97+40	0.0000	0.39	q	Q				
97+45	0.0000	0.38	q	Q				
97+50	0.0000	0.38	q	Q				
97+55	0.0000	0.38	q	Q				
98+ 0	0.0000	0.38	q	Q				
98+ 5	0.0000	0.38	q	Q				
98+10	0.0000	0.38	q	Q				
98+15	0.0000	0.38	q	Q				
98+20	0.0000	0.38	q	Q				
98+25	0.0000	0.38	q	Q				
98+30	0.0000	0.38	q	Q				
98+35	0.0000	0.38	q	Q				
98+40	0.0000	0.38	q	Q				
98+45	0.0000	0.38	q	Q				
98+50	0.0000	0.37	q	Q				
98+55	0.0000	0.37	q	Q				
99+ 0	0.0000	0.37	q	Q				
99+ 5	0.0000	0.37	q	Q				
99+10	0.0000	0.37	q	Q				
99+15	0.0000	0.37	q	Q				
99+20	0.0000	0.37	q	Q				
99+25	0.0000	0.37	q	Q				
99+30	0.0000	0.37	q	Q				

99+35	0.0000	0.37	q	Q				
99+40	0.0000	0.37	q	Q				
99+45	0.0000	0.37	q	Q				
99+50	0.0000	0.37	q	Q				
99+55	0.0000	0.36	q	Q				
100+ 0	0.0000	0.36	q	Q				
100+ 5	0.0000	0.36	q	Q				
100+10	0.0000	0.36	q	Q				
100+15	0.0000	0.36	q	Q				
100+20	0.0000	0.36	q	Q				
100+25	0.0000	0.36	q	Q				
100+30	0.0000	0.36	q	Q				
100+35	0.0000	0.36	q	Q				
100+40	0.0000	0.36	q	Q				
100+45	0.0000	0.36	q	Q				
100+50	0.0000	0.36	q	Q				
100+55	0.0000	0.36	q	Q				
101+ 0	0.0000	0.36	q	Q				
101+ 5	0.0000	0.35	q	Q				
101+10	0.0000	0.35	q	Q				
101+15	0.0000	0.35	q	Q				
101+20	0.0000	0.35	q	Q				
101+25	0.0000	0.35	q	Q				
101+30	0.0000	0.35	q	Q				
101+35	0.0000	0.35	q	Q				
101+40	0.0000	0.35	q	Q				
101+45	0.0000	0.35	q	Q				
101+50	0.0000	0.35	q	Q				
101+55	0.0000	0.35	q	Q				
102+ 0	0.0000	0.35	q	Q				
102+ 5	0.0000	0.35	q	Q				
102+10	0.0000	0.35	q	Q				
102+15	0.0000	0.34	q	Q				
102+20	0.0000	0.34	q	Q				
102+25	0.0000	0.34	q	Q				
102+30	0.0000	0.34	q	Q				
102+35	0.0000	0.34	q	Q				
102+40	0.0000	0.34	q	Q				
102+45	0.0000	0.34	q	Q				
102+50	0.0000	0.34	q	Q				
102+55	0.0000	0.34	q	Q				
103+ 0	0.0000	0.33	q	Q				
103+ 5	0.0000	0.33	q	Q				
103+10	0.0000	0.33	q	Q				
103+15	0.0000	0.33	q	Q				
103+20	0.0000	0.33	q	Q				
103+25	0.0000	0.32	q	Q				
103+30	0.0000	0.32	q	Q				
103+35	0.0000	0.32	q	Q				
103+40	0.0000	0.32	q	Q				
103+45	0.0000	0.31	q	Q				
103+50	0.0000	0.31	q	Q				
103+55	0.0000	0.31	q	Q				
104+ 0	0.0000	0.31	q	Q				

104+ 5	0.0000	0.31	q	Q				
104+10	0.0000	0.30	q	Q				
104+15	0.0000	0.30	q	Q				
104+20	0.0000	0.30	q	Q				
104+25	0.0000	0.30	q	Q				
104+30	0.0000	0.30	q	Q				
104+35	0.0000	0.29	q	Q				
104+40	0.0000	0.29	q	Q				
104+45	0.0000	0.29	q	Q				
104+50	0.0000	0.29	q	Q				
104+55	0.0000	0.29	q	Q				
105+ 0	0.0000	0.28	q	Q				
105+ 5	0.0000	0.28	q	Q				
105+10	0.0000	0.28	q	Q				
105+15	0.0000	0.28	q	Q				
105+20	0.0000	0.28	q	Q				
105+25	0.0000	0.27	q	Q				
105+30	0.0000	0.27	q	Q				
105+35	0.0000	0.27	q	Q				
105+40	0.0000	0.27	q	Q				
105+45	0.0000	0.27	q	Q				
105+50	0.0000	0.26	q	Q				
105+55	0.0000	0.26	q	Q				
106+ 0	0.0000	0.26	q	Q				
106+ 5	0.0000	0.26	q	Q				
106+10	0.0000	0.26	q	Q				
106+15	0.0000	0.26	q	Q				
106+20	0.0000	0.25	q	Q				
106+25	0.0000	0.25	q	Q				
106+30	0.0000	0.25	q	Q				
106+35	0.0000	0.25	q	Q				
106+40	0.0000	0.25	q	Q				
106+45	0.0000	0.25	q	Q				
106+50	0.0000	0.24	q	Q				
106+55	0.0000	0.24	q	Q				
107+ 0	0.0000	0.24	q	Q				
107+ 5	0.0000	0.24	q	Q				
107+10	0.0000	0.24	q	Q				
107+15	0.0000	0.24	q	Q				
107+20	0.0000	0.23	q	Q				
107+25	0.0000	0.23	q	Q				
107+30	0.0000	0.23	q	Q				
107+35	0.0000	0.23	q	Q				
107+40	0.0000	0.23	q	Q				
107+45	0.0000	0.23	q	Q				
107+50	0.0000	0.22	q	Q				
107+55	0.0000	0.22	q	Q				
108+ 0	0.0000	0.22	q	Q				
108+ 5	0.0000	0.22	q	Q				
108+10	0.0000	0.22	q	Q				
108+15	0.0000	0.22	q	Q				
108+20	0.0000	0.22	q	Q				
108+25	0.0000	0.21	q	Q				
108+30	0.0000	0.21	q	Q				

108+35	0.0000	0.21	q Q	|	|	|	|
108+40	0.0000	0.21	q Q	|	|	|	|
108+45	0.0000	0.21	q Q	|	|	|	|
108+50	0.0000	0.21	q Q	|	|	|	|
108+55	0.0000	0.21	q Q	|	|	|	|
109+ 0	0.0000	0.20	q Q	|	|	|	|
109+ 5	0.0000	0.20	q Q	|	|	|	|
109+10	0.0000	0.20	q Q	|	|	|	|
109+15	0.0000	0.20	q Q	|	|	|	|
109+20	0.0000	0.20	q Q	|	|	|	|
109+25	0.0000	0.20	q Q	|	|	|	|
109+30	0.0000	0.20	q Q	|	|	|	|
109+35	0.0000	0.19	q Q	|	|	|	|
109+40	0.0000	0.19	q Q	|	|	|	|
109+45	0.0000	0.19	q Q	|	|	|	|
109+50	0.0000	0.19	q Q	|	|	|	|
109+55	0.0000	0.19	q Q	|	|	|	|
110+ 0	0.0000	0.19	q Q	|	|	|	|
110+ 5	0.0000	0.19	q Q	|	|	|	|
110+10	0.0000	0.18	q Q	|	|	|	|
110+15	0.0000	0.18	q Q	|	|	|	|
110+20	0.0000	0.18	q Q	|	|	|	|
110+25	0.0000	0.18	q Q	|	|	|	|
110+30	0.0000	0.18	q Q	|	|	|	|
110+35	0.0000	0.17	q Q	|	|	|	|
110+40	0.0000	0.17	q Q	|	|	|	|
110+45	0.0000	0.16	q Q	|	|	|	|
110+50	0.0000	0.16	q Q	|	|	|	|
110+55	0.0000	0.15	q Q	|	|	|	|
111+ 0	0.0000	0.15	q Q	|	|	|	|
111+ 5	0.0000	0.14	q Q	|	|	|	|
111+10	0.0000	0.14	qQ	|	|	|	|
111+15	0.0000	0.14	qQ	|	|	|	|
111+20	0.0000	0.13	qQ	|	|	|	|
111+25	0.0000	0.13	qQ	|	|	|	|
111+30	0.0000	0.12	qQ	|	|	|	|
111+35	0.0000	0.12	qQ	|	|	|	|
111+40	0.0000	0.12	qQ	|	|	|	|
111+45	0.0000	0.11	qQ	|	|	|	|
111+50	0.0000	0.11	qQ	|	|	|	|
111+55	0.0000	0.11	qQ	|	|	|	|
112+ 0	0.0000	0.10	qQ	|	|	|	|
112+ 5	0.0000	0.10	qQ	|	|	|	|
112+10	0.0000	0.10	qQ	|	|	|	|
112+15	0.0000	0.09	qQ	|	|	|	|
112+20	0.0000	0.09	qQ	|	|	|	|
112+25	0.0000	0.09	qQ	|	|	|	|
112+30	0.0000	0.09	qQ	|	|	|	|
112+35	0.0000	0.08	qQ	|	|	|	|
112+40	0.0000	0.08	qQ	|	|	|	|
112+45	0.0000	0.08	qQ	|	|	|	|
112+50	0.0000	0.08	qQ	|	|	|	|
112+55	0.0000	0.07	qQ	|	|	|	|
113+ 0	0.0000	0.07	Q	|	|	|	|

113+ 5	0.0000	0.07	Q	|	|	|	|
113+10	0.0000	0.07	Q	|	|	|	|
113+15	0.0000	0.06	Q	|	|	|	|
113+20	0.0000	0.06	Q	|	|	|	|
113+25	0.0000	0.06	Q	|	|	|	|
113+30	0.0000	0.06	Q	|	|	|	|
113+35	0.0000	0.06	Q	|	|	|	|
113+40	0.0000	0.06	Q	|	|	|	|
113+45	0.0000	0.05	Q	|	|	|	|
113+50	0.0000	0.05	Q	|	|	|	|
113+55	0.0000	0.05	Q	|	|	|	|
114+ 0	0.0000	0.05	Q	|	|	|	|
114+ 5	0.0000	0.05	Q	|	|	|	|
114+10	0.0000	0.05	Q	|	|	|	|
114+15	0.0000	0.04	Q	|	|	|	|
114+20	0.0000	0.04	Q	|	|	|	|
114+25	0.0000	0.04	Q	|	|	|	|
114+30	0.0000	0.04	Q	|	|	|	|
114+35	0.0000	0.04	Q	|	|	|	|
114+40	0.0000	0.04	Q	|	|	|	|
114+45	0.0000	0.04	Q	|	|	|	|
114+50	0.0000	0.04	Q	|	|	|	|
114+55	0.0000	0.03	Q	|	|	|	|
115+ 0	0.0000	0.03	Q	|	|	|	|
115+ 5	0.0000	0.03	Q	|	|	|	|
115+10	0.0000	0.03	Q	|	|	|	|
115+15	0.0000	0.03	Q	|	|	|	|
115+20	0.0000	0.03	Q	|	|	|	|
115+25	0.0000	0.03	Q	|	|	|	|
115+30	0.0000	0.03	Q	|	|	|	|
115+35	0.0000	0.03	Q	|	|	|	|
115+40	0.0000	0.03	Q	|	|	|	|
115+45	0.0000	0.03	Q	|	|	|	|
115+50	0.0000	0.02	Q	|	|	|	|
115+55	0.0000	0.02	Q	|	|	|	|
116+ 0	0.0000	0.02	Q	|	|	|	|
116+ 5	0.0000	0.02	Q	|	|	|	|
116+10	0.0000	0.02	Q	|	|	|	|
116+15	0.0000	0.02	Q	|	|	|	|
116+20	0.0000	0.02	Q	|	|	|	|
116+25	0.0000	0.02	Q	|	|	|	|
116+30	0.0000	0.02	Q	|	|	|	|
116+35	0.0000	0.02	Q	|	|	|	|
116+40	0.0000	0.02	Q	|	|	|	|
116+45	0.0000	0.02	Q	|	|	|	|
116+50	0.0000	0.02	Q	|	|	|	|
116+55	0.0000	0.02	Q	|	|	|	|
117+ 0	0.0000	0.02	Q	|	|	|	|
117+ 5	0.0000	0.02	Q	|	|	|	|
117+10	0.0000	0.02	Q	|	|	|	|
117+15	0.0000	0.01	Q	|	|	|	|
117+20	0.0000	0.01	Q	|	|	|	|
117+25	0.0000	0.01	Q	|	|	|	|
117+30	0.0000	0.01	Q	|	|	|	|

117+35	0.0000	0.01	Q				
117+40	0.0000	0.01	Q				
117+45	0.0000	0.01	Q				
117+50	0.0000	0.01	Q				
117+55	0.0000	0.01	Q				
118+ 0	0.0000	0.01	Q				
118+ 5	0.0000	0.01	Q				
118+10	0.0000	0.01	Q				
118+15	0.0000	0.01	Q				
118+20	0.0000	0.01	Q				
118+25	0.0000	0.01	Q				
118+30	0.0000	0.01	Q				
118+35	0.0000	0.01	Q				
118+40	0.0000	0.01	Q				
118+45	0.0000	0.01	Q				
118+50	0.0000	0.01	Q				
118+55	0.0000	0.01	Q				
119+ 0	0.0000	0.01	Q				
119+ 5	0.0000	0.01	Q				
119+10	0.0000	0.01	Q				
119+15	0.0000	0.01	Q				
119+20	0.0000	0.01	Q				
119+25	0.0000	0.01	Q				
119+30	0.0000	0.01	Q				
119+35	0.0000	0.01	Q				
119+40	0.0000	0.01	Q				
119+45	0.0000	0.01	Q				
119+50	0.0000	0.01	Q				
119+55	0.0000	0.01	Q				
120+ 0	0.0000	0.01	Q				
120+ 5	0.0000	0.01	Q				
120+10	0.0000	0.00	Q				
120+15	0.0000	0.00	Q				
120+20	0.0000	0.00	Q				
120+25	0.0000	0.00	Q				
120+30	0.0000	0.00	Q				
120+35	0.0000	0.00	Q				
120+40	0.0000	0.00	Q				
120+45	0.0000	0.00	Q				
120+50	0.0000	0.00	Q				
120+55	0.0000	0.00	Q				
121+ 0	0.0000	0.00	Q				
121+ 5	0.0000	0.00	Q				
121+10	0.0000	0.00	Q				
121+15	0.0000	0.00	Q				
121+20	0.0000	0.00	Q				
121+25	0.0000	0.00	Q				
121+30	0.0000	0.00	Q				
121+35	0.0000	0.00	Q				
121+40	0.0000	0.00	Q				
121+45	0.0000	0.00	Q				
121+50	0.0000	0.00	Q				
121+55	0.0000	0.00	Q				
122+ 0	0.0000	0.00	Q				

```
 122+ 5        0.0000       0.00  Q          |          |          |          |
 122+10        0.0000       0.00  Q          |          |          |          |
 122+15        0.0000       0.00  Q          |          |          |          |
 122+20        0.0000       0.00  Q          |          |          |          |
 122+25        0.0000       0.00  Q          |          |          |          |
 122+30        0.0000       0.00  Q          |          |          |          |
 122+35        0.0000       0.00  Q          |          |          |          |
 122+40        0.0000       0.00  Q          |          |          |          |
 122+45        0.0000       0.00  Q          |          |          |          |
 122+50        0.0000       0.00  Q          |          |          |          |
 122+55        0.0000       0.00  Q          |          |          |          |
 123+ 0        0.0000       0.00  Q          |          |          |          |
 123+ 5        0.0000       0.00  Q          |          |          |          |
 123+10        0.0000       0.00  Q          |          |          |          |
 123+15        0.0000       0.00  Q          |          |          |          |
 123+20        0.0000       0.00  Q          |          |          |          |
 123+25        0.0000       0.00  Q          |          |          |          |
 123+30        0.0000       0.00  Q          |          |          |          |
 123+35        0.0000       0.00  Q          |          |          |          |
 123+40        0.0000       0.00  Q          |          |          |          |
 123+45        0.0000       0.00  Q          |          |          |          |
 123+50        0.0000       0.00  Q          |          |          |          |
 123+55        0.0000       0.00  Q          |          |          |          |
 124+ 0        0.0000       0.00  Q          |          |          |          |
 124+ 5        0.0000       0.00  Q          |          |          |          |
 124+10        0.0000       0.00  Q          |          |          |          |
 124+15        0.0000       0.00  Q          |          |          |          |
 124+20        0.0000       0.00  Q          |          |          |          |
 124+25        0.0000       0.00  Q          |          |          |          |
 124+30        0.0000       0.00  Q          |          |          |          |
---------------------------------------------------------------------------
     ****************************HYDROGRAPH DATA****************************
                Number of intervals =  1494
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        2.840 (CFS)
                Total volume =       7.371 (Ac.Ft)
          Status of hydrographs being held in storage
                     Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
          Peak (CFS)       0.000     0.000     0.000     0.000     0.000
          Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     ***********************************************************************

     ---------------------------------------------------------------------
```